

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

NOV 1 0 2003

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

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

Dear Mr. Wells:

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Subject: Touchdown 5 Herbicide (Update First Aid)

EPA Registration No. 100-1108 Application Dated August 8, 2003

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 before you release the product for shipment.

- 1. At the beginning of the list of Personal Protective Equipment (PPE) within the Precautionary Statements, add the statements "Some of the materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart." In addition, revise the equipment for "waterproof gloves" to a requirement for "chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- 2. Within the list of PPE for early re-entry in the Agricultural Use Requirements box, revise the requirement for "waterproof gloves" to a requirement for "chemical-resistant gloves made of any waterproof material."
- 3. Refer to the attachment entitled Spray Drift Management for language required for all products that permit aerial application.
- 4. The following maximum rate statement must be added to your label.
- -The maximum rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate-
- 5. Add a statement similar to the following to the areas of your label where generic tank-mix partners such as 2, 4-D or dicamba are listed.

.-This product may be tank-mixed with the products listed provided the product tank-mixed is registered for use on this site.

Submit three (3) copies of your final printed labeling incorporating the above changes before you release the product for shipment Amended labeling supercedes all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

James A. Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505C)

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#### Attachment-Spray Drift Management

Under the heading Spray Drift Management the text should read as follows:

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

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

Importance of Droplet Size

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

Controlling Droplet Size

Volume-Use high flow rate nozzles to apply the highest practical spay volume. Nozzles with higher rated flows produce larger droplets.

Pressure-Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles-Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation-Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type-Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length-For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

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

#### Swath Adjustment

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

#### Wind

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

#### Temperature and Humidity

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

#### Temperature Inversions

. . . . .

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

#### Sensitive Areas

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

#### Touchdown® 5 Herbicide

#### NONSELECTIVE FOLIAR SYSTEMIC HERBICIDE FOR WEED CONTROL

Active Ingredient:

Sulfosate	48.6%
Inert Ingredients:	51.4%
Total	100.0%

Contains 5 pounds active ingredient per gallon.

#### **KEEP OUT OF REACH OF CHILDREN**

#### **CAUTION**

See additional precautionary statements and directions for use (inside booklet; on back panel; on side panel)

EPA Reg. No.: 100-1108

EPA Est. No.:

ACCEPTED
with COMMENTS
In EPA Letter Dated:

NOV 1 0 2003

Product of Belgium
Formulated and Packaged in USA.

Under the Federal Insecticide, Fungicide, and Radentiside Act, as amended, for the pesticide registered under EPA Reg. No. 100-1108

SCP xxxx

Net Weight/U.S. Standard Measure

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	FIRST AID
lf on skin or	Take off contaminated clothing.
clothing	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15- 20 minutes.</li> </ul>
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> </ul>
ļ	<ul> <li>Have person sip a glass of water if able to swallow.</li> </ul>
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	Move person to fresh air.
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> </ul>
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
Have the produ	ct container or label with you when calling a poison control center or
doctor, or going	r for treatment.

#### **HOT LINE NUMBER**

For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372

#### **PRECAUTIONARY STATEMENTS**

#### **Hazards to Humans And Domestic Animals**

#### **CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

#### **Personal Protective Equipment**

Applicators and other handlers must wear: long sleeved shirt and long pants, socks and shoes, and waterproof gloves.

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.

#### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal 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.

**DRIFT:** Caution must be taken when applying Touchdown 5 to avoid drift or contact with nontarget plant species. Such contact may result in plant injury.

#### 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 asmanner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Syngenta Crop Protection, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Syngenta and Seller harmless for any claims relating to such factors.

Syngenta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. 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 Syngenta, and Buyer and User assume the risk of any such use. SYNGENTA 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 Syngenta 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 SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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.

#### NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

#### STORAGE AND DISPOSAL

#### Pesticide Storage

Do not contaminate water, food, or feed by storage and disposal. Keep container tightly closed when not in use. For help with any spill, leak, fire, or accident involving this material, call 1-800-888-8372.

#### **Pesticide Disposal**

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### **Container Disposal**

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.

#### FOR RECYCLABLE/REFILLABLE CONTAINERS:

Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

**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 IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

#### **GENERAL INFORMATION**

Touchdown 5 is a nonselective foliar systemic herbicide used to control a broad spectrum of emerged grass and broadleaf weeds, both annual and perennial, in:

- berries, fruits, nuts, vegetables, and vines specified on this label
- conservation compliance/conservation reserve program (CRP)
- com
- fallowland and postharvest
- · soybeans, including glyphosate-tolerant
- wheat
- certain noncrop areas around the farm specified on this label

Touchdown 5 is formulated as a liquid concentrate which contains 5 pounds active ingredient per gallon.

#### **GENERAL USE PRECAUTIONS**

- Touchdown 5 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.
- Touchdown 5 does not provide residual control of weeds. Weeds emerging after application will require retreatment.
- Heavy rainfall or irrigation shortly after application may require retreatment.
- Tillage or mowing within 3 days following application may reduce weed control.
- Do not apply this product through any type of irrigation system.
- DO NOT spray if conditions of thermal inversion exist, or if wind direction and speed
  may cause spray to drift onto adjacent nontarget areas. Drift minimization is the
  responsibility of the applicator. Consult with local and State agricultural authorities
  for information regarding avoiding or minimizing spray drift.
- It is recommended that the spray system be thoroughly cleaned with water and a commercial tank cleaner after each use.
- Stainless steel, plastic-lined steel, plastic or fiberglass containers are acceptable for mixing and storing Touchdown 5. Touchdown 5 should not be mixed or stored in galvanized steel or unlined steel containers. Touchdown 5 is not compatible with carbon steel.
- Any crop not listed on this label may be planted back into Touchdown 5 treated areas 35 days after application.
- Do not exceed a total of 6.4 pints of Touchdown 5 per acre per year in corn.
- Do not exceed a total of 12.8 pints of Touchdown 5 per acre per year in all other uses on this label except corn.
- Do not graze or harvest treated cover crops for feed.

#### **APPLICATION DIRECTIONS**

#### Timing

Touchdown 5 should be applied to actively growing emerged weeds. Annual weeds of 6 inches or less in height are typically the easiest to control. Generally, more effective control of perennial weeds is achieved at the flowering or seedhead stage. Refer to the **WEEDS CONTROLLED** section, beginning on Page \_\_\_\_\_, for specific application timing.

When annual weeds have been mowed or grazed, wait for 3-4 inches of new growth to appear prior to application. When perennial weeds have been mowed or grazed, allow new growth to reach recommended stage prior to application.

#### Rates

Follow recommended rates for Touchdown 5 listed in the **WEEDS CONTROLLED** section, beginning on Page \_\_\_\_\_. Use the higher label rates when weeds are dense or large. Also, use higher application volumes and pressures when weed vegetation is dense. The following table will assist in rate conversions:

	<b>TOUCHDOWN 5 RATE</b>	<b>CONVERSION TABL</b>	E
LBS AI/A	FL OZS/A	PINTS/A	ACRES/ GALLON
0.5	12.8	0.8	10
0.625	16.0	1.0	8
0.75	19.2	1.2	6.7
1.0	25.6	1.6	5
1.5	38.4	2.4	3.3
2.0	51.2	3.2	2.5
3.0	76.8	4.8	1.7
4.0	102.4	6.4	1.25
6.0	153.6	9.6	0.8
8.0	204.8	12.8	0.63

#### **SPRAY ADDITIVES**

#### **Surfactants/Wetting Agents**

A nonionic surfactant (NIS) or wetting agent (approved for use on growing crops) may be used at levels up to 0.25% v/v (1 quart NIS or wetting agent/100 gallons) of finished spray volumes. All nonionic surfactants or wetting agents should contain at least 75% active ingredient.

#### **Ammonium Sulfate (AMS)**

Control of annual and perennial weeds with Touchdown 5 may be improved by adding dry ammonium sulfate at 1 - 2% by weight or 8.5 - 17 pounds per 100 gallons of water. Liquid formulations of AMS may be used at an equivalent rate. Do not reduce use rates of Touchdown 5 when using AMS.

