

100-1212

3/15/2011

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

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

MAR 15 2011

Pat Dinnen  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300

Subject: Notification per PR Notice 98-10 (remove expired patent number)  
Applications Dated March 3, 2011

Dear Ms. Dinnen:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the products listed below. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The labels submitted with the applications have been date-stamped "Notification" and will be placed in our records.


<u>EPA Reg. Number</u>	<u>Product Name</u>
100-1121	Touchdown Pro Herbicide
100-1157	Touchdown CF Herbicide
100-1169	Touchdown Total
100-1182	Touchdown HiTech Herbicide
✓100-1212	Touchdown CT Herbicide
100-1293	Traxion GT
100-1355	Departure Herbicide

If you have any questions regarding this letter, please contact Mindy Ondish at (703) 605-0723 or at [ondish.mindy@epa.gov](mailto:ondish.mindy@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Kable Bo Davis".

Kable Bo Davis  
Product Manager 25  
Herbicide Branch  
Registration Division (7504P)

 <b>United States</b> <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number <hr/> <b>NOTIFICATION</b>

**Application for Pesticide - Section I**

1. Company/Product Number 100-1212	2. EPA Product Manager Mr. Kable Davis	3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Touchdown CT Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, LLC P. O. Box 18300 Greensboro, NC 27419  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> 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"/> Resubmission in response to Agency letter dated _____  <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application.  <input type="checkbox"/> Other - Explain below.
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**NOTIFICATION****MAR 15 2011****Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)


This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Remove expired patent numbers.

**Section - III**

<b>1. Material This Product Will Be Packaged In:</b>				<b>2. Type of Container</b>	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____	
*Certification must be submitted		If "Yes"      No. per Unit Packaging wgt.      Container	If "Yes"      No. per Unit Packaging wgt.      container		
3. Location of Net Contents Information  <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 250 gallons and bulk		5. Location of Label Directions <input checked="" 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 checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

**Section - IV**

<b>1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)</b>			
Name Pat Dinnen	Title Staff Label Group Leader	Telephone No. (Include Area Code) 336-332-2494	
<b>Certification</b>			
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  	3. Title Staff Label Group Leader		
4. Typed Name Pat Dinnen	5. Date March 3, 2011		

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September 10, 2010

**Attention: Mr. James A. Tompkins, PM 25**

cc: Jerry Wells

A collection of 15 small, stylized line drawings of various insects, including beetles, flies, and bees, arranged in a grid-like fashion. The drawings are simple and illustrative, showing the basic shapes and features of each insect.

Front Cover  
(Booklet)

## NOTIFICATION

**MAR 15 2011**

## Touchdown CT Herbicide

GROUP	9	HERBICIDE
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## Nonselective Foliar Systemic Herbicide for Weed Control

**Active Ingredient:**

\*Glyphosate, N-(phosphonomethyl) glycine ..... 36.5%

Other Ingredients:	63.5%
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Total:	100.0%
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\*Contains 4.17 pounds of glyphosate acid in each gallon, in the potassium salt form.

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

**See additional precautionary statements and directions for use inside booklet.**

EPA Reg. No. 100-1212

EPA Est.

SCP 1212A L1A 0809

\_\_\_\_ gallons  
Net Contents

A collection of 20 small, stylized line drawings of various insects, including beetles, flies, and bees, arranged in a grid-like pattern. The drawings are simple and cartoonish, with some insects shown in profile and others from a top-down or side view. They are arranged in a roughly rectangular grid, with some insects appearing in pairs or small groups.

<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <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>
<b>If inhaled</b>	<ul style="list-style-type: none"> <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>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminate 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>
<b>If swallowed</b>	<ul style="list-style-type: none"> <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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### CAUTION

Causes moderate eye irritation. Harmful if inhaled. Avoid breathing spray mist. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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.

**Applicators and other handlers must wear:**

- Long sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Socks and shoes

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

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

**User Safety Recommendations****Users should:**

- Wash hands 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 when cleaning equipment or disposing of equipment wash waters.

**Physical and Chemical Hazards**

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), aluminum, galvanized steel containers or sprayer tanks. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas which may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

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

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

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 Syngenta Crop Protection, LLC 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 Limitation of Warranty and 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
- Chemical-resistant gloves Category A, such as butyl rubber, or natural rubber, or neoprene rubber
- Shoes plus socks

### NON-AGRICULTURAL 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.



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**GENERAL INFORMATION**

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Touchdown CT is a nonselective foliar systemic herbicide for control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds and unwanted woody brush and trees.

Touchdown CT is formulated as a liquid concentrate that contains 4.17 lbs. acid equivalent per gallon, in the potassium salt form.

For use in: Colorado, Idaho, Kansas, Minnesota\* Montana, Nebraska, Nevada, New Mexico\*, North Dakota, Oklahoma\*, Oregon, South Dakota, Texas\*, Utah, Washington and Wyoming.

\*County Restrictions – This product is authorized for use in specified counties in the following states: Kansas, Minnesota, Nebraska, New Mexico, Oklahoma, Texas.

Minnesota: Becker, Clay, Douglas, Kittson, Lake of the Woods, Mahanomen, Marshall, Norman, Otter Tail, Pennington, Polk, Red Lake, Roseau, Wilkin

New Mexico: Colfax, Rio Arriba, San Juan, Taos, Union

Oklahoma: Alfalfa, Beaver, Blaine, Canadian, Cimarron, Custer, Dewey, Ellis, Garfield, Grant, Harper, Kay, Kingfisher, Logan, Major, Noble, Pawnee, Payne, Roger Mills, Texas, Woods, Woodward

Texas: Dallam, Hansford, Hartley, Hemphill, Hutchinson, Lipscomb, Moore, Ochiltree, Roberts, Sherman

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

Touchdown CT may be used in the following agricultural and nonagricultural areas:

**AGRICULTURAL USE SITES AND CROPS**

- Alfalfa, Clover, and Other Legumes
- Berries, Fruits, Nuts, and Vines
- Canola
- Conservation Compliance/Conservation Reserve Program (CRP)
- Corn
- Cotton
- Fallowland and Postharvest
- Grasses and Grass Seed Production
- Herbs

- Pastures
- Small Grains
- Sorghum
- Soybeans
- Sunflower
- Vegetables

## **NONAGRICULTURAL USE AREAS**

- Airports
- Apartment Complexes
- Christmas Tree Farms
- Chemical Mowing
- Farmsteads
- Fencerows
- Forests
- Golf Courses
- Habitat Restoration and Management Areas
- Highways
- Industrial Sites
- Lumber Yards
- Manufacturing Sites
- Natural Areas
- Office Complexes
- Ornamental Nurseries
- Parks
- Parking Areas
- Petroleum Tank Farms and Pumping Installations
- Pipeline, Power, Telephone and Utility Rights-of-Way
- Railroads
- Recreational Areas
- Residential Areas
- Roadsides
- School Grounds
- Storage Areas
- Utility Substations
- Warehouse Areas

## USE PRECAUTIONS AND RESTRICTIONS

- Do not apply this product through any type of irrigation system.
- Do not apply this product by direct application (ground or air) to any body of water.
- 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.
- The **MAXIMUM USE RATES** indicated for Touchdown CT have been determined based upon the concentration of glyphosate acid (expressed as acid equivalents) contained in this product. The actual maximum application rates stated apply to the total amount of glyphosate acid equivalents applied to a given site in any year either from the application of this product alone or in combination with other glyphosate-containing products, applied either as mixtures with other products or separately. Application rates must be calculated to ensure that the use of this and other glyphosate-containing products do not exceed the maximum use rate as specified below unless otherwise specified in the specific use directions.
- In agricultural use sites and crop areas, do not exceed a total of 5.8 qt Touchdown CT/A, equivalent to 6 lb glyphosate acid equivalents per acre per year.
- In nonagricultural use areas, do not exceed a total of 7.6 qt Touchdown CT/A, equivalent to 8 lb glyphosate acid equivalents per acre per year.
- Do not exceed 0.7 qt/A by air unless otherwise specified on this label.
- For broadcast postemergence treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.
- Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants, or other areas on which treatment was not intended. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. Avoid applying at excessive speed or pressure.
- Touchdown CT requires actively growing green plant tissue to function. Application to drought-stressed weeds or weeds with little green foliage (i.e. mowed, cut, or haled on weeds), weeds covered with dust, or weeds damaged by insects or diseases may result in reduced weed control.
- Touchdown CT does not provide soil 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.
- Touchdown CT is not volatile and cannot move as a vapor after application onto nontarget vegetation.
- It is recommended that the spray system be thoroughly cleaned with water and a commercial tank cleaner after each use.
- Spray solutions of Touchdown CT should be mixed, stored, and applied using only plastic, plastic-lined steel, stainless steel, or fiberglass containers. Concentrate should not be stored in galvanized steel, carbon steel, aluminum, or unlined steel containers.
- There are no rotational crop restrictions following application of this product.
- Severe damage or destruction may be caused by contact of Touchdown CT with any vegetation (including leaves, green stems, exposed non-woody roots, or fruit) of crops, trees, and other desirable plants of which treatment is not intended.

## GLYPHOSATE-RESISTANT WEED MANAGEMENT

Some naturally occurring weed biotypes resistant to glyphosate may exist through normal genetic variability in any weed population. The repeated use of herbicides with the same mode of action is known to lead under certain conditions to a selection of resistant weeds. Certain agronomic practices reduce the likelihood that resistant weed populations will develop and integrated strategies are known to manage such problem weeds.

Glyphosate is the active ingredient in the herbicide Touchdown CT. The primary mode of action of glyphosate involves inactivation of the target enzyme 5-enolpyruvylshikimate-3-phosphate synthase (EPSPS). This enzyme is involved in the synthesis of several essential amino acids that are the building blocks for proteins needed for plant growth and development. In susceptible weeds, glyphosate binds tightly to EPSPS rendering the enzyme inactive. With the inactivation of EPSPS, the plant is unable to produce certain essential amino acids resulting in plant death. Initial studies on the mechanistic basis of resistance to glyphosate in various weed species have to date revealed EPSPS target site resistance and involvement of differences in translocation as important. Other mechanisms by which plants can become resistant to herbicides include differences in uptake, metabolism and sequestration. Within the USA specific biotypes of a number of species, including, horseweed/marestail (*Conyza*

*canadensis*), hairy fleabane (*Conyza bonariensis*), rigid ryegrass, (*Lolium rigidum*), Palmer amaranth (*Amaranthus palmeri*), common waterhemp (*Amaranthus rudis*), common ragweed (*Ambrosia artemisiifolia*), giant ragweed (*Ambrosia trifida*) and johnsongrass (*Sorghum halepense*), have become resistant to glyphosate. The first incident reported to the Herbicide Resistance Action Committee (HRAC) of glyphosate resistance was in 1998 on rigid ryegrass.

Following is a list of Best Weed Management practices to be considered in glyphosate-based programs.

Diversify glyphosate-dependent weed control programs with alternative herbicides or cultural practices.

- Use full label rates of glyphosate and tank mix partners. Minimize weed escapes.
- Monitor treated weed populations for any loss of field efficacy.
- Contact your local extension specialist, certified crop advisor, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Since the occurrence of resistant weeds is difficult to detect prior to use, Syngenta Crop Protection accepts no liability for any losses that may result from the failure of Touchdown CT to control resistant weeds.

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## APPLICATION AND MIXING DIRECTIONS - AGRICULTURAL USE SITES AND CROPS

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### TIMING

Touchdown CT 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** sections for specific application timing.

When annual weeds have been mowed or grazed, wait for 3 to 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.

Visible effects on annual weeds occur within 2 to 4 days after application; effects on perennial weeds may take 7 days or longer. Extremely cool or cloudy weather following treatment may slow activity.

### RATES

Follow specified rates for Touchdown CT listed in the **WEEDS CONTROLLED**, **WOODY BRUSH AND TREES CONTROLLED** sections. Use the higher label rates

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when weeds are dense or large. Also, use higher application volumes and pressures when weed vegetation is dense.

## **SPRAY ADDITIVES**

**Ammonium Sulfate (AMS)** – Control of annual and perennial weeds with Touchdown CT may be improved by adding dry ammonium sulfate at 1-2% by weight or 8.5-17 lb/100 gal of water. In the High Plains where water sources contain Ca, Mg, Mn levels exceeding 150 ppm, use a minimum of 8.5 lb AMS per 100 gallons of spray mixture. Liquid formulations of AMS may be used at an equivalent rate. Do not reduce use rates of Touchdown CT when using ammonium sulfate.

**Drift Control Agents** – Drift control agents may be used with Touchdown CT.

When an adjuvant is to be used with this product, the use of an adjuvant that meets the requirements of the Chemical Producers and Distributors Association (CDPA) adjuvant certification program is recommended.

## **TANK MIXES WITH RESIDUAL HERBICIDES**

Refer to crop sections for recommended tank mixes. Tank mixes of Touchdown CT 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  $\frac{1}{2}$  full with clean water.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add AMS (if used).
4. Add dry formulations (WP, DF, etc.) to tank.
5. Add liquid formulations (SC, EC, L, etc.) to tank.
6. Add Touchdown CT.
7. Add nonionic surfactant/wetting agent (if used).
8. Fill remainder of spray tank.

## **APPLICATION EQUIPMENT AND TECHNIQUES**

- Avoid drift. Applications should not be made 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 CT. Compatibility with drift control additives may vary. It is recommended that the combination be tested on a small scale such as a jar test. Read and follow the manufacturer's directions for use. A reduction in weed control may occur when drift control agents are used.
- All 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 CT. 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.

Do not make direct applications to any body of water.

**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 CT 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

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Volume Diameter (VD) {0.9} > 200 microns

Prolonged exposure of Touchdown CT to uncoated steel surfaces may result in corrosion and possible failure of the part. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of Touchdown CT accumulated during spraying or from spills. Landing gear are most susceptible.

Do not make direct applications to any body of water.

### Shielded/Hooded Application

Use shielded/hooded sprayers to control weeds between rows while protecting the crop from the herbicide. Keep shields/hoods as close to the ground as possible and avoid ground speed in excess of 5 mph. Use appropriate nozzles, spacing, and pressure to achieve coverage without allowing spray to touch or drift onto the crop. Maintain equipment in good operating condition to prevent leakage or dripping onto the crop. Refer to state extension service recommendations and equipment manufacturers' guidelines for more information on proper operation of shielded/hooded sprayers.

### 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 3 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 CT/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 CT Herbicide Spot Spray Dilution Table**

Solution Strength	To Make This Volume			
	1 gallon	10 gallons	25 gallons	100 gallons
0.4%	0.5 fl oz	5 fl oz	12 fl oz	3 pt
0.7%	0.9 fl oz	9 fl oz	1.4 pt	5.6 pt
0.9%	1.2 fl oz	12 fl oz	1.9 pt	3.8 qt
1.1%	1.4 fl oz	14 fl oz	2.2 pt	4.4 qt
1.5%	1.9 fl oz	1.2 pt.	3 pt	1.5 gal
2.2%	2.8 fl oz	1.8 pt.	4.4 pt	2.2 gal
5.0%	6.4 fl oz	4.0 pt	10.0 pt	5.0 gal



## WIPER APPLICATION

Touchdown CT may be applied using a wiper or "wick" applicator (e.g. rope, sponge, or porous plastic applicators) for selective control or suppression of annual and perennial weeds which become taller than the crop or desirable vegetation. Mix 3 qt of Touchdown CT in 2 gallons of water unless directed otherwise in this label (See **Use Precautions for Berries, Fruits, Nuts, and Vines**). 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.

## Injection Systems

Touchdown CT may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix Touchdown CT with the undiluted concentrate of other products when using injection systems unless specifically recommended.

## CDA Equipment

For control of annual weeds with hand-held equipment, apply a 20% solution of Touchdown CT at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For perennial weeds, use a 20 to 30% solution of Touchdown CT at a flow rate of 2 ounces per minute and a walking speed of 0.75 mph (2 to 3 quarts per acre). For vehicle-mounted equipment, apply in 3 to 15 gallons of water per acre. Refer to the **WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED** sections for application rates and timing.

Precautions should be taken to avoid contact with crops or desirable vegetation.

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## CROP USE DIRECTIONS – AGRICULTURAL USE SITES AND CROPS

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

### ALFALFA, CLOVER, AND OTHER LEGUMES

Touchdown CT may be used on the legume crops listed below:

Alfalfa	Sainfoin
Clover	Trefoil
Kudzu	Velvetbean
Lespedeza	Vetch
Lupine	

**Method of Application:** Before, during, or after planting but before crop emergence;

renovation; spot spray; wiper/wick; preharvest; and postharvest.

### **Preplant/Preemergence, Dormant, or Renovation**

Deep tillage following treatment of weeds with Touchdown CT or a sequential application of Touchdown CT may be required to control well-established perennials.

### **Preharvest**

Use this treatment to eliminate or destroy declining crop stands. In alfalfa, up to 48 fl oz per acre of Touchdown CT may be applied as a broadcast spray with ground or aerial equipment at least 36 hours before harvest. For other legumes listed, apply up to 34 fl oz per acre at least three days before harvest. Applications may be made any time of the year when the crop is in the bud to flower stage of growth. Deep tillage following preharvest treatment or a postharvest application of Touchdown CT may be required to provide control of well established perennials.

Follow directions listed in the **APPLICATION DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED** section for rates and timing.

### **Use Precautions and Restrictions for Alfalfa, Clover, and Other Legumes**

- Spot and wiper/wick application must be made at least 14 days before grazing or harvest of forage and hay.
- Preharvest and renovation applications can be made with no more than 1.5 pt/A at least 36 hours before grazing or harvest of forage or hay.
- Do not apply a preharvest treatment on alfalfa grown for seed as a reduction in germination or vigor may occur.

### **Tank Mixtures for Preplant/Preemergence, Dormant, or Renovation Use for Alfalfa, Clover, and Other Legumes**

Touchdown CT 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 for application rates and timing. Apply Touchdown CT at 0.7 to 5.8 pt/A in these tank mixes for control or suppression of annual and perennial weeds. For control or suppression of dense populations of weeds greater than 12 inches in height or weeds under stress, consider use rates at the higher end of the rate range.

Buctril®  
Dual Magnum  
Eptam®  
Karmex®  
Kerb®

Sencor®  
Prowl®  
Pursuit®  
Trifluralin  
Velpar®

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

### BERRIES, FRUITS, NUTS, AND VINES

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

Almond  
Apple  
Apricot  
Atemoya  
Avocado  
Banana  
Barbados cherry (Acerola)  
Beechnut  
Blackberry  
Blueberry  
Boysenberry  
Breadfruit  
Brazil nut  
Butternut  
Calamondin  
Canistel  
Carambola  
Cashew  
Cherimoya  
Cherry (sweet, sour, tart)  
Chestnut  
Chinquapin  
Chironja  
Citron (postdirected only)  
Citrus hybrids  
Cocoa bean  
Coconut  
Coffee  
Crabapple  
Cranberry  
Currant  
Date

Lemon  
Lime  
Loganberry  
Longan  
Loquat  
Lychee  
Macadamia  
Mandarin  
Mango  
Mangosteen  
Marmaladebox (genip)  
Mayhaw  
Nectarine  
Olallieberry  
Olive (postdirected only)  
Orange (all)  
Oriental pear  
Papaya  
Passion fruit  
Peach  
Pear  
Pecan  
Persimmon  
Pineapple  
Pistachio  
Plantain  
Plum  
Plumcot  
Pomegranate  
Prune (all)  
Pummelo  
Quince

Dewberry  
 Durian  
 Elderberry  
 Fig  
 Filbert (Hazelnut)  
 Gooseberry  
 Grapefruit  
 Grapes (all)  
 Guava  
 Hickory nut  
 Huckleberry  
 Jaboticaba  
 Jackfruit  
 Kiwi fruit  
 Kumquat

Rambutan  
 Raspberry (black, red)  
 Sapodilla  
 Sapote (black, mamey, white)  
 Satsuma mandarin  
 Soursop  
 Sugar apple  
 Tamarind  
 Tangelo  
 Tangerine  
 Tangor  
 Tea  
 Walnut (black, English)  
 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); post harvest (cranberry); and wiper/wick applicator equipment.