#### TANK MIXES WITH RESIDUAL HERBICIDES

Refer to crop sections for recommended tank mixes. Tank mixes of Touchdown 5 with other pesticides, fertilizers, or any other additives except as specified on this label or other approved Syngenta supplemental labeling may result in tank—mix incompatibility or unsatisfactory performance. It is recommended that the compatibility of any tank—mix combination be tested on a small scale such as a jar test before actual tank mixing.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

#### **Tank Mixing Recommendations:**

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

#### **APPLICATION EQUIPMENT & TECHNIQUES**

- Avoid drift. Do not apply in low level inversion conditions, when winds are gusty or under any other conditions which favor drift. Inversions are characterized by stable air and increasing temperatures with height above the ground. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer. Drift may cause damage to any vegetation contacted to which treatment is not intended.
- Drift control additives may be used with Touchdown 5. Read and follow the manufacturer's directions for use.
- All aerial equipment must be properly maintained and washed to remove product residues after use.

#### **Broadcast Applications**

#### Ground

Applications should be made in 3 to 40 gallons of water per acre.

When foliage is dense, spray volume should be increased to ensure coverage of the target weeds. Flat-fan nozzles will result in the most effective application of Touchdown 5. Spray boom and nozzle heights must be adjusted to provide coverage of target weed. Flood nozzles may result in reduced weed control due to inadequate coverage.

#### Air

Applications should be made in 3 to 15 gallons of water per acre.

Spray should be released at the lowest height consistent with effective weed control and flight safety. Applications more than 10 feet above the canopy should be avoided.

Use the largest droplet size consistent with good weed control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding inappropriate spray boom pressure. Solid stream or low shear nozzles may be utilized to reduce small droplet formation. These nozzles direct the fluid parallel to the existing airflow to reduce shear effects. Other techniques may include reducing the fan angle of flat fan nozzles if used, or reducing the deflector plate angle if deflector type nozzles are used. Ensure the spray is released at an appropriate distance below the airfoil.

For best results, each specific aerial application vehicle used should be quantifiably pattern tested for aerial application of Touchdown 5 herbicide initially and every year thereafter. To minimize drift, it is suggested aerial application equipment produce the following minimum spray deposition characteristics:

Volume Median Diameter (VMD)	> 400 microns
Volume Diameter (VD) {0.9}	> 200 microns

#### **Spot Treatments**

For annual weeds less than 6 inches, use a 0.4 to 0.75% v/v solution. For annual weeds over 6 inches, use a 0.75 to 1.5% v/v solution. Use a 1 to 2% v/v solution for most perennials (see Table 4 for specific rates and timing). When using motorized spot spray equipment (rider bar), use a 3% v/v solution. See Spot Spray Dilution Table below for rates of Touchdown 5/volume of finished spray solution. Spray the solution on actively growing weeds until uniformly wet but not to the point of runoff. Retreat 14-21 days later if regrowth occurs.

Touchdown 5 Herbicide S	Spot Spray	/ Dilution	Table
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	To Make This Volume			
Solution Strength	1 gallon	10 gallons	25 gallons	100 gallons
0.4%	0.5 fl oz	5 fl oz	0.8 pints	3.2 pints
0.75%	1 fl oz	0.6 pints	1.5 pints	3 quarts
1%	1.3 fl ozs	0.8 pints	2 pints	1 gallon
1.25%	1.6 fl ozs	1 pint	2.5 pints	5 quarts
1.5%	2 fl ozs	1.25 pints	3 pints	6 quarts
2%	2.6 fl ozs	1.5 pints	4 pints	2 gallons
3%	4 fl ozs	2.5 pints	6 pints	3 gallons

#### Wiper Application

Touchdown 5 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. Mix 1 quart of Touchdown 5 in 1 gallon of water. Precautions should be taken to avoid contact with crops or desirable vegetation. 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. Do not use wiper applications in corn or in bearing grape vineyards.

#### **CROPS**

This section is organized alphabetically by crop categories. There may be several crops listed in a crop category.

Any crop not listed on this label may be planted back into Touchdown 5 treated areas 35 days after Touchdown 5 application.

#### BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES

Touchdown 5 may be used on both bearing and nonbearing crops listed below.

BEARING CROPS	NONBEARING CROPS

Touchdown 5 can be used 1 year or more prior to harvest in these crops.

Almond	Acerola (West Indian Cherry)	Huckleberry
Apple	Artichoke	Jaboticaba
Apricot	Asparagus	Jackiruit
Beechnut	Atemoya	Jojoba
Brazil nut	Avocado	Kiwi
Butternut	Banana	Loganberry

#### **BEARING CROPS**

#### **NONBEARING CROPS**

Touchdown 5 can be used 1 year or more prior to harvest in these crops.

Calamondin Cashew

Cherry (sweet, sour, tart)

Chestnut
Chinquapin
Chironja
Citron
Citrus Citron
Crabapple
Filbert (Hazelnut)

Grapefruit Grapes (all) Hickory nut Kumquat Lemon

Lime Loquat Macadamia Mandarin Mayhaw

Nectarine Orange (all)

Orange (all)
Oriental Pear

Peach
Pear
Pecan
Plum (all)
Plumcot
Prune
Pummelo
Quince

Satsuma Mandarin

Tangelo Tangerine Tanger

Walnut (Black, English)

Blackberry Blueberry Boysenberry Breadfruit Canistel

Carambola Cherimoya Cocoa Bean

Coconut
Coffee
Cranberry
Currant
Date

Dewberry Elderberry

Fig Genip Ginseng Gooseberry

Guava

Longan Lychee Mango Olallieberry

Olive Papaya

Passion Fruit
Persimmon
Pineapple
Pistachio
Plantain
Pomegranate

Raspberry (black, red)

Sapodilla Sapote Soursop Sugar Apple Tamarind Tea

Youngberry

METHOD OF APPLICATION: Preplant; preemergence; directed spray (except Cranberry); middles (between rows of trees); strips (in rows of trees); perennial grass suppression (chemical mowing); and wiper/wick applicator equipment.

#### **GENERAL USE**

Applications may be made with boom equipment; shielded sprayers; CDA; hand-held and high-volume wands; lances; orchard guns; or wiper/wick application equipment, except as directed in the GENERAL USE PRECAUTIONS FOR BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES section. Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections of this label. Refer to the WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_, for application rates and timing.

Multiple applications may be necessary to control certain perennial weeds. For residual weed control, tank mix Touchdown 5 with residual herbicides as prescribed in the TANK MIXTURES FOR BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES section, or make multiple applications.

### GENERAL USE PRECAUTIONS FOR BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES

- Do not allow the spray, spray drift, or mist to contact foliage, fruit, shoots, branches, canes, suckers, open wounds or green parts of crops. Contact with any crop part other than mature brown woody bark can result in severe crop injury.
- Avoid contact with stumps as injury to adjacent trees may occur from root grafting.
- For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee, apply Touchdown 5 with a shielded applicator which prevents contact with foliage, suckers, or bark of trees. Apply no later than 90 days after first bloom to avoid severe damage. Avoid application to peach trees with recent mechanical injury or pruning wounds. Apply only near trees which have been planted in the orchard for two or more years. SEVERE INJURY WILL OCCUR IF ANY PORTION OF THE PEACH TREE IS CONTACTED WITH SPRAY OR SPRAY DRIFT.
- For APRICOTS, NECTARINES, PEACHES, PLUMS and PRUNES grown in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington, any application equipment listed for these crops may be used.
- For APRICOTS, NECTARINES, PEACHES, PLUMS, and PRUNES grown in all other states not previously listed, use only wiper/wick application equipment.
- For **GRAPES** grown in the *Great Lakes and Northeast regions*, apply Touchdown 5 prior to the end of bloom stage to avoid injury, or apply with shielded equipment.