#### Use Directions

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 **USE PRECAUTIONS FOR BERRIES, FRUITS, NUTS, 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, WOODY BRUSH AND TREES CONTROLLED** section for application rates and timing.

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

#### Use Precautions and Restrictions for Berries, Fruits, Nuts, 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 **APRICOTS, NECTARINES, PEACHES, PLUMS, and PRUNES** grown in Colorado, Idaho, Kansas, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington, any application equipment listed for these crops may be used.

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- For **APRICOTS, NECTARINES, PEACHES, PLUMS, and PRUNES** grown in all other states not previously listed, use only wiper/wick application equipment.
- For all other crops in this section, allow a minimum of 3 days between application and transplanting.
- For **BLACKBERRY, BLUEBERRY, BOYSENBERRY, CRANBERRY, CURRANT, DEWBERRY, ELDERBERRY, GOOSEBERRY, HUCKLEBERRY, LOGANBERRY, OLALLIEBERRY, RASPBERRY, AND YOUNGBERRY**, mix 3 qt of Touchdown CT in 4 gallons of water for wiper/wick applications.
- Allow at least **17** days from the last application to harvest of **STONE FRUIT** or **OLIVES**. For olive groves, apply only as a directed spray.
- Allow at least **3** days from last application to harvest of **NUTS**.
- Allow at least **30** days from last application to harvest of **CRANBERRIES**.
- Allow at least **1** day from the last application to harvest of **BANANA, CITRUS, GUAVA, PAPAYA, PLANTAIN, or POME FRUIT (except MAYHAW)**.
- Allow at least **14** days from last application to harvest of **ACEROLA, ATEMOYA, AVOCADO, BREADFRUIT, CANISTEL, CARAMBOLA, CHERIMOYA, COCOA BEANS, COCONUTS, DATES, FIGS, GENIP, GRAPES, JABOTICABA, JACKFRUIT, LONGAN, LYCHEE, MANGO, MAYHAW, PASSION FRUIT, PERSIMMON, POMEGRANATE, SAPODILLA, SAPOTE, SMALL BERRIES, SOURSOP, SUGAR APPLE, TAMARIND, and TEA**.

#### **Post-Harvest Cranberry**

Application of Touchdown CT may be made following harvest of cranberries to control troublesome annual and perennial weeds. Do not apply directly to cranberry vines. Vines that are sprayed will be injured and may die. Apply Touchdown CT in a 0.4 to 0.7% solution if using hand-held equipment after the vines are dormant. Use properly calibrated precision application equipment; wiper wisk, spot sprayer which protects the cranberry plant from Touchdown CT spray. Do not treat more than 10% of the bog.

#### **Tank Mixtures with Residual Herbicides and 2,4-D for Berries, Fruits, Nuts, and Vines**

Touchdown CT 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 for application rates and timing. Apply Touchdown CT at 0.7 to 3.6 qt/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, specified rates, approved crops, and a list of weeds controlled.

### Tank Mixture with Goal Herbicide in Row Middles

Apply Touchdown CT at 12 to 24 fl oz/A in a tank mix with 3 to 12 oz of Goal 2XL herbicide for the control of annual weeds that are a maximum of 6 inches in height or diameter including annual sowthistle; crabgrass; common cheeseweed; common groundsel; common lambsquarters; common purslane (suppression); common ryegrass; filaree (suppression); hairy fleabane; horseweed/marestail; junglerice; London rocket; redroot pigweed; shepherdspurse; and stinging nettle. For control of common cheeseweed up to 3 inches in diameter, apply 12 to 24 fl oz/A of Touchdown CT with 3 to 12 oz/A of Goal.

Refer to the Goal label for precautionary statements, restrictions, and approved crops.

### Hard-to-Control Weed Instructions in Citrus (Texas Only)

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

Weed Species	Rate of Touchdown CT (Quarts per Acre)			
	0.7	1.4	2.2	3.6
Bermudagrass	B	B	PC	C
Guineagrass	B	C	C	C
	NR	B	C	C
Paragrass	B	C	C	C
Torpedograss	NR	S	PC	C

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

For goatweed, apply 1.4 to 2.2 qt of Touchdown CT per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use the 1.4 qt rate on plants less than 8 inches tall and 2.2 qt on plants greater than 8 inches tall. When plants are greater than 8 inches tall, the addition of Krovar™ I or Karmex™ may improve control. If using a tank mix, refer to individual product labels for precautionary statements, restrictions, rates, and a list of weeds controlled.

### **Perennial Grass Suppression (Chemical Mowing) of Orchard Floors**

For best results, mow to an even height and apply Touchdown CT 3 or 4 days later. Do not add AMS to the spray solution. Application must be made 1 to 3 weeks ahead of seedhead emergence.

### **Bahiagrass**

Touchdown CT 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. Apply Touchdown CT at 20 to 30 days after complete green-up or after mowing to 4 inches tall. When a single application is planned, use 3 to 6 fl oz of Touchdown CT per acre in 10 to 20 gallons of water. When a sequential application is planned, use 3 to 6 fl oz/A for the first application followed by another application of 1.5 to 4 fl oz/A 40 to 50 days later.

### **Bermudagrass**

#### **For Suppression Only:**

**East of the Rocky Mountains** – Apply 4 to 12 fl oz of Touchdown CT 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 2 to 6 fl oz/A if a lesser degree of suppression is desired. A sequential application can be used when regrowth occurs.

**West of the Rocky Mountains** – Apply 4 to 12 fl oz of Touchdown CT 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. A sequential application of 4 to 7 fl oz can be used when regrowth occurs.

**For Partial Control and Burndown:**

Touchdown CT can be used for burndown and partial control of bermudagrass at 1.4 to 2.9 pt in 3 to 20 gallons of water per acre. Use 1.4 pt east of the Rocky Mountains and 2.9 pt west of the Rocky Mountains.

Use this treatment only if reduction of the bermudagrass stand can be tolerated. Allow at least 14 to 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 3 to 6 fl oz of Touchdown CT in 10 to 20 gallons of water per acre. See **SPRAY ADDITIVES** section for rates.

For suppression of Kentucky bluegrass, use 2 to 4 fl oz of Touchdown CT.

**CANOLA**

**Method of Application:** Before, during, or after planting, but before crop emergence.

Follow directions listed in the **Application and Mixing Directions**, **Spray Additives**, and **Application Equipment and Techniques** sections. Refer to **Weeds Controlled** section for application rates and timing.

**Use Precautions and Restrictions for Canola**

- Control of weeds may also be improved by adding dry ammonium sulfate at 1-2% by weight or 8.5-17 lb/100 gal of water.
- Up to 3.0 pt/A of Touchdown CT may be applied per year as broadcast sprays with ground or aerial equipment.
- Avoid contact with canola foliage.

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

**Method of Application:** Rotating out of CRP, site preparation (sequential herbicide applications), dormant beneficial plant management, postemergence, and wiper/wick.

**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 3-4 inches of new growth before application. When perennial weeds have been mowed or grazed, allow regrowth to reach recommended stage (see **WEEDS CONTROLLED** section, Table 3, for rates and timing).

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

#### **Touchdown CT/Gramoxone Inteon Herbicide Sequential Program (Spring Application)**

<b>Weed Species</b>	<b>Program A</b>	<b>Program B</b>
Fescue Orchardgrass Ryegrass	Gramoxone Inteon at 2.6 to 4.4 pt/A followed 7-10 days later with Gramoxone Inteon at 3.0 to 4.0 pts./A	Touchdown CT at 1.4 to 3.0 pt/A followed 10-14 days later with Gramoxone Inteon at 3.0 to 4.0 pt/A

**Dormant Beneficial Plant Applications:** Apply 9 to 12 oz/A 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 CT may be tank mixed with other herbicides registered for this use such as atrazine, dicamba, and 2,4-D.

There are no rotational crop restrictions following application of Touchdown CT. Read and follow crop rotation label restrictions for all tank mix products.

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

**Method of Application:** Before, during, or after planting but before crop emergence, hooded sprayers, spot spray, preharvest (except for sweet corn), and postharvest.

Follow the directions listed in the **APPLICATION AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED** section for application rates and timing.

#### **Use Precautions and Restrictions for Corn**

- Spot application must be made prior to corn silking.
- For hooded sprayer applications, do not exceed 24 fl oz/A per application; nor 2.2 qt/A per year.
- Do not graze or feed corn forage or fodder following hooded sprayer applications.

- Preharvest application must be made at least 7 days before harvest.
- Apply no more than 48 fl oz/A by air; and 2.2 qt/A by ground preharvest.
- Following postharvest application allow at least 7 days between treatment and harvest or feeding of treated vegetation.
- Crop plants contacted by Touchdown CT will be injured or killed.

### Tank Mixtures for Corn

**For Control of Annual Weeds in a Residual Herbicide Tank Mix:** Refer to the **WEEDS CONTROLLED** section, Tables 1 and 2, for application rates and timing. Apply Touchdown CT at 0.7 to 4.3 pt/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 1.5 to 5.8 pt/A of Touchdown CT.

**For Control or Suppression of Perennial Weeds in a Residual Herbicide Tank Mix:** Refer to the **PERENNIAL WEEDS CONTROLLED** section, Table 3, 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 to 70 gallons per acre with 2,4-D, dicamba, or any residual herbicides on the following list. Use 1.5 to 3 pt/A of Touchdown CT when UAN is used as a carrier. For use with 2,4-D and dicamba on annual and perennial weeds, consult Tables 2 and 3. Reduced weed control may occur on certain weeds as a result of UAN foliar burn that can reduce uptake of Touchdown CT. Touchdown CT can be tank mixed with the following products:

Aim™	Dicamba	Linex®
Ambush®	Distinct™	Lorox®
Atrazine	Dual MAGNUM®	Lumax®
Axiom®	Dual II MAGNUM®	Marksman®
Balance®	Extrazine® II	Micro-Tech®
Basis®	Frontier®	Northstar
Bicep Lite II MAGNUM®	FulTime™	Prowl®
Bicep MAGNUM®	Guardsman®	Simazine
Bicep II MAGNUM®	Harness®	Spirit
Broadstrike®	Harness® Xtra	Surpass® EC
Bullet®	Hornet™	Surpass 100
Camix	Lariat®	Topnotch®
Clarity®	Lasso®	Warrior®
Degree™	Lexar	2,4-D
Degree Xtra™	Lightning™	

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

### **Hooded Sprayers**

Touchdown CT may be used through hooded sprayers that completely enclose the spray pattern for weed control between the rows. Adjust the hooded sprayer in raised seedbeds to ensure the front and rear flaps touch the ground to completely enclose the spray solution.