- For COFFEE and BANANA, delay application 3 months after transplanting to allow the new plants to become established.
- Allow at least 13 days from the last application to harvest of citrus, pome, or stone fruit.
- Allow at least 14 days from the last application to harvest of grapes.
- Allow at least 20 days from the last application to harvest of nuts.

# TANK MIXTURES WITH RESIDUAL HERBICIDES AND 2,4-D FOR BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES

Touchdown 5 can be tank mixed with the following herbicides for control or suppression of annual and perennial weeds provided that the tank—mix product label allows use of the product. Refer to the WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_\_, for application rates and timing. Apply Touchdown 5 at 1.2 to 6.4 pints/A in these tank mixes for control or suppression of annual and perennial weeds. For control or suppression of dense populations or weeds greater than 12 inches in height or weeds under stress, consider use rates at the higher end of the rate range.

DEVRINOL®	Krovar®	Sim-Trol®
Direx®	Princep® 4L	Sinbar®
Goal®	Princep Caliber 90®	Solicam®
Karmex®	Prowl®	Surflan®
Kerb®	Simazine	2,4-D

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

### HARD TO CONTROL WEED RECOMMENDATIONS IN CITRUS (FLORIDA AND TEXAS ONLY)

To control or suppress the perennial weeds listed in the following table, apply the recommended rate of Touchdown 5 in 3 to 30 gallons of water per acre. Use 10-30 gallons per acre if weed foliage is dense. Apply when weeds are actively growing. Refer to the **PERENNIAL WEED CONTROL** section, Table 4, for application timing. If weeds have been mowed or grazed, allow new growth to reach recommended growth stage prior to application.



	Rate of Touchdown 5 (Pints per Acre)			
Weed Species	1.6	3.2	4.8	6.4
Bermudagrass	В	В	PC	С
Guineagrass				
Texas and Florida Ridge	В	С	С	С
Florida Flatwoods	NR	В	С	С
Paragrass	В	С	С	С
Torpedograss	NR	<b>S</b> -	PC	PC

B = Burndown

PC = Partial Control

C = Control

S = Suppression

NR = Not Recommended

### PERENNIAL GRASS SUPPRESSION (CHEMICAL MOWING) OF ORCHARD FLOORS

#### **BAHIAGRASS**

Touchdown 5 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 5 at 20 to 30 days after complete green-up or after mowing to 4 inches tall. When a single application is planned, use 5 fluid ounces of Touchdown 5 per acre in 10 to 20 gallons of water. When a sequential application is planned, use 3-1/2 fluid ounces per acre for the first application followed by another application of 3-1/2 fluid ounces per acre 40 to 50 days later.

#### **BERMUDAGRASS**

#### For Suppression Only:

#### **East of the Rocky Mountains:**

Apply 5 to 12 fluid ounces of Touchdown 5 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 5 to 8 fluid ounces per acre if a lesser degree of suppression is desired. A sequential application can be used when regrowth occurs.

#### **West of the Rocky Mountains:**

Apply 12 fluid ounces of Touchdown 5 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 occurred:



#### For Partial Control and Burndown:

Touchdown 5 can be used for burndown and partial control of bermudagrass at 1.6 to 3.2 pints in 3 to 20 gallons of water per acre. Use 1.6 pints east of the Rocky Mountains and 3.2 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 (fine fescue, Kentucky bluegrass, orchardgrass, quackgrass, tall fescue)

For suppression of orchardgrass, fine fescue, tall fescue, and quackgrass, apply 6 fluid ounces of Touchdown 5 in 10 to 20 gallons of water per acre. Add AMS. See **SPRAY ADDITIVES** section for rates.

For suppression of Kentucky bluegrass, use 5 fluid ounces of Touchdown 5. Do not add AMS for suppression of Kentucky bluegrass.

#### CONSERVATION COMPLIANCE/ CONSERVATION RESERVE PROGRAM (CRP)

**METHOD OF APPLICATION:** Rotating out of CRP, site preparation (sequential herbicide applications), dormant beneficial plant management.

 Site Preparation: Prior to application, removal of excessive vegetation by grazing, mowing, burning, etc. may improve control. When annual weeds have been mowed or grazed, wait for 3 to 4 inches of new growth before application. When perennial weeds have been mowed or grazed, allow regrowth to reach recommended stage (see PERENNIAL WEED CONTROL section, Table 4 for rates and timing).

Sequential applications of Touchdown 5 and GRAMOXONE® EXTRA herbicides are effective in controlling established CRP grasses. Refer to the GRAMOXONE EXTRA herbicide label for recommended rates and tank mixes.

# Touchdown 5/GRAMOXONE EXTRA Herbicide Sequential Program: (Spring Application)

Weed Species	Program A	Program B
Fescue Orchardgrass Ryegrass	GRAMOXONE EXTRA at 2-2.5 pints/A followed 7-10 days later with GRAMOXONE EXTRA at 2-2.5 pints/A	Touchdown 5 at 1.6-2.0 pints/A followed 10-14 days later with GRAMOXONE EXTRA at 2-2.5 pints/A

- Dormant Beneficial Plant Applications: Apply 0.6 to 0.8 pints/acre in early spring before desirable species, such as crested and tall wheatgrass, break dormancy.
   Late fall applications can be made after desirable grasses have reached dormancy.
   If perennial grasses are not dormant at time of application, stunting can occur.
- Touchdown 5 may be tank mixed with other herbicides registered for this use such as atrazine, dicamba, and 2,4-D.
- Any crops not listed on this label may be planted back into Touchdown 5 treated areas 35 days after application provided plant back is not prohibited by labels of other products if used in a tank mix or sequential application.

#### CORN (FIELD CORN, POPCORN, AND SEED CORN)

**METHOD OF APPLICATION:** Before, during, or after planting but before crop emergence; spot spray; and postharvest.

Follow the directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections. Refer to the WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_\_, for application rates and timing.

#### GENERAL USE PRECAUTIONS FOR CORN

- Spot application must be made at least 90 days before harvest of corn grain or corn fodder.
- Crop plants contacted by Touchdown 5 will be injured or killed.
- Do not use on sweet corn.
- Do not apply more than 6.4 pints per acre per year.

#### TANK MIXTURES FOR CORN

For Control of Annual Weeds In a Residual Herbicide Tank Mix: Refer to the ANNUAL WEEDS CONTROLLED section, Tables 1 and 2, for application rates and timing. Apply Touchdown 5 at 0.8 - 4.8 pints/A for the control of annual weeds that are less than 6 inches tall and actively growing. When annual weeds are taller than 6 inches or under stress, use 1.6 - 4.8 pints/A of Touchdown 5 herbicide.

For Control or Suppression of Perennial Weeds in a Residual Herbicide Tank Mix: Refer to the PERENNIAL WEEDS CONTROLLED section, Table 4, for application rates and timing. Use rates at the higher end of the rate range when weed populations are dense or plants are under stress. Perennial weeds may require multiple applications for control.

UAN may be used as a carrier at 10 - 70 gallons per acre with 2,4-D, dicamba, or any residual herbicides on the following list. For use with 2,4-D and dicamba on annual and perennial weeds, consult Tables 3 and 4. Reduced weed control may occur on certain weeds as a result of UAN foliar burn which can reduce uptake of Touchdown 5.

Touchdown 5 can be tank mixed with the following products:

AMBUSH®	Dicamba	Lasso®
Atrazine	Dual®	<b>Lightning</b> ™
Axiom™	Dual II®	Linex®
Balance®	Duai II MAGNUM™	Lorox®
Basis®	Extrazine® II	Marksman®
Bicep®	Frontier®	Micro-Tech®
Bicep II®	FULTIME™	Prowl
Bicep II MAGNUM™	Guardsman®	Simazine
Bladex®	Harness®	SURPASS® EC
Broadstrike®	Harness Xtra	SURPASS 100
Bullet®	Hornet™	<b>TOPNOTCH®</b>
Clarity®	KARATE®	WARRIOR®
-	Lariat®	2,4-D

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

#### **FALLOWLAND AND POSTHARVEST USE**

**METHOD OF APPLICATION:** Chemical fallow; fallow beds; stale seedbeds; aid to tillage and postharvest.

Touchdown 5 may be applied during the fallow period prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made 35 days prior to planting.