Crop injury may occur when the foliage of treated weeds comes in direct contact with the leaves of the crop. Do not apply Touchdown CT when the leaves of the crop are growing in direct contact with weeds to be treated.

### **Application Requirements**

- The spray hoods must be operated on the ground or skimming across the ground.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row.
- Maximum allowable application speed is 5 mph.
- Maximum allowable wind speed at application is 10 mph.
- Use low drift nozzles.

Gramoxone Inteon Herbicide may be considered for Hooded Sprayer applications in corn. Use Gramoxone Inteon at 1.0 to 2.0 pt/A for control of actively growing weeds. Read and follow directions for this use on the Gramoxone Inteon Herbicide label.

### **Preharvest**

Touchdown CT may be applied as a broadcast spray with ground or aerial equipment as a harvest aid. Touchdown CT should be applied at 35% grain moisture or less. Ensure corn has reached physiological maturity (black layer formed) and that maximum kernel fill is complete. Do not apply a preharvest treatment on corn grown for seed as a reduction in germination or vigor may occur.

### **COTTON**

**Method of Application:** Before, during, or after planting, but before crop emergence, hooded sprayer; recirculating sprayer, spot spray, wiper/wick applicators, preharvest, and postharvest.

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to **WEEDS CONTROLLED** section, for application rates and timing.

#### **Use Precautions and Restrictions for Cotton**

- Spot applications must be made prior to boll opening.
- Preharvest, hooded, and wiper/wick applications must be made at least 7 days before harvest.
- Do not apply more than 24 fl oz/A by air; nor more than 48 fl oz/A by ground for preharvest.
- Do not feed or graze treated cotton forage or hay following preharvest application.

#### **Tank Mixtures for Cotton (Preplant/Preemergence)**

**For Control of Annual Weeds in a Residual Herbicide Tank Mix:** Refer to the **WEEDS CONTROLLED** section, Tables 1 and 2, for application rates and timing. Apply Touchdown CT at 0.7 to 4.3 pt/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 1.5 to 5.8 pt/A of Touchdown CT.

**For Control or Suppression of Perennial Weeds in a Residual Herbicide Tank Mix:** Refer to the **PERENNIAL WEEDS CONTROLLED** section, Table 3, 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.

Touchdown CT can be tank mixed with the following products:

Caparol®	Dual II MAGNUM
Command®	Karmex®
Clarity	Meturon®
Cotoran®	Prowl
Cotton-Pro®	Staple®
Cy-Pro®	Solicam®
Direx®	Valor®
Dual MAGNUM	2-4,D

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

## Hooded Sprays

Touchdown CT may be used through hooded sprayers that completely enclose the spray pattern for weed control between the rows. Adjust the hooded sprayer in raised seedbeds to ensure the front and rear flaps touch the ground to completely enclose the spray solution.

Apply in 10-20 gals. of water per acre and do not exceed 30 psi spray pressure. Refer to **WEEDS CONTROLLED** section for application rates and timing.

Crop injury may occur when the foliage of treated weeds comes in direct contact with the leaves of the crop.

## Application Requirements

- Spray hoods must be operated on the ground or skimming across the ground.
- Maximum allowable application speed is 5 mph.
- Maximum allowable wind speed at application is 10 mph.
- Use low drift nozzles.

## Tank Mixtures (Hooded)

Touchdown CT can be applied in a tank mix with most cotton herbicides which are labeled for hooded, shielded, or post-directed applications. Refer to individual product labels for precautionary statements, restrictions, rates, and a list of weeds controlled.

## Preharvest

Development of immature bolls will be inhibited and yield potential will be affected when applications are made too early. Apply after bolls to be harvested are mature. Do not apply a preharvest treatment on cotton grown for seed as a reduction in germination or vigor may occur.

For **defoliation, desiccation, or regrowth control** of cotton, apply 24 fl. oz./A to 48 fl. oz./A. Apply in 3 to 30 gals. of water per acre by ground or in 3 to 15 gals. of water per acre by air.

Refer to the **WEEDS CONTROLLED** section for application rates and timing.

Touchdown CT can be tank mixed with the following products for improved defoliation or boll opening: DEF®, Dropp®, Folex®, Ginstar® EC, Prep™.

Refer to individual product labels for precautionary statements, restrictions, rates, and a

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list of weeds controlled.

## **FALLOWLAND AND POSTHARVEST USE**

**Method of Application:** Chemical fallow, fallow beds, stale seedbeds, aid to tillage, and postharvest.

Touchdown CT may be applied by ground or air during the fallow period prior to planting or emergence of any crop listed on this label. There are no rotational crop restrictions following application of this product.

### **Chemical Fallow - Ecofallow**

Touchdown CT 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 for use rates and timing. Broadcast or spot treatments of Touchdown CT will control or suppress perennial weeds. Refer to Table 3 for use rates and timing. Follow directions listed in the **APPLICATION AND MIXING 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 2. Tank mixing with atrazine may provide residual control.

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

Touchdown CT 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 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 CT will control or suppress perennial weeds. Refer to Table 3 for use rates and timing. Follow directions listed in the **APPLICATION AND MIXING 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 weeds listed in Table 2. A postharvest tank mix with atrazine may be used if the field will be planted to corn or sorghum or laid fallow the following season. A tank mix with atrazine may be applied for residual control of certain annual weeds such as common lambsquarters, kochia, mustards, pigweeds, and volunteer wheat. Tank mixing with atrazine may result in reduced performance.

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### Aid to Tillage

Touchdown CT may be used in conjunction with tillage operations in fallow systems to control cheat, downy brome, foxtails, tansy mustard, and volunteer cereals. Apply 4 to 9 fl oz/A of Touchdown CT in 3 to 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 AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections of this label.

### Fallow Beds/Stale Seedbeds

Touchdown CT may be used to control weeds in fallow or stale seedbeds, including preplant/preemergence of any crop. Follow directions listed in the **APPLICATION DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections of this label. Refer to **WEEDS CONTROLLED** section for application rates and timing. Touchdown CT can be tank mixed with 2,4-D, dicamba, or Goal herbicide for improved control of certain weeds.

### Tank Mixture with Goal Herbicide

Apply Touchdown CT at 6 to 12 fl oz/A with Goal herbicide at 2 to 3 fl oz/A for control of chickweed, common cheeseweed, and common groundsel that are less than 3 inches in height or diameter. Apply Touchdown CT at 12 to 17 fl oz/A with Goal at 2 to 3 fl oz/A for control of common cheeseweed, common groundsel, and horseweed/marestail that are a maximum of 6 inches in height and length; or chickweed, London rocket, and shepherds-purse that are a maximum of 12 inches in height or length.

### Postharvest Use

Touchdown CT 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**, **WOODY BRUSH AND TREES CONTROLLED** section for use rates. Repeat applications may be necessary to control weeds emerging after application. Use the higher rate on heavy or sodded infestations.

### Use Precautions and Restrictions for Fallowland and Postharvest Use

- 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 CT will not control volunteer glyphosate-tolerant crops.
- There are no rotational crop restrictions following application of this product.

### **GRASS SEED PRODUCTION**

**Method of Application:** Before, during, or after planting, but before crop emergence, renovation, site preparation, shielded/hooded sprayers, wiper/wick applicators, spot treatments, creating rows in annual ryegrass.

Apply to turf or forage grass areas grown for seed production. Applications **must** be made prior to the emergence of the crop to avoid crop injury. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED** section for rates and timing.

### **Use Precautions and Restrictions for Grass Seed Production**

- Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring, or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.
- Do not feed or graze treated areas for 8 weeks following application.
- Vegetation contacted by Touchdown CT will be injured or killed.
- For spot treatments, apply prior to heading of grasses.

### **Shielded/Hooded Sprayers**

**Use Instructions:** Apply 1 to 3 quarts of Touchdown CT in 10 to 20 gallons of water per acre to control weeds in the rows. Uniform planting in straight rows aid in shielded/hooded applications. Best results are obtained when the grass seed crop is small enough to easily pass by or through the protective shields/hoods.



## Wiper/Wick Applicators

Applicators should be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. Better results may be obtained if 2 applications are made in opposite directions.

## GRASSES

Touchdown CT can be used in the production of grasses listed below:

Bahiagrass	Orchardgrass
Bermudagrass	Ryegrass
Bluegrass	Timothy
Bromegrass	Wheatgrass
Fescue	

**Method of Application:** Before, during, or after planting but before emergence; renovation; spot spray; and wiper/wick.

Follow directions listed in the **APPLICATION DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED**, **WOODY BRUSH AND TREES CONTROLLED** section for rates and timing.

### Use Precautions and Restrictions for Grasses

- Remove domestic livestock and wait 8 weeks before grazing or harvesting for forage and hay following preplant, preemergence, or pasture renovation applications.
- If using spot or wiper/wick application, remove domestic livestock before application and wait 14 days before grazing or harvesting for forage or hay.

### Tank Mixtures for Grasses Preplant/Preemergence, Dormant, or Renovation

Touchdown CT 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 for application rates and timing. Apply Touchdown CT at 0.7 to 5.8 pt/A in these tank mixes for control or suppression of annual and perennial weeds. For control or suppression of dense populations of weeds greater than 12 inches in height or weeds under stress, consider

use rates at the higher end of the rate range.

2,4-D  
Dicamba

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

### **HERBS (PEPPERMINT, SPEARMINT)**

#### **Method of Application:** Spot spray

Touchdown CT may be applied as a spot spray in peppermint and spearmint. Apply spray-to-wet with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, handguns, handwands, or any other hand-held or motorized spray equipment used to direct the spray solution on to a limited area.

Follow directions listed in the **APPLICATION DIRECTIONS, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED** section for rates and timing.

#### **Use Precautions and Restrictions for Herbs (Peppermint, Spearmint)**

Apply at least 7 days before harvest.

Plants contacted by Touchdown CT will be injured or killed.

### **PASTURES**

Touchdown CT can be used on pastures of the following type:

Alfalfa	Fescue
Bahiagrass	Orchardgrass
Bermudagrass	Ryegrass
Bluegrass	Timothy
Bromegrass	Wheatgrass
Clover	

**Method of Application:** Before, during, or after planting but before emergence, renovation, spot spray, and wiper/wick.

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED** section for rates and timing.

For best results, remove domesticated livestock 14 days before treatment. Allow 2 to 6

inches of new growth prior to treatment.

To aid in renovation of pastures, Touchdown CT may be applied at 8 to 48 ounces per acre to dormant pastures. Applications of Touchdown CT to green, non-dormant plant tissue of desirable species will cause stunting, plant injury, or plant death.

#### **Use Precautions and Restrictions for Pastures**

- Remove domestic livestock and wait 8 weeks before grazing or harvesting for forage and hay following preplant, preemergence, or pasture renovation applications.
- If using spot or wiper/wick application, remove domestic livestock before application and wait 14 days before grazing or harvesting for forage or hay.

#### **Tank Mixtures for Pastures**

Touchdown CT 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: 2,4-D, dicamba. Refer to the **WEEDS CONTROLLED** section for application rates and timing. Apply Touchdown CT at 0.7 to 5.8 pints per acre in these tank mixes for control or suppression of annual and perennial weeds. For control or suppression of dense populations of weeds greater than 12 inches in height or weeds under stress, consider use rates at the higher end of the rate range.

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

#### **SAFFLOWER**

**Method of Application:** Before, during, or after planting, but before crop emergence and preharvest.

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

#### **Use Precautions and Restrictions for Safflower**

- Make only one preplant or preemergence application with no more than 70 fl oz/A.
- Make preharvest applications at least 7 days before harvest or livestock feeding with no more than 70 fl oz/A.

**Method of Application:** Pre-harvest

For weed control as a harvest aid, apply to safflower when seed has lost its opaque

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character, approximately 20-30 days after the end of flowering of the secondary branches.

## **SMALL GRAINS**

Touchdown CT may be used on the small grain crops listed below:

Barley	Teosinte
Millet (pearl, proso)	Triticale
Oats	Wheat (all)
Rye	

**Method of Application:** Before, during, or after planting, but before crop emergence, as a spot spray (except rice), preharvest (feed barley and wheat only), postharvest, and wiper/wick (wheat only).

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to **WEEDS CONTROLLED** section for application rates and timing.

### **Use Precautions and Restrictions for Small Grains**

- Apply at least 7 days before harvest at no more than 24 fl oz/A preharvest in wheat and feed barley.
- For wiper/wick applications in wheat, allow at least 35 days between application and harvest.
- Crop plants contacted by Touchdown CT will be injured or killed.

### **Tank Mixtures for Preplant/Preemergence Use for Small Grains**

Touchdown CT can be tank mixed with the following herbicides for control or suppression of annual and perennial weeds: 2,4-D, dicamba. Under certain conditions, the mixture of Touchdown CT with one or more herbicide tank mix combinations may result in a reduction of activity.

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

### **Preharvest (Wheat and Feed Barley Only)**

Touchdown CT may be applied as a broadcast spray with ground or aerial equipment as a harvest aid. For wheat, Touchdown CT should be applied after the hard dough stage of grain (30% or less grain moisture). For feed barley, apply after grain contains 20% moisture or less. Cool, wet, and/or cloudy weather conditions following application

may slow down the activity of this product. Do not apply a preharvest treatment on grain grown for seed as a reduction in germination or vigor may occur.

## **SORGHUM (MILO)**

**Method of Application:** Before, during, or after planting, but before crop emergence, spot spray, wiper/wick, hooded sprayers, preharvest, and postharvest.

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to **WEEDS CONTROLLED** section for application rates and timing.

### **Use Precautions and Restrictions for Sorghum**

- Spot applications must be made before heading of milo.
- Wiper and wick applications must be made 40 days before harvest. Do not feed or graze wiper/wick treated milo fodder. Do not ensile wiper/wick treated foliage.
- Apply no more than 2.2 quarts per acre per season by hooded applications.
- Do not feed or graze sorghum forage and fodder after hooded applications.
- Preharvest applications must be made at least 7 days prior to harvest or feeding of treated vegetation with a maximum of 1.4 quarts per acre.
- Contact with sorghum foliage may result in crop injury.

### **Tank Mixtures for Sorghum (Preplant/Preemergence)**

**For Control of Annual Weeds in a Residual Herbicide Tank Mix:** Refer to the **WEEDS CONTROLLED** section, Tables 1 and 2, for application rates and timing. Apply Touchdown CT at 0.7 to 4.3 pints per acre 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 1.5 to 5.8 pints per acre of Touchdown CT herbicide.

**For Control or Suppression of Perennial Weeds in a Residual Herbicide Tank Mix:** Refer to the **WEEDS CONTROLLED** section, Table 3, 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.

Touchdown CT can be tank mixed with the following products:

Atrazine	Frontier
Bicep Lite II	Guardsman
Bicep Lite II MAGNUM	Karate
Bicep II MAGNUM	Prowl
Dicamba	Sequence®
Dual II MAGNUM	Warrior

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

### **Hooded Sprays**

Touchdown CT may be used through hooded sprayers that completely enclose the spray pattern for weed control between the rows. Adjust the hooded sprayer in raised seedbeds to ensure the front and rear flaps touch the ground to completely enclose the spray solution.

Crop injury may occur when the foliage of treated weeds comes in direct contact with the leaves of the crop. Do not apply Touchdown CT when the leaves of the crop are growing in direct contact with weeds to be treated.

### **Application Requirements**

- The spray hoods must be operated on the ground or skimming across the ground. Treat before tillers extend between the drill rows as spray contacting these tillers may kill the main plant.
- Sorghum must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8-inch untreated strip over the drill row.
- Maximum allowable application speed is 5 mph.
- Maximum allowable wind speed at application is 10 mph.
- Use low-drift nozzles.

Gramoxone Inteon Herbicide may be considered for hooded sprayer applications in sorghum. Use Gramoxone Inteon at 1.0 to 2.0 pt/A for control of actively growing weeds. Read and follow directions for this use on the Gramoxone Inteon Herbicide label.

## Preharvest

For weed control and desiccation of sorghum, apply 24 to 48 fluid ounces per acre. Apply in 3 to 30 gallons of water per acre by ground or in 3 to 15 gallons of water per acre by air.

Apply after most of the heads have matured. Apply when grain moisture is 30% or less. Development of immature heads will be interrupted and yield potential will be affected when applications are made too early. Do not apply a preharvest treatment on sorghum grown for seed as a reduction in germination or vigor may occur.

## SOYBEANS

**Method of Application:** Before, during, or after planting, but before crop emergence, spot spray, wiper/wick, preharvest, postharvest.

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS, SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to **WEEDS CONTROLLED** section for application rates and timing.

### Use Precautions and Restrictions for Soybeans

- Spot application must be made prior to initial pod set.
- Wiper/wick application must be made at least 7 days before harvest.
- Make preharvest applications at least 7 days before harvest of soybeans with no more than 4.3 quarts per acre by ground; and no more than 48 fluid ounces per acre by air.
- Allow at least 25 days before grazing or harvesting for livestock feed following harvest aid application. If the application rate is no more than 23 fl oz/A the grazing interval is reduced to 14 days after the last preharvest application.
- Soybeans, except glyphosate-tolerant varieties, will be injured or killed when contacted with Touchdown CT.

### Tank Mixtures for Soybeans (Preplant/Preemergence)

**For Control of Annual Weeds in a Residual Herbicide Tank Mix:** Refer to the **WEEDS CONTROLLED** section, Tables 1 and 2, for application rates and timing. Apply Touchdown CT at 0.7 to 4.3 pints per acre 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 1.5 to 5.8 pints per acre of Touchdown CT herbicide.

**For Control or Suppression of Perennial Weeds in a Residual Herbicide Tank Mix:** Refer to the **WEEDS CONTROLLED** section, Table 3, 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 3.

Touchdown CT can be tank mixed with the following products:

Authority®	Flexstar®	Lorox	Scepter®
Authority™ Broadleaf	Frontier	Lorox Plus	Sencor®
Canopy®	Fusilade®	Partner	Squadron®
Canopy XL®	Fusion®	Preview®	Steel™
Command	Gemini®	Prowl	Turbo®
Cover	Karate	Pursuit®	Warrior
Dual MAGNUM	Lasso	Pursuit® Plus	2,4-D
Dual II MAGNUM	Linex	Reflex®	2,4-DB
FirstRate™			

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

### **Preharvest for Glyphosate-Tolerant Soybeans (Including Roundup Ready)**

Touchdown CT may be applied preharvest as a broadcast spray with ground or aerial equipment as a harvest aid. Touchdown CT provides weed control when applied preharvest to soybeans and may aid in crop dry down.

- Apply 24 fl oz/A Touchdown CT to mature soybeans when pods have lost their color.
- Do not apply a preharvest treatment to soybeans grown for seed as a reduction in germination or vigor may occur.
- Make preharvest applications at least 14 days before harvest of soybeans with no more than 24 fl oz/A by air or ground.
- Do not graze or harvest treated forage or hay.

### **SUNFLOWER**

**Method of Application:** Preplant/Preemergence and Preharvest.

Follow directions listed in the **APPLICATION AND MIXING DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to **WEEDS CONTROLLED** section for application rates and timing.