#### Chemical Fallow - Ecofallow

Touchdown 5 may be used in place of tillage to control annual weeds or volunteer wheat in fallow fields. Repeat applications may be necessary to control weeds emerging after application. Refer to Table 1 and 2 for use rates and timing. Broadcast or spot treatments of Touchdown 5 will control or suppress perennial weeds. Refer to Table 4 for use rates and timing. Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections of this label.



Tank mixes with 2,4-D or dicamba may be used for additional control of annual weeds listed in Table 3. Tank mixtures with atrazine or cyanazine (e.g. Bladex) may provide residual control of weeds listed on their individual product labels. Cyanazine cannot be used after December 31, 2002.

#### **Postharvest Chemical Fallow for Cereals**

Touchdown 5 may be applied after harvest to control newly emerged weeds, volunteer cereals, or weeds which were present at harvest. Allow sufficient time after harvest for weed regrowth to occur before making application. Refer to Table 1 and 2 for use rates and annual weeds controlled. Higher rates may be required for control of large weeds which were present at the time of harvest. Repeat applications may be necessary for fall germinating weeds. Broadcast or spot treatments of Touchdown 5 will control or suppress perennial weeds. Refer to Table 4 for use rates and timing. Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections of this label. Do not graze or harvest treated areas for feed.

Tank mixes with 2,4-D or dicamba may be used for additional control of weeds listed in Table 3. Postharvest tank mixes with atrazine or cyanazine may be used if the field will be planted to corn or sorghum or laid fallow the following season. Tank mixes with atrazine or cyanazine may be applied for residual control of certain annual weeds such as common lambsquarters, kochia, mustards, pigweeds, and volunteer wheat. Tank mixes with residual herbicides may result in reduced performance. Cyanazine cannot be used after December 31, 2002.

#### Aid to Tillage

Touchdown 5 may be used in conjunction with tillage operations in fallow systems to control cheat, downy brome, foxtails, tansy mustard, and volunteer cereals. Apply 0.4 - 0.6 pints/A of Touchdown 5 in 3-10 gallons of water per acre. Apply before weeds exceed 6 inches in height. Application must be followed by tillage no later than 15 days after treatment or before weed regrowth. Allow at least one day after application before tillage. Tank mixes with residual herbicides may reduce performance. Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections of this label.

#### Fallow Beds/Stale Seedbeds

Touchdown 5 may be used to control weeds in fallow or stale seedbeds. Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections of this label. Refer to WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_, for application rates and timing. Touchdown 5 can be tank mixed with 2,4-D, dicamba, or Goa! nerbicide for improved control of certain weeds.

#### Postharvest Use

Touchdown 5 may be applied after harvest of any crop to control newly emerged weeds, volunteer crops, or weeds which were present at harvest. Refer to **WEEDS CONTROLLED** Section, beginning on Page \_\_\_\_\_, for use rates. Repeat applications may be necessary to control weeds emerging after application. Use the higher rate on heavy or sodded infestations.

#### GENERAL USE PRECAUTIONS FOR FALLOWLAND AND POSTHARVEST USE

- For any crop not listed on this label, Touchdown 5 applications must be made 35 days prior to planting.
- Allow sufficient time for weed regrowth to occur after harvest before making applications.
- Avoid application after plants have been exposed to a severe frost.
- Refer to the individual labels of all products used in a tank mix for precautionary statements, recropping intervals, restrictions, and a list of weeds controlled.
- Touchdown 5 will not control volunteer glyphosate-tolerant crops.

#### FARMSTEAD (NONCROP)

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

Barrier Strips

Farmyards

Ditchbanks

Fence Rows

Dry Ditches and Canals

**Fuel Storage Areas** 

Equipment Areas

Rights-of-way

Farm Buildings

Soil Bank Land

- Refer to WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_, for application rates and timing.
- Avoid contact with the foliage of ornamentals or other desirable plants.
- Repeat applications may be necessary.

#### **SOYBEANS**

**METHOD OF APPLICATION:** Before, during, or after planting, but before crop emergence; spot spray; wiper/wick; preharvest; post harvest.

Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections. Refer to WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_, for application rates and timing.

#### **PREHARVEST**

Touchdown 5 may be applied preharvest as a broadcast spray with ground or aerial equipment as a harvest aid. Touchdown 5 provides weed control when applied preharvest to soybeans and may aid in crop dry down. Apply to mature soybeans when pods have lost their color.

#### **GENERAL USE PRECAUTIONS FOR SOYBEANS**

- Spot application must be made at least 8 weeks before harvest.
- Wiper/wick application must be made at least 7 days before harvest.
- Soybeans, except glyphosate-tolerant varieties, will be injured or killed when contacted with Touchdown 5.
- Make preharvest applications at least 7 days before harvest with no more than 1.6 pints/acre.
- Do not graze or harvest for hay following harvest aid application.
- Do not apply more than 12.8 pints per acre per year.

#### TANK MIXTURES FOR SOYBEANS (PREPLANT/PREEMERGENCE)

For Control of Annual Weeds in a Residual Herbicide Tank Mix: Refer to the ANNUAL WEEDS CONTROLLED section, Tables 1 and 2, for application rates and timing. Apply Touchdown 5 at 0.8 - 4.8 pints/A for the control of annual weeds that are less than 6 inches tall and actively growing. When annual weeds are taller than 6 inches or under stress, use 1.6 - 4.8 pints/A of Touchdown 5 herbicide.

For Control or Suppression of Perennial Weeds in a Residual Herbicide Tank Mix: Refer to the PERENNIAL WEEDS CONTROLLED section, Table 4, for application rates and timing. Use rates at the higher end of the rate range when weed populations are dense or plants are under stress. Perennial weeds may require multiple applications for control.

For use with 2,4-D on perennial weeds, consult Table 4.

Touchdown 5 can be tank mixed with the following products:

Authority™	Dual II MAGNUM	Lexone®	REFLEX®
Authority Broadleaf	FirstRate™	Linex	Scepter®
Broadstrike®	FLEXSTAR®	Lorox	Sencor®
Canopy®	Frontier	Lorox Plus	Squadron®
Canopy XL	FUSILADE®	Partner®	Steel™
Command®	FUSION®	Preview®	Turbo®
Cover™	Gemini®	Prowl	WARRIOR
Dual	KARATE	Pursuit	2,4-D
Dual II	Lasso	Pursuit Plus	2,4-DB

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

#### SOYBEANS, GLYPHOSATE-TOLERANT (including ROUNDUP READY® soybeans)

METHOD OF APPLICATION: Before, during, or after planting; postemergence; and preharvest in soybean varieties which have been genetically modified to be tolerant to glyphosate based herbicides. Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT & TECHNIQUES sections. Refer to WEEDS CONTROLLED section, beginning on Page \_\_\_\_\_, for application rates and timing. For best results, use minimum rates of 1.2 pints/acre for annual weeds and 1.6 pints/acre for perennials.

#### **GENERAL USE PRECAUTIONS FOR GLYPHOSATE-TOLERANT SOYBEANS**

- Make postemergence applications up to and including the full bloom stage of soybeans at a maximum of 3.2 pints/acre.
- Make preharvest applications at least 7 days before harvest with no more than 1.6 pints per acre.
- Do not graze or harvest for forage or hay.
- Apply no more than 12.8 pints per acre per year.