### **Use Precautions and Restrictions for Sunflower**

- Control of weeds may also be improved by adding dry ammonium sulfate at 1-2% by weight or 8.5-17 lbs./100 gals. of water.
- Make only one preplant, preemergence or preharvest application with no more than 24 fl oz/A.
- Do not graze or feed sunflower forage.
- Make preharvest applications at least 7 days before harvest or livestock feeding with no more than 24 fl oz/A.
- Avoid contact with sunflower foliage.

### **Tank Mixtures for Preplant/Preemergence Use for Sunflower**

Touchdown CT can be tank mixed with the following herbicides: Eptam, Prowl, Trifluralin 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 for application rates and timing. Apply Touchdown CT at up to 24 fl oz/A in these tank mixes for control or suppression of annual and perennial weeds. For control or suppression of dense populations of weeds greater than 12 inches in height or weeds under stress, consider use rates at the higher end of the rate range.

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

### **Preharvest**

For weed control as a harvest aid in sunflower, apply no more than 24 fl oz/A to physiologically mature sunflower when the back of the heads are yellow and bracts are turning brown and seed moisture content is less than 35%.

**VEGETABLE CROPS**

Touchdown CT may be used on the vegetable crops listed below:

Amaranth	Guar
Arrugula	Horseradish
Artichoke (Jerusalem)	Kale
Asparagus	Kohlrabi
Beans (all)	Leeks
Beet, garden	Lentils
Beet, sugar	Lettuce
Broccoli (all)	Melons (all including citron, crenshaw, honey balls, honeydew, mango, musk, Persian)
Brussels Sprouts	Mizuna
Cabbage (all)	Mustard greens
Cabbage (Chinese)	Okra
Cantaloupe	Onions (green, spring, Japanese bunching)
Cardoon	Parsley, turnip-rooted
Carrot	Parsnip
Casaba	Peas (all)
Cavalo Broccolo	Pepinos
Cauliflower	Pepper (all)
Celeriac	Potato (Irish)
Celery	Pumpkin
Celery (Chinese)	Purslane
Celtuce	Radish
Chard (Swiss)	Radish, oriental (daikon)
Chayote	Rape greens
Chervil	Rhubarb
Chick peas	Rutabaga
Chicory	Salsify, black
Chrysanthemum	Salsify (oyster plant)
Collards	Salsify (Spanish)
Corn salad	Shallots
Cress	Spinach (all)
Cucumber	Spinach, mustard
Dandelion	Squash (summer, winter)
Dock (sorrel)	Sweet potato
Eggplant	Tomatillo
Endive	Tomato
Fennel (Florence)	Turnip
Garlic	Watercress
Gherkin	Watermelon
Ginseng	Yams
Gourd, edible	
Groundcherry	

**Method of Application:** Broadcast application before transplanting or before, during, or after planting but prior to crop emergence if direct seeded; spot spray; wiper/wick (rutabaga only); postharvest. In addition, preharvest or spot application in dry beans, peas, lentils and chickpeas.

Follow directions listed in the **APPLICATION DIRECTIONS**, **SPRAY ADDITIVES**, and **APPLICATION EQUIPMENT AND TECHNIQUES** sections of this label. Refer to **WEEDS CONTROLLED** for application rates and timing.

### **Use Precautions and Restrictions for Vegetable Crops**

- For **Asparagus**, do not apply broadcast within one week of emergence of first spears. Spot applications can be made immediately after cutting, but before emergence. Spears can be harvested 5 days after spot application. Postharvest applications can be made as a directed or shielded spray avoiding contact of the spray with the ferns, stems, or spears.
- Wiper/wick applications to rutabagas must be made at least 14 days before harvest.
- Make one preharvest or one spot application in **dry beans** with no more than 24 fl oz/A or in **peas, lentils, and chickpeas** with no more than 69 fl oz/A at least 7 days before harvest.
- Employ at least a 30 day plant back interval between treatment and replanting for any crop not listed on this label.
- Do not feed treated vines and hay to livestock.
- Do not combine a preharvest with a spot application on the same crop area.
- Do not treat cowpeas or field (feed) peas, these crops are considered as livestock feed.
- Wait 3 days after application before planting cantaloupe, casaba, chayote, Chinese okra, Chinese waxgourd, cucumber, cucuzza, edible gourd, eggplant, gherkin, gourds, groundcherry, melons (all), pepper (all), pumpkin, squash, tomatillo, watercress, and watermelon.
- If transplanting into plastic mulch, ensure residues of this product are removed from the plastic prior to transplanting. Residues can be removed by a minimum of ½ inch of sprinkler irrigation or rainfall.
- Preharvest application is not recommended for legumes grown for seed as reduction in germination or vigor may occur.

## Tank Mixtures with Residual Herbicides for Preplant/Preemergence Use in Vegetables

Touchdown CT 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 for application rates and timing. Apply Touchdown CT at 0.7 to 5.8 pt/A in these tank mixes for control or suppression of annual and perennial weeds. For control or suppression of dense populations of weeds greater than 12 inches in height or weeds under stress, consider use rates at the higher end of the rate range.

Devrinol	Matrix®
Command	Prefar®
Dual Magnum	Prowl
Dual II Magnum	Sencor
Fusilade DX	Trifluralin
Goal	Treflan®
Kerb	Turbo
Lorox	

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

## Preharvest

Touchdown CT may be applied over-the-top of dry beans, peas, lentils and chickpeas to control weeds before harvest. Apply no more than 24 fl oz/A in dry beans or no more than 69 fl oz/A in peas, lentils, and chickpeas in 3-20 gallons of water per acre at the hard dough stage of the legume seed (30% or less grain moisture). Only one application per year may be made.

## Spot Treatment

Touchdown CT may be applied as a spot treatment to control troublesome weeds in dry beans at no more than 24 fl oz/A, and in peas, lentils, and chickpeas at no more than 69 fl oz/A. Apply in 10-20 gallons of water using a ground sprayer or use a 2% solution in a hand-held sprayer. For best results, make applications at or beyond the bud stage of growth. Only one application per year may be made.

## NONAGRICULTURAL USE AREAS

Touchdown CT may be used for control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds and unwanted woody brush and trees in **NONAGRICULTURAL USE AREAS**. Nonagricultural use areas include airports; apartment complexes; Christmas tree farms; fencerows; forests; golf courses, habitat

restoration and management areas; highways; industrial sites; lumber yards; manufacturing sites; natural areas; office complexes; ornamental nurseries; parks; parking areas; pasture and rangeland petroleum tank farms and pumping installations; pipeline, power, telephone and utility rights-of-way; railroads; recreational areas; residential areas; roadsides; schools; storage areas; utility substations; warehouse areas.

Do not apply this product by direct application (ground or air) to any body of water.

**Cultural Considerations:** Application to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment may result in reduced control. Weeds covered with dust or weeds damaged by insects or disease may result in reduced weed control.

**Rainfastness:** Heavy rainfall or irrigation shortly after application may require retreatment.

**No Soil Activity:** Touchdown CT does not provide soil residual control of weeds. Only emerged weeds at the time of application will be controlled. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected.

## **RATES**

Follow specified rates for Touchdown CT listed in the **WEEDS CONTROLLED, WOODY BRUSH AND TREES 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.

## **TANK MIXES WITH RESIDUAL HERBICIDES**

Refer to crop sections for tank mixes. Tank mixes of Touchdown CT 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  $\frac{1}{2}$  full with clean water.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add AMS (if used).
4. Add dry formulations (WP, DF, etc.) to tank.
5. Add liquid formulations (SC, EC, L, etc.) to tank.
6. Add Touchdown CT.
7. Fill remainder of spray tank.

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## **APPLICATION PROCEDURES – NONAGRICULTURAL USE AREAS**

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### **APPLICATION EQUIPMENT AND TECHNIQUES**

- Do not make direct applications to any body of water.
- Avoid drift. Applications should not be made 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.
- Compatibility with drift control additives may vary. It is recommended that the combination be tested on a small scale such as a jar test. Read and follow manufacturer's directions for use. A reduction in weed control may occur when drift control agents are used.
- All 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 CT. 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.

Do not make direct applications to any body of water.

## 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 ft above the canopy should be avoided.

Do not make direct applications to any body of water.

Do not make applications by air to forestry sites or utility rights-of-way.

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 CT 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

Prolonged exposure of Touchdown CT to uncoated steel surfaces may result in corrosion and possible failure of the part. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of Touchdown CT accumulated during spraying or from spills. Landing gear are most susceptible.

For aerial application in California, refer to the Federal Supplemental Label for aerial application for specific instructions, restrictions, and requirements. For aerial application, consult with State or local authorities regarding any additional requirements for aerial treatments. Banvel tank mixtures may not be applied by air in California.

Do not make direct applications to any body of water.

## SHIELDED/HOODED APPLICATION

Use shielded/hooded sprayers to control weeds between rows while protecting the crop from the herbicide. Keep shields/hoods as close to the ground as possible and avoid

ground speed in excess of 5 mph. Use appropriate nozzles, spacing, and pressure to achieve coverage without allowing spray to touch or drift onto the crop. Maintain equipment in good operating condition to prevent leakage or dripping onto the crop. Refer to state extension service recommendations and equipment manufacturers' guidelines for more information on proper operation of shielded/hooded sprayers.

## SPOT TREATMENTS

For annual weeds less than 6 inches, use a 0.4 to 0.7% v/v solution. For annual weeds over 6 inches, use a 0.7 to 1.1% v/v solution. Use a 0.7 to 1.5% v/v solution for most perennials (see Table 3 for specific rates and timing). When using motorized spot spray equipment (rider bar), use a 2.2% v/v solution. See Spot Spray Dilution Table below for rates of Touchdown CT/volume of finished spray solution. Spray the solution on actively growing weeds until uniformly wet but not to the point of runoff. Retreat 14 to 21 days later if regrowth occurs.