#### PREPLANT/PREEMERGENCE

Touchdown 5 may be used as a broadcast spray to control emerged annual and perennial weeds. Apply before, during, or after planting of soybeans. Touchdown 5 can be tank mixed with the following products:

Authority	Dual II MAGNUM	Lexone	REFLEX
Authority Broadleaf	FirstRate	Linex	Scepter
Broadstrike	FLEXSTAR	Lorox	Sencor
Canopy	Frontier	Lorox Plus	Squadron
Canopy XL	FUSILADE	Partner	Steel
Command	FUSION	Preview	Turbo
Cover	Gemin <del>i</del>	Prowl	WARRIOR
Dual	KARATE	Pursuit	2,4-D
Dual II	Lasso	Pursuit Plus	2,4-DB

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

#### **POSTEMERGENCE**

#### **ANNUAL WEEDS**

Apply Touchdown 5 at 0.8 - 3.2 pints/acre from cracking through full flowering of soybean plants to control annual weeds. For best results, make the first application of Touchdown 5 at 1.6 pints per acre within 30 days after planting on weeds up to 6 inches tall. Refer to Table 1 and 2 for specific rate information. For any single in-crop application, use a minimum of 0.8 pints per acre of Touchdown 5. Touchdown 5 will not provide residual control. To control new weed flushes, repeat applications may be required.

#### **PERENNIAL WEEDS**

Apply Touchdown 5 at 1.6-3.2 pints per acre to actively growing perennial grasses, sedges, and broadleaf weeds. Applications in crop on glyphosate-tolerant soybeans normally occur before perennial weeds reach the most desirable growth stage for control. Treatments made prior to the timing designated in Table 4 may require retreatment. Best control will be obtained when perennial broadleaf weeds are treated in the early bud to flowering stage and when perennial grasses are in the boot to seedhead stage. Refer to Table 4 for additional rate and timing information.

#### **TANK MIXTURES**

Touchdown 5 may be tank mixed with one or more of the following products:

Basagran® Pursuit
Classic® Raptor™
FirstRate REFLEX

FLEXSTAR Reliance™ STS®

FUSILADE Scepter

FUSION Synchrony® STS®

KARATE WARRIOR Pinnacle® 2.4-DB

Use a minimum of 1.2 pints per acre Touchdown 5 in mixture with postemergent tank mix herbicides on 3 inch tall weeds. Use a minimum of 1.6 pints per acre Touchdown 5 in mixture with postemergent tank mix herbicides on 3-6 inch tall weeds. Under certain conditions, the mixture of Touchdown 5 with one or more of the above mentioned herbicides may result in a reduction of activity. Tank mixes can result in increased crop injury as compared to either product used alone. Refer to individual product labels for precautionary statements, restrictions, rates, and list of weeds controlled.

#### **PREHARVEST**

Touchdown 5 may be applied preharvest as a broadcast spray with ground or aerial equipment as a harvest aid. Touchdown 5 provides weed control when applied preharvest to soybeans. Apply to mature soybeans when pods have lost their color.

#### **WHEAT**

**METHOD OF APPLICATION:** Before, during, or after planting, but before crop emergence; and as a spot spray.

Follow directions listed in the APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES sections. Refer to WEEDS CONTROLLED section, beginning on Page \_\_\_\_, for application rates and timing.

#### **GENERAL USE PRECAUTIONS FOR WHEAT**

- Apply up to 14 days before forage and hay harvest; and up to 8 weeks before grain and straw harvest.
- Crop plants contacted by Touchdown 5 will be injured or killed.
- Do not apply more than 12.8 pints per acre per year.



#### TANK MIXTURES FOR WHEAT

Touchdown 5 can be tank mixed with the following herbicides for control or suppression of annual and perennial weeds:

Dicamba Hoelon® 2,4-D

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

#### **WEEDS CONTROLLED**

Water volumes of 3 to 40 gallons per acre by ground equipment and 3 - 15 gallons by air are recommended. Use the minimum spray volume that provides adequate coverage.

When tank mixing with residual herbicides, refer to the individual crop section for recommendations.

Apply to actively growing weeds.

#### **MAP POSITIONED HERE**

#### TABLE 1 NORTH/SOUTH REGION ANNUAL WEED CONTROL - TOUCHDOWN 5 RATES

Use the higher end of the rate range when stressful growing conditions or dense plant populations exist.

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE					
TEER OF THE ST.	System is the second	MAXIMUM WEED (HEIC					
		3"	6"	12"	18"	18"+	
Barley	Hordeum vulgare		0.6-1.2	0.6-1.6	0.8-2.0	1.2-2.4	
Barnyardgrass	Echinochloa crus-galli	0.8	0.8-1.6	1.6-3.2			
Black nightshade	Solanum nigrum	1.2	0.8-1.6	1.2-3.2			
Bluegrass, annual	Poa annua		0.6-0.8	0.8			
Bluegrass, bulbous	Poa bulbosa			0.8			
Bristly starbur	Acanthospermum hispidum	8.0	0.8-1.2	1.2-1.6			
Brome, downy T	Bromus tectorum	0.6	0.6-0.8	1.0			
Brome, Japanese	Bromus japonicus	0.6	0.8	1.0			
Buckwheat, wild 2	Polygonum convolvulus		1.6				
Buffalobur	Solanum rostratum	1.6	1.6-2.4	2.4			
Burcucumber	Sicyos angulatus		1.2	1.6			
Burgherkin	Cucumis anguria	1.2-1.6	1.6-2.4				
Buttercup <sup>3</sup>	Ranunculus spp.	1.2-1.6					
Camphorweed	Heterotheca subaxillaris		2.4				
Carolina geranium *	Geranium carolinianum	1.6-2.4	2.4-3.2				
Cheat	Bromus secalinus	0.6	0.8	1.0	1.2		
Chickweed, common	Stellaria media		0.6-0.8	0.8	1.2		
Chickweed,	Cerastium vulgatum		0.6-0.8	0.8	1.2		
mouseear				}	ł		
Citronmelon	Citrullus lanatus	1.2-1.6	1.6-2.4				
Cocklebur, common	Xanthium strumarium		0.8	0.8-1.2	1.2-1.6	1.6-2.4	
Coffee senna	Cassia occidentalis	1.2-1.6	1.6-2.4				
Corn 5	Zea mays		***************************************	0.8	1.0-1.6		
Cowpea	Vigna unguiculata	1.2-1.6	1.6-2.4				
Crabgrass 8	Digitaria spp.		0.8-1.2	0.8-1.6	1.2-1.6		
Crotalaria, showy	Crotalaria spectabilis	0.8-1.2	1.2-1.6	1.6-2.4			
Croton, tropic	Croton glandulosus	1.2-1.6	1.6-2.4				
Crowfootgrass	Dactyloctenium aegyptium	0.8	0.8-1.6	1.6-3.2			
Cutleaf eveningprimrose <sup>4</sup>	Oenothera laciniata	1.6-2.4	2.4-3.2				
Fall panicum	Panicum dichotomiflorum	0.8-1.2	1.2-1.6	1.2-2.4			
Filaree	Erodium spp.			2.4			
Fleabane, annual	Erigeron annus		0.8-1.2	1.2-2.4	1.2-2.4		
Fleabane, hairy	Conyza bonariensis		0.8-1.2	1.2-2.4	1.2-2.4		
Fleabane, rough	Erigeron strigosus		0.8-1.2	1.2-2.4	1.2-2.4	:	
Florida beggarweed	Desmodium tortuosum		0.8-1.2	1.2-1.6		*	
Foxtails	Setaria spp.		0.6-1.2	0.8-1.6	0.8-1.6	0.8-1.6	
Goatgrass, jointed	Aegilops cylindrica		0.8	1.0			
Goosegrass	Eleusine indica	0.8	1.2	1.6-2.4		2.4-4.8	
Groundsel, common	Senecio vulgaris		0.8	, ,		2 4.0	

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE					
		MAXIMUM WEED (HEIGHT/LENGTH)					
		3"	6"	12"	18"	18"+	
Hemp sesbania 4	Sesbania exaltata	1.2	1.6-2.4				
Henbit <sup>4</sup>	Lamium amplexicaule		1.6	2.4			
Hophornbeam	Acalypha ostryifolia	1.6	2.4				
copperleaf							
Horseweed/Marestail	Conyza canadensis		0.8-1.2	1.2-1.6	1.6	1.6-2.4	
Itchgrass	Rottboellia cochinchinensis		0.8	1.2	1.6		
Jimsonweed	Datura stramonium	1.2	1.6	2.4			
Johnsongrass, seedling	Sorghum halepense			1.0-1.2	1.2-2.4	2.4	
Kochla 3	Kochia scoparia	0.8	1.2-1.6	1.2-2.4			
Lambsquarters,	Chenopodium album		1.2 -1.6	1.6-2.4	2.4-3.2		
Lettuce, prickly	Lactuca serriola		0.8-1.6	1.2-2.4	<del> </del>	1.6-2.4	
Morningglory * /	Ipomoea spp.	1.2-2.4	1.6-3.2	1.6-4.7		1.0-2.4	
Mustard, blue	Chorispora tenella	0.6-0.8	0.6-0.8	1.0		1.2	
Mustard, tansy	Descurainia pinnata	0.6-0.8	0.6-1.0	1.0		1.2	
Mustard, tumble	Sisymbrium altissimum	0.6-0.8	0.6-0.8	1.0		1.2	
Mustard, wild	Brassica kaber	0.6-0.8	0.6-0.8	0.8		1.2	
Oats	<del></del>	0.0-0.8	0.6-0.8	0.6-1.6	0.8-2.0	1.2-2.4	
A CONTRACT OF THE PARTY OF THE	Avena sativa	<del> </del>			0.0-2.0	1.2-2.4	
Oats, wild Panicum, Texas	Avena fatua		0.6-1.2 0.8-1.2	0.8-1.2	l		
	Panicum texanum			1.6-2.4		<u> </u>	
Pennycress, field	Thlaspi arvense	_	0.6-1.2	1.0-1.6		4.0	
Pigweed Poinsettia, wild	Amaranthus spp.	0040	0.6-0.8	0.8-1.0		1.6	
	Euphorbia heterophylia	0.8-1.2	1.6-2.4 2.4-3.2				
Prickly sida (Teaweed) <sup>4,7</sup>	Sida spinosa	1.2-2.0	2.4-3.2				
	Bortulana darana	4046	1604				
Purslane, common	Portulaca oleracea Richardia scabra	1.2-1.6 1.2-1.6	1.6-2.4 1.6-2.4	2.4-3.2	<u> </u>		
Pusley, Florida		1.2-1.0					
Ragweed, common	Ambrosia artemisiifolia	4 ~	0.8-1.2	1.2-3.2	4630	2422	
Ragweed, giant	Ambrosia trifida	1.2	1.6	1.6-2.4	1.6-3.2	2.4-3.2	
Red rice	Oryza sativa	1.6 1.2-1.6	2.4-3.2	<u> </u>		- Huy	
Redweed	Melochia corchorifolia		1.6-2.4	0010			
Rocket, London	Sisymbrrium irio Secale cereale	0.6	0.6-0.8 0.6-1.2	0.8-1.0 0.8-1.6	1.2-2.0	1.6-2.4	
Rye talia					1.2-2.0	1.0-2.4	
Ryegrass, Italian	Lollum multiflorum		1.6	2.4-3.2			
Sandbur, field	Cenchrus incertus		1046	0.6			
Sandbur, southern	Cenchrus echinatus	0.8	1.2-1.6	1.6-2.4	10	4.5	
Shattercane	Sorghum bicolor		0040	0.8-1.0	1.2	1.2	
Shepherdspurse	Capsella bursa-pastoris	1	0.8-1.0	1.2-1.6			
Sicklepod	Cassia obtusifolia	1.6	2.4-3.2	4000			
Signalgrass,	Brachiaria platyphylla	0.8	1.0-1.6	1.6-3.2	<u> </u>		
broadleaf Smortuned	Pohygonym poznácada	10040	1.2-1.6	4624			
Smartweed (ladysthumb)	Polygonum persicaria	0.8-1.0		1.6-2.4		1	
Smartweed,	Polygonum	0.8-1.0	1.2-1.6	1.6-2.4		t	
Pennsylvania	pensylvanicum					,	
Sowthistle, annual	Sonchus oleraceus		1.6	2.4			
Spanishneedles	Bidens bipinnata		1.6	1.6,2.4	2.4		
Sprangletop	Leptochloa spp.		0.8	1.2	, ' ;	• 1•6	

WEED ODECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE				
WEED SPECIES	SCIENTIFIC NAME	M/	W MUMIXA	EED (HEIG	HT/LENG	TH)
		3"	6"	12"	18"	18"+
Spurge	Euphorbia spp.		0.8	1.2		1.6
Stinkgrass	Eragrostis cilianensis	0.6-1.0	0.8-1.0		]	
Sunflower, common	Helianthus annuus		0.8-1.0	1.0-1.2	1.2-1.6	2.4
Thistie, Russian	Salsola iberica	0.8-1.0	1.2-1.6	1.6-2.4		
Velvetleaf '	Abutilon theophrasti	0.8-1.2	1.2-1.6	1.6-2.4	2.0-3.2	
Virginia copperleaf	Acalypha virginica	1.6	2.4			
Waterhemp	Amaranthus spp.	1.2-1.6	1.2-1.6	1.6-2.0	2.4	i
Wheat	Triticum aestivum		0.6-1.2	0.6-1.6	0.8-2.0	1.2-2.4
Witchgrass	Panicum capillare			0.8		
Woolly cupgrass	Eriochioa villosa	0.8-1.2	0.8-1.6	1.2-1.6		<u> </u>

In no-till systems, use 1 pint/A.
 Maximum runner length.
 Control will be reduced at the button stage.
 When the predominant weed species include Carolina geranium, cutleaf eveningprimrose, fescue, hemp sesbania, henbit, morningglory, prickly sida, and vetch that are less than 6 inches tall, GRAMOXONE EXTRA should be considered as an alternative.
 Will not control glyphosate-tolerant volunteer corn.
 Plant diameter.
 Multiple applications may be required.

# TABLE 2 WESTERN REGION ANNUAL WEED CONTROL - TOUCHDOWN 5 RATES

Use the higher end of the rate range when stressful growing conditions or dense plant populations exist.

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE					
		MAXIMUM WEED (HEIGHT/LENGTH)					
		3"	6"	12"	18"		
Barley	Hordeum vulgare		0.6-1.2	0.6-2.0	0.6-2.4		
Barnyardgrass	Echinochloa crus- galli		0.6-1.6				
Bluegrass, annual	Poa annua		0.6-1.6				
Bluegrass, bulbous	Poa bulbosa		0.8-2.0				
Brome, downy	Bromus tectorum		0.6-1.6				
Buttercup	Ranunculus spp.			0.8-2.0			
Canarygrass	Phalaris canariensis		0.8-2.0				
Cheat	Bromus secalinus		0.8-2.0				
Chickweed, common	Stellaria media		0.8-2.0				
Chickweed, mouseear	Cerastium vulgatum		0.8-2.0				
Cocklebur, common	Xanthium strumarium			0.8-2.0			
Corn <sup>2</sup>	Zea mays		0.8-2.0				
Crabgrass	Digitaria-spp.			0.8-2.0			
Dwarfdandelion, Virginia	Krigia virginica			0.8-2.0			
Fall panicum	Panicum dichotomiflorum			0.8-2.0			
Falseflax, smallseed	Camelina microcarpa			0.8-2.0			
Fiddleneck	Amsinckia spp.		0.8-2.0				
Filaree	Erodium spp.			2.4-6.4			
Fleabane, hairy	Conyza bonariensis		0.8-2.0				
Foxtail	Setaria spp.		0.4-1.2	0.4-2			
Goatgrass, jointed	Aegilops cylindrica	<u> </u>	0.8-2.0				
Goosefoot, nettleleaf	Chenopodium murale		0.8-2.0				
Groundcherry	Physalis spp.		1.6-2.4				
Groundsel, common	Senecio vulgaris		0.8-2.0	i	******		
Henbit	Lamium amplexicaule		0.8-2.0				
Horseweed/Marestail	Conyza canadensis		0.8-2.0				
Johnsongrass, seedling	Sorghum halepense			0.8-2.0			
Junglerice	Echinochloa colonum		0.8-2.0				
Kochia 3	Kochia scoparia	0.8-1.2	1.2-1.6				
Lambsquarters, common	Chenopodium album		0.8-2.0		<u> </u>		
Morningglory 4, 5	Ipomoea spp.	0.6-2.0					
Mustard, blue	Chorispora tenella	<b></b>	0.6-1.6	:	h		
Mustard, tansy	Descurainia pinnata	k	0.6-1.6	<del>                                     </del>			