**Touchdown CT Spot Spray Dilution Table**

Solution Strength	To Make This Volume			
	1 gallon	10 gallons	25 gallons	100 gallons
0.4%	0.5 fl oz	5 fl oz	12 fl oz	3 pt
0.7%	0.9 fl oz	9 fl oz	1.4 pt	5.6 pt
0.9%	1.2 fl oz	12 fl oz	1.9 pt	3.8 qt
1.1%	1.4 fl oz	14 fl oz	2.2 pt	4.4 qt
1.5%	1.9 fl oz	1.2 pt	3 pt	1.5 gal
2.2%	2.8 fl oz	1.8 pt	4.4 pt	2.2 gal
5%	6.4 fl oz	4.0 pt	10 pt	5 gal
10%	12.8 fl oz	1 gal	2.5 gal	10 gal

For use in backpack sprayers, it is suggested that the recommended amount of Touchdown CT be mixed with water in a large container. Fill sprayer with the mixed solution.

## WIPER APPLICATION

Touchdown CT may be applied using a wiper or "wick" applicator (e.g. rope, sponge, or porous plastic applicators) for selective control or suppression of annual and perennial weeds which become taller than the crop or desirable vegetation. Mix 3 qt of Touchdown CT in 2 gallons of water unless directed otherwise in this label (See **Use Precautions and Restrictions for Berries, Fruits, Nuts, and Vines**). 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.



## Hand-Held and High-Volume Equipment

For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in Table 1 (**Annual Weeds Controlled**), apply a 0.5% solution of Touchdown CT to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1% solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For harder-to-control perennials, such as bermudagrass, Canada thistle, dock, field bindweed, hemp dogbane, and milkweed, use a 2% solution.

For low volume directed spray applications, use a 5 to 10% solution of Touchdown CT for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. When spraying large woody brush and trees with dense and thick foliage or multiple sprouts, spray both sides to ensure adequate coverage.

## Injection Systems

Touchdown CT may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix Touchdown CT with the undiluted concentrate of other products when using injection systems unless specifically recommended.

## CDA EQUIPMENT

For control of annual weeds with hand held equipment, apply a 20% solution of Touchdown CT at a flow rate of 2 fl oz per minute and a walking speed of 1.5 mph (1 qt/A). For perennial weeds, use a 20 to 30% solution of Touchdown CT at a flow rate of 2 oz per minute and a walking speed of 0.75 mph (2 to 3 qt/A). For vehicle mounted equipment, apply in 3 to 15 gallons of water per acre. Refer to the **WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED** sections for application rates and timing.

Precautions should be taken to avoid contact with crops or desirable vegetation.

## LOW VOLUME EQUIPMENT

For low volume directed spray applications, use a 5 to 10% solution of Touchdown CT for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. When spraying large woody brush and trees with dense and thick foliage or multiple sprouts, spray both sides to ensure adequate coverage.

## **Selective Equipment**

### **AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.**

Touchdown CT may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators, or sponge bars to listed weeds growing in any noncrop site specified on this label. A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation. Spray solution not intercepted by weeds is collected and returned to the spray tank for reuse. Shielded or hooded sprayers direct the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

Adjust selective applicators so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam, or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting, or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. In dense clumps, severe infestations, or when the height of the weeds varies so that not all weeds are contacted, repeat treatment may be necessary.

### **Shielded and Hooded Applicators**

For shielded and hooded applicators, use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation.

### **Wiper Applicators and Sponge Bars**

Equipment must be designed, maintained, and operated to prevent the herbicide solution from contacting desirable vegetation. Apply at ground speeds of 5 mph or less. Use slower speeds where weeds are dense. For improved control, make 2 applications in opposite directions.

Do not use wiper equipment when weeds are wet.

Use the spray solution within 24 hours of mixing.

**For Rope or Sponge Wick Applicators:** Mix 1 to 2 gallons of Touchdown CT in 2 gallons of water to prepare a 33 to 75 % solution. Apply this solution to weeds listed in this section.

**For Porous Plastic Applicators and Pressure Feed Systems:** Mix 1 gallon of Touchdown CT in 2 gallons of water to prepare a 33% solution up to using the product undiluted as a 100% solution. Apply this solution to weeds listed in this section.

When applied as directed, Touchdown CT controls the following weeds:

Corn, volunteer	Sicklepod
Panicum, Texas	Spanishneedles
Rye, common	Starbur, bristly
Shattercane	

When applied as directed, Touchdown CT suppresses the following weeds:

Beggarweed, Florida	Milkweed	Sunflower
Bermudagrass	Nightshade, silverleaf	Thistle, Canada
Dogbane, hemp	Pigweed, redroot	Thistle, musk
Dogfennel	Ragweed, common	Vaseygrass
Guineagrass	Ragweed, giant	Velvetleaf
Johnsongrass	Smutgrass	

#### **SITE AND USE DIRECTIONS – NONAGRICULTURAL USE AREAS**

Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial, and woody brush tables (Table 1, 2, and 3). Refer to the **APPLICATION PROCEDURES** section for additional rate information.

#### **TANK MIXES**

Refer to use sections for tank mixes. Tank mixes of Touchdown CT 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  $\frac{1}{2}$  full with clean water.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add AMS (if used).
4. Add dry formulations (WP, DF, etc.) to tank.
5. Add liquid formulations (SC, EC, L, etc.) to tank.
6. Add Touchdown CT.
7. Fill remainder of spray tank.

## SPRAY ADDITIVES

### Ammonium Sulfate (AMS)

Control of annual and perennial weeds with Touchdown CT may be improved by adding dry ammonium sulfate at 0.5% by weight or 4.25 to 17 lb/100 gallons of water. Liquid formulations of AMS may be used at an equivalent rate. Do not reduce use rates of Touchdown CT when using AMS.

### Drift Control Agents

Drift control agents may be used with Touchdown CT.

### Dyes/Colorants

Dyes or colorants approved for agricultural use can be used in spray solutions of Touchdown CT. Use according to manufacturer's direction. Addition of these dyes/colorants may reduce performance, especially at low dilution rates.

When an adjuvant is to be used with the product, the use of an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CDPA) adjuvant certification program is recommended.

## SPECIFIC USE DIRECTIONS – NONAGRICULTURAL USE AREAS

This section is organized alphabetically by nonagricultural use site description. There may be several application sites listed in a category.

### FARMSTEADS (NONCROP)

**Method of Application:** General nonselective weed control, trim-and-edge, chemical mowing, cut stumps, and habitat management.

Applications can be made in noncrop areas on the farm including:

Barrier strips	Farmyards
Ditchbanks	Fence rows
Dry ditches and dry canals	Fuel storage areas
Equipment areas	Rights-of-way
Farm buildings	Shelterbelts
Farm roads	Soil bank land

Follow directions listed in the **APPLICATION DIRECTIONS, SPRAY ADDITIVES**, and

**APPLICATION EQUIPMENT AND TECHNIQUES** sections. Refer to the **WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED** sections for rates and timing.

### **Tank Mixtures for Farmsteads**

Refer to the **ANNUAL WEED CONTROL** section, Table 1, for application rates and timing. For annual weeds, use 0.7 to 2.9 qt/A of this product when weeds are less than 6 inches tall and 1.1 to 2.9 qt/A when weeds are greater than 6 inches tall.

Refer to the **PERENNIAL WEED CONTROL** section, Table 3, for application rates and timing. For perennial weeds, apply 1.5 to 3.6 qt/A in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns, or other high-volume spray-to-wet applications, see the **APPLICATION EQUIPMENT AND TECHNIQUES** section of this label for specified rates.

Touchdown CT can be tank mixed with the following products:

Banvel®	Simazine
Direx	Surflan
Diuron	2,4-D
Princep Caliber 90	

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

### **Chemical Mowing**

Touchdown CT will suppress perennial grasses listed in this section to serve as a substitute for mowing. Apply Touchdown CT at a rate of 3 to 6 fl oz/A. Use 3 to 4 fl oz of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

### **Cut Stumps**

Alder	Salt-cedar
Eucalyptus	Sweetgum
Madrone	Tan oak
Oak	Willow
Reed, giant	

Touchdown CT will control regrowth of cut stumps and resprouts of many types of

woody brush and tree species, some of which are listed. Apply Touchdown CT using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100% solution of Touchdown CT completely covering the freshly cut surface immediately after cutting. Application delay may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

## **FORESTRY AND UTILITY RIGHTS-OF-WAY USES**

Touchdown CT may be used for the control or partial control of woody brush, trees, annual, and perennial weeds in forestry and utility sites. Touchdown CT also may be used in preparing or establishing wildlife openings within these sites, for maintaining logging roads, and for side trimming along utility rights-of-way (including electrical power; pipeline and telephone rights-of-way; and utility sites such as substations).

Do not apply this product to any body of water.

Do not apply this product by air to forestry and utility rights-of-way.

Broadcast applications can be made at 1.4 to 7.2 qt/A in 10 to 60 gallons/A by ground.

Spray to wet applications can be made with a handgun, backpack, or mistblower applicator with a 0.75 to 2% spray solution. For low volume directed spray applications, use a 5 to 10% solution of Touchdown CT. Handguns, backpack, or mistblower applicators can be used. For low volume directed spray applications, coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results.

Refer to the **WEEDS, WOODY BRUSH AND TREES CONTROLLED** sections for use rates. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial weeds any time after emergence and before seedheads, flowers, or berries appear.

Use the lower rates of Touchdown CT within the specified range for control of annual weeds and actively growing perennial weeds after seedheads, flowers, or berries appear.

### Tank Mixtures for Use in Forestry Site Preparation and Utility Rights-of-Way

Tank mixtures of Touchdown CT may be used to increase the spectrum of vegetation controlled. Any specified rate of Touchdown CT may be used in a tank mix.

Arsenal®  
Chopper®  
Escort®  
Garlon™ 3A

Garlon™ 4  
Oust XP  
Vanquish®

- Only use Garlon 4 tank mixes or use Touchdown CT alone at specified rates in utility side trimming.
- Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding to tank mixture. Ensure adequate agitation at the time Garlon 3A is added to avoid spray compatibility problems.
- For forestry site preparation, make sure the tank mix product is approved for use prior to planting desired species.

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

### Forestry Conifer and Hardwood Release – Directed Spray and Selective Equipment

Touchdown CT may be applied with selective equipment or as a directed spray for forestry conifer and hardwood release, including Christmas tree plantations and silvicultural nurseries. See the **APPLICATION PROCEDURES** section for recommended equipment.