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE				
				D (HEIGHT/L		
		3"	6"	12"	18"	
Mustard, tumble	Sisymbrium altissimum	<u> </u>	0.6-1.6			
Mustard, wild	Sinapis arvensis		0.6-1.6			
Nightshade	Solanum spp.		1.6-2.4			
Oats	Avena sativa		0.6-1.2	0.6-2.0	0.6-2.4	
Oats, wild	Avena fatua			0.8-2.0		
Panicum, Texas	Panicum texanum	T		0.8-2.0		
Pennycress, field	Thiaspi arvense		0.8-2.0			
Pigweed	Amaranthus spp.			0.8-2.0		
Puncturevine	Tribulus terrestris	0.8-1.6	1.2-2.4			
Pusley, Florida	Richardia scabra			1.6-3.2		
Rabbitfootgrass	Polypogon monspeliensis		0.8-2.0			
Rocket, London	Sisymbrium Irio		0.8-2.0			
Rockpurslane, Redmaids	Calandrinia caulescens		0.8-2.0			
Rye	Secale cereale		0.6-1.2	0.8-1.6	1.2-2.0	
Ryegrass, Italian/annual	Lolium multiflorum		0.8-2.0			
Sandbur, field	Cenchrus incertus			0.6-1.6		
Shattercane	Sorghum bicolor	1		0.6-1.6		
Shepherdspurse	Capsella bursa- pastoris		0.8-2.0			
Sowthistle, annual	Sonchus oleraceus		0.8-2.0			
Sprangletop	Leptochloa spp.		1.6-2.4			
Spurge	Euphorbia spp.		0.8-2.0			
Spurge, prostrate	Euphorbia supina		1.6-2.4			
Stinkgrass	Eragrostis cilianensis			0.6-1.6	400	
Sunflower, common	Helianthus annuus		0.8-1.2	1.2-1.6		
Waterhemp	Amaranthus spp.	1.2-1.6	1.2-1.6	1.6-2.0	2.4	
Wheat	Triticum aestivum		0.6-1.2	0.6-2.0	0.6-2.4	
Witchgrass	Panicum capillare			0.8-2.0		

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<sup>&</sup>lt;sup>1</sup> In no-till systems, use 0.8-1.6 pints/A.
<sup>2</sup> Will not control glyphosate-tolerant volunteer com.
<sup>3</sup> Do not apply in the button stage.
<sup>4</sup> Multiple applications may be required.

<sup>&</sup>lt;sup>5</sup>When the predominate weed species include morningglory less than six inches tall, GRAMOXONE EXTRA should be considered as an alternative.

TABLE 3
ANNUAL WEED CONTROL - TOUCHDOWN 5 RATES IN A TANK MIX
WITH 0.25 LBS AI/A OF DICAMBA OR 0.5 LBS AI/A OF 2,4-D

WEED SPECIES	SCIENTIFIC NAME	MAXIMUM HEIGHT/LENGTH	TOUCHDOWN 5 PINTS PER ACRE
Lettuce, prickly Momingglory Ragweed, common Ragweed, glant Smartweed, Pennsylvania Velvetleaf	Lactuca serriola Ipomoea spp. Ambrosia artemisiifolia Ambrosia trifida Polygonum pensylvanicum Abutilon theophrasti	6"	0.8
Cocklebur, common Fleabane, rough Horseweed/Marestail Kochia Lambsquarters, common Sunflower, common Thistle, Russian	Xanthium strumarium Erigeron strigosus Conyza canadensis Kochia scoparia Chenopodium album Helianthus annuus Salsola iberica	12"	

Read and follow dicamba and 2,4-D labels

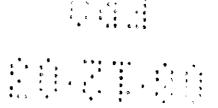


TABLE 4
PERENNIAL AND WOODY PLANT WEED CONTROL AND WEED MANAGEMENT
TOUCHDOWN 5 RATES USED ALONE OR IN TANK MIX WITH
0.25 LBS AI/A OF DICAMBA OR 0.5 LBS AI/A OF 2,4-D

WEED SPECIES	SCIENTIFIC NAMES	SPOT SPRAY % v/v	PINTS PER ACRE	TANK MIX WITH 2,4-D or DICAMBA	APPLICATION TIMING AND REMARKS
Alfalfa	Medicago sativa	1.5	2.4-4.8		At 6 to 8" stage or more after final cutting in fall. Deep till 7 days after treatment.
			0.8-1.6	Yes	At 6 to 8" stage or more for suppression.
Artichoke, Jerusalem 1	Helianthus tuberosus	1.5	4.8-6.4		At or after flowering.
Balsamapple	Momordica charantia	1.5			For partial control only, apply at or beyond bloom
Bahiagrass	Paspalum notatum	1.5	4.8-6.4		Early seedhead stage.
Barley, foxtail	Hordeum jubatum	1.5	1.6-3.2		4-6" stage.
Bermudagrass	Cynodon dactylon	1.5	3.2-6.4		Seedheads present, may require retreatment.
Bindweed, field	Convolvulus arvensis	1.5	3.2-6.4		At or after flowering, requires 2 applications.
		<u> </u>	0.8-1.6	Yes	At 8-12" stage or more fo suppression.
			1.6	Yes	At or after flowering for control, multiple applications may be required.
			1.6-6.4		In California: 12" or greater runner length. Use high end of rate range where dense populations exist. For suppression on land which is irrigated and tilled, use 1.6 pints/A.
Blackberry	Rubus spp.	1.0	4.8-6.4		Apply after full leaf expansion. For best results, apply late summer or fall but before a killing frost.
Bluegrass, Kentucky	Poa pratensis	1.5	3.2-4.8		Boot to early seedhead stage.
Brackenfern	Pteridium aquilinum	1.25	4.8-6.4		Fronds fully expanded and at least 18" long.
Bromegrass, smooth	Bromus inermis	1.5	1.6-3.2	1	Boot to early seedhead.
- 			0.8		For suppression.
Canarygrass, reed	Phalaris arundinacea	1.5	3.2-4.8		
Cattail	Typha sp.	1.5	4.8-6.4		Early head to early bud.
Clover, red Clover, white	Trifolium pratense Trifolium repens	1.5	4.8-6.4		Early head to early bud.  May require retreatment.
			0.8-1.6	Yes	At 4 to 10" stage for suppression.

WEED SPECIES	SCIENTIFIC NAMES	SPOT SPRAY % v/v	PINTS PER ACRE	TANK MIX WITH 2,4-D or DICAMBA	APPLICATION TIMING AND REMARKS
Cogongrass 1	Imperata cylindrica	1.5	4.8-6.4		Late summer/fall greater than 18" in height. May
					require retreatment.
Dandelion	Taraxacum officinale	1.5	2.4-4.8		Early bud.
			0.8	Yes	Early bud.
Dayflower T	Commelina spp.	1.5	4.8-6.4		Less than 4" in height.
Dock, curly	Rumex crispus	1.5	3.2-4.8		Early bud.
·	<u> </u>		0.8-1.6	Yes	Early bud.
Dogbane, hemp	Apocynum	1.5	3.2-6.4		Late bud to flower. May
	cannabinum				require retreatment.
			0.8-3.2	Yes	Actively growing at 6-12"
		f			stage for suppression.
			1.6	Yes	Actively growing, late bud
					to flower.
Dogfennel	Eupatorium	1.5	3.2-4.8	1	Actively growing, less
	capillifolium				than 12" in height.
Fescue <sup>2</sup>	Festuca spp.	1.5	4.8-6.4		Boot to early seedhead.
Fescue, tall	Festuca arundinacea	1.5	1.6-4.8		For fall application on 8 to
		ļ			12" plants, use 1.6-2.4
					pints/A. Use 4.8 pints/A
					on CRP sodded stands at
				<u> </u>	boot or later.
Goatweed	Scoparia dulcis	2.0	4.8-6.4		Less than 7" stage.
Guineagrass	Panicum maximum	1.0	4.8		• 7-10 leaf stage.
Horsenettle	Solanum carolinense	1.5	3.2-6.4		Late bud to flower.
			1.6-3.2	Yes	Late bud to flower.
Johnsongrass	Sorghum halepense	1.0	1.6-4.8		Apply at boot to head stage and in the fall prior to frost. Use 1.6-3.2 pints/A for annual tillage systems. Use 3.2-4.8 pints/A on no-till areas. Allow 3-7 days before tillage.
			0.8-1.6		For burndown, apply when plants are 10-12" stage and allow 3 days before tillage.
Lantana, largeleaf	Lantana camara	1.0			For partial control, apply at or beyond bloom stage.
Milkweed, common	Asclepias syriaca	1.5	3.2-4.8		Late bud to early flower. May require retreatment.
			1.6	Yes	Late bud to early flower.
		ļ	0.8-1.6	Yes	Suppression.
Milkweed, honeyvine	Ampelamus albidus	1.5	3.2-4.8	Yes	Late bud to early flower. May réquire retreatment.
Muhly, wirestem	Muhlenbergia frondosa	1.5	1.6-3.2		6-3" actively growing. Use kigh and of rate range in non-tillage areas.
Multein, common	Verbascum thapsus	1.5	3.2-6.4		Early bud to head.

		SPOT SPRAY %	PINTS PER	TANK MIX WITH 2,4-D or	APPLICATION TIMING
WEED SPECIES	SCIENTIFIC NAMES	v/v	ACRE	DICAMBA	AND REMARKS
Nightshade, silverleaf	Solanum eleagnifolium	1.5	1.6-3.2		Apply when 60% of plants have berries. Apply fall treatments before a killing frost.
Nutsedge, purple Nutsedge, yellow	Cyperus rotundus Cyperus esculentus	1.5	1.6-4.8		Treat when most plants are in flower stage. Repeat applications may be required for dense populations of nutsedge and subsequent germination of dormant nut- lets. Allow 5" of regrowth before retreatment. Use 0.8-1.6 pints/A for suppression. A second application will be required on recovered plants with 5" of new growth.
Orchardgrass	Dactylis glomerata	1.5	2.4-3.2		Apply 3.2 pints/A on plants at early boot to seedhead stage. For spring applications, use 3.2 pints/A and allow a minimum height of 10-12". Fall applications may be made on actively growing plants at the boot to early seedhead stage at 2.4-3.2 pints/A.
Pampasgrass	Erianthus ravennae	1.5			For partial control only; apply at or beyond boot stage.
Paragrass	Brachiaria mutica	1.5	2.4-3.2		Early seedhead stage.
Phaseybean 1	Phaseolus lathyroides	1.5	4.8-6.4		Less than 8" tall.
Poison ivy Poison oak 1	Toxicodendron radicans Toxicodendron toxicarium	1.5	6.4		Apply after full leaf expansion. For best results, apply late summer or fall but before leaves lose green color.
Quackgrass	Agropyron repens	1.5	1.6-3.2		Apply at 6-10" stage in annual cropping systems followed by tillage. Use the higher rate on dense established stands. Allow 3 days before tillage.
			3.2-4.8		Apply as 6-10" stage if tillage is not performed following application.

WEED SPECIES	SCIENTIFIC NAMES	SPOT SPRAY % v/v	PINTS PER ACRE	TANK MIX WITH 2,4-D or DICAMBA	APPLICATION TIMING AND REMARKS
Redvine 1	Brunnichia ovata	1.5	0.8-2.4		Greater than 18" tall in September/October; retreatment will be required at rates less than 1.6 pint/A. Allow 12" of regrowth before retreatment.
Ryegrass, perennial	Lolium perenne	1.0	1.6-4.8		Boot to head or prior to frost; use higher end of rate range if no tillage will be performed following application.
Smallflowered Alexandergrass	Brachiaria subquadripara	1.5	3.2-4.8		Less than 4" in height, actively growing.
Smartweed, swamp	Polygonum coccineum	1.5	2.4-6.4		Early bud, 12" stage.
			0.8	Yes	Early bud, 12" stage.
Spurge, leafy	Euphorbia esula	1.5	3.2		Greater than 12" tall in late summer or fall.
			0.8	Yes	Greater than 12" tall in late summer.
Sumac, dwarf <sup>1</sup> Sumac, poison <sup>1</sup> Sumac, smooth <sup>1</sup>	Rhus copallina Toxicodendron vernix Rhus glabra	1.5	3.2-6.4		Apply after full leaf expansion. For best results, apply late summer or fall but before leaves lose green color.
Sweet potato, wild	Ipomea pandurata	1.5			For partial control only, apply at or beyond flowering stage.
Switchgrass	Panicum virgatum	1.5	2.4-3.2		Boot to head stage.
Thistle, Canada	Cirsium arvense	1.5	3.2-4.8		Apply at bud to early flower stage. For fall applications or following mowing, allow a minimum of 6-8" rosette development.
Timothy	Phleum pratense	1.5	3.2-4.8		Boot to head; wait 3 days before tillage.
Torpedograss <sup>1</sup>	Panicum repens	1.5	6.4		At or beyond seedhead for suppression.
Trumpetcreeper <sup>1</sup>	Campsis radicans	1.5	3.2-4.8		Late September/October applications on actively growing plants, retreatment may be required.
Vaseygrass	Paspalum urvillei	1.5	4.8-6.4	٠,	Apply at early head stage
Vetch <sup>2</sup>	Vicia spp.	1.5	3.2-4.8	• • •	Boot to head.
Virginia creeper	Parthenocissus quinquefolia	1.5	6.4	*.*	'रिप्री leas expansion.
Wheatgrass, Western	Agropyron smithii	1.5	3.2-4.8		Boot to head.

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<sup>&</sup>lt;sup>1</sup>Partial control.

<sup>&</sup>lt;sup>2</sup>When the predominant weed species include Carolina geranium, cutleaf eveningprimrose, fescue, hemp sesbania, henbit, morningglory, prickly sida, and vetch that are less than 6 inches tall, GRAMOXONE EXTRA should be considered as an alternative.

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

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SCP XXX

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## BASE LABEL Touchdown® 5 Herbicide

#### NONSELECTIVE FOLIAR SYSTEMIC HERBICIDE FOR WEED CONTROL

Active Ingredient:

 Sulfosate
 48.6%

 Inert Ingredients:
 51.4%

 Total
 100.0%

Contains 5 pounds active ingredient per gallon.

#### **KEEP OUT OF REACH OF CHILDREN**

CAUTION

See directions for use in attached booklet.

#### **AGRICULTURAL USE REQUIREMENTS**

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

EPA Reg. No.: 100-1108

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SCP 100-XXXX

Net Weight / U.S. Standard Measure

FIRST AID	
if on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
Have the product doctor, or going for	container or label with you when calling a poison control center or reatment.
Ear 24 Have	HOT LINE NUMBER  Medical Emergency Assistance (Human or Animal) or Chemical

For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372

#### **PRECAUTIONARY STATEMENTS**

#### **Hazards to Humans And Domestic Animals**

#### **CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

#### **Personal Protective Equipment**

Applicators and other handlers must wear: long sleeved shirt and long pants, socks and shoes, and waterproof gloves.

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.

#### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **Environmental Hazards**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal 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.

**DRIFT:** Caution must be taken when applying Touchdown 5 to avoid drift or contact with nontarget plant species. Such contact may result in plant injury.

TOUCHDOWN 5 AMEND 0803 FIRSTAID CLEAN - pd - 08/05/03 000100-01108.20030808.TOUCHDOWN-5-AMEND-0803-FIRSTAID.pdf