Spray to wet applications can be made with a 2% spray solution for control of undesirable woody brush and trees. Use a 1 to 2% spray solution for most annual and perennial weeds. For low volume directed spray applications, use a 5-10% solution of Touchdown CT. Handguns, backpack, or mistblower applicators can be used. Coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results.

Equipment calibrated for broadcast applications can be used. Use 1.4 to 7.2 qt of Touchdown CT in 10 to 60 gallons of clean water per acre. Use shielded application equipment to avoid contact with foliage or green bark of desirable plants.

Wiper application equipment may be used. Refer to the **Wiper Applicators and Sponge Bars** section for rate and use directions.

Refer to the **WEEDS, WOODY BRUSH AND TREES CONTROLLED** sections for use rates. For best results, apply to actively growing woody brush and trees after full leaf

expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial weeds any time after emergence and before seedheads, flowers, or berries appear.

Use the lower rates of Touchdown CT within the specified range for control of annual weeds and actively growing perennial weeds after seedheads, flowers, or berries appear.

### **Tank Mixtures for Use in Directed Spray and Selective Equipment**

Tank mixtures of Touchdown CT may be used to increase the spectrum of vegetation controlled. Any specified rate of Touchdown CT may be used in a tank mix.

Arsenal  
Garlon 4  
Oust XP

- Only use Oust XP tank mixes or use Touchdown CT alone at specified rates in hardwood plantations.
- Only use Garlon 4 or Arsenal tank mixes or use Touchdown CT alone at specified rates in pine plantations.

Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of trees, woody brush, and weeds controlled.

### **Forestry Conifer Release – Broadcast Spray**

To avoid injury to desirable species, make sure final resting buds have formed and are well hardened off before fall application or prior to initial bud swelling in the spring.

Touchdown CT can be used as a broadcast spray for conifer forest release. Apply Touchdown CT at 0.7 to 2.2 qt/A for species listed in the following table.



### Use for Release of the Following Conifer Species Outside the Southern U.S.

Species	Scientific Name	Remarks
Douglas Fir	<i>Pseudotsuga menziesii</i>	Apply 0.7 to 1.1 qt/A at end of first growing season.
Fir	<i>Abies</i> spp.	---
Hemlock	<i>Tsuga</i> spp.	Do not add surfactant. Injury may result.
Pines	<i>Pinus</i> spp.	Not for use on loblolly, long leaf, short leaf, or slash pine. Apply 0.7 to 1.1 qt/A at end of first growing season.
Redwood, California	<i>Sequoia</i> spp.	Do not add surfactant. Injury may result.
Spruce	<i>Picea</i> spp.	In Minnesota, up to 2.2 qt/A may be used for difficult to control woody brush and trees. In other areas, apply 0.7 to 1.1 qt/A at end of first growing season.

### Tank Mixtures for Broadcast Sprays.

Tank mixtures of Touchdown CT may be used to increase the spectrum of vegetation control.

Arsenal Applicators Concentrate  
Oust XP

- In Maine and New Hampshire, use 1 fl oz/A of Arsenal Applicators Concentrate in a tank mix to control difficult species.
- For Douglas Fir release, use 2 to 6 fl oz/A of Arsenal Applicators Concentrate in a tank mix with 0.7 to 1.1 qt/A of Touchdown CT.
- For Balsam Fir and Red Spruce release, use 1 to 2.5 fl oz/A of Arsenal Applicators Concentrate with 1.4 qt/A of Touchdown CT.
- For Jack Pine and White Spruce release, use 1 to 3 oz/A of Oust XP in a tank mix with 0.7 to 1.4 qt/A of Touchdown CT. For White Pine release, use 1 to 1.5 oz/A of Oust XP in a tank mix with 0.7 to 1.4 qt/A of Touchdown CT. Over-the-top applications to established stands can be made. Make sure late summer or final fall resting buds have formed before application.

## FORESTRY CONIFER RELEASE – BROADCAST – ANNUAL AND PERENNIAL WEED CONTROL

Touchdown CT may be used for the control of annual weeds and control or suppression of perennial weeds listed in the **WEED CONTROL** sections (Table 1 and 2). Make applications to actively growing weeds as a broadcast spray over the top of labeled conifers. For best results, apply in a maximum of 25 gallons of clean water per acre.

### Tank Mixtures for Residual Annual and Perennial Weed Control in Conifer Forests

Touchdown CT in a tank mix with the following residual herbicides can provide residual control of annual and perennial weeds.

Atrazine  
Oust XP

- For Loblolly Pine release, apply 11.5 to 17.3 fl oz/A of Touchdown CT in a tank mix with 2 to 4 oz/A of Oust XP.
- For Slash Pine release, apply 8.6 to 11.5 fl oz/A of Touchdown CT in a tank mix with 2 to 4 oz/A of Oust XP.
- These applications can be made to newly planted pines. For best results, apply after emergence of annual and perennial weeds in the spring or early summer. May and June applications are often the best.
- For Douglas Fir release, apply 0.7 qt/A of Touchdown CT in a tank mix with 4 lb a.i./A. Do not add surfactant. Applications can only be made to Douglas firs established at least one full growing season. Apply in early spring (mid-March to early April) before bud swell. Injury will occur if applications are made after bud swell.

Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of trees, woody brush, and weeds controlled.

**Note:** For all of the following use sites on this label, refer to Tables 1-4 for specific rates unless otherwise noted below.

### HABITAT MANAGEMENT AND HABITAT RESTORATION

Touchdown CT may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to

selectively remove unwanted plants for habitat maintenance and enhancement. Touchdown CT can be tank mixed with the following products:

Banvel	Simazine
Direx®	Surflan
Diuron	Vanquish
Princep® Caliber 90®	2,4-D

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

### **Wildlife Food Plots**

Touchdown CT may be used for site preparation for control of annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted or native species may be allowed to repopulate the area after applying Touchdown CT. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage.

### **ORNAMENTAL AND PLANT NURSERY USES**

For specific use rates, refer to **WEEDS CONTROLLED AND WOODY BRUSH AND TREES CONTROLLED** section for annual and perennial weed control.

Touchdown CT may be postdirected around established woody ornamental species such as arborvitae, azalea, boxwood, crabapple, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, privet, pine, spruce, and yew. Touchdown CT may also be used to trim-and-edge around trees, buildings, greenhouses, shadehouses, sidewalks and roads, potted plants, and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. TOUCHDOWN CT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS. Care must be exercised to avoid contact of spray, drift, or mist with foliage or green bark of established ornamentals.

When applying Touchdown CT to control weeds in and around shadehouses and greenhouses, desirable vegetation must not be present and air circulation fans must be off.

To aid in renovation of pastures, Touchdown CT may be applied at 7.2 to 46 fl oz/A to dormant pastures. Applications of Touchdown CT to green, nondormant plant tissue of desirable species will cause stunting, plant injury, or plant death.

## **TURFGRASS USES (INCLUDING ROADSIDES)**

Touchdown CT may be used on turf in any areas described in **NONAGRICULTURAL USE AREAS**.

### **Chemical Mowing**

Touchdown CT, at 4.3 fl oz in 10 to 40 gallons of water per acre, will suppress Kentucky bluegrass and serve as a substitute for mowing.

Touchdown CT, at 5.8 fl oz (0.5 pt) in 10 to 40 gallons of water per acre, will suppress fine fescue, orchardgrass, quackgrass, or tall fescue and serve as a substitute for mowing.

Touchdown CT, at 2.9 to 3.6 fl oz in 10 to 40 gallons of water per acre, will suppress some annual grasses such as ryegrass, wild barley, and wild oats growing in coarse turf on roadsides or other industrial areas. Make applications while the annual grasses are actively growing and before the seedheads reach the boot stage of development. Treatment may cause injury to the desired grasses.

### **Dormant Bermudagrass**

Touchdown CT may be used to control or partially control many winter annual weeds and tall fescue for effective release in dormant bermudagrass. Treat only when turf is dormant and prior to spring greenup. Apply 6 to 46 fl oz of Touchdown CT in 10 to 40 gallons of water per acre to control winter annuals less than 6 inches in height and tall fescue at or beyond the 4 to 6 leaf stage.

### **Dormant Bahiagrass**

Touchdown CT may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bahiagrass. Treat only when turf is dormant and prior to spring greenup. Apply 6 to 46 fl oz of Touchdown CT in 10 to 40 gallons of water per acre to control winter annuals less than 6 inches in height and tall fescue at or beyond the 4 to 6 leaf stage.

### Rates to Achieve Control (C) or Suppression (S) in Dormant Bermudagrass and Bahiagrass

Weed Species	Touchdown CT fluid oz/acre				
	5.8	8.6	11.5	17.3	23
Barley, little	S	C			
Bedstraw, catchweed	S	C			
Bluegrass, annual	S	C			
Chervil	S	C			
Chickweed, common	S	C			
Clover, crimson	*	S	S	C	
Clover, largehop	*	S	S	C	
Fescue, tall	*	*	*	*	S
Geranium, Carolina	*	*	S	S	C
Henbit	*	S	C		
Ryegrass, Italian	*	*	S	C	
Speedwell, corn	S	C			
Vetch, common	*	*	S	C	

\*These rates apply only to sites where an established competitive turf is present.

#### Tank Mix with Oust XP - Dormant Bermudagrass

Touchdown CT can be tank mixed with Oust XP for residual control. Apply 6 to 48 fl oz of Touchdown CT with 0.25 to 1 oz of Oust XP per acre. Use where some temporary injury or discoloration to a desirable bermudagrass stand can be tolerated. Use a maximum of 1 oz of Oust XP to minimize injury and avoid delays in greenup.

#### Actively Growing Bermudagrass

Touchdown CT may be used to control or partially control many annual and perennial weeds for effective release in actively growing, well established bermudagrass. Apply 12 to 36 fl oz of Touchdown CT in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height or runner length. Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass  
Bluestem, silver  
Fescue, tall

Johnsongrass\*  
Trumpet creeper\*\*  
Vaseygrass

\*Johnsongrass is controlled at the higher rate.

\*\*Suppression at the higher rate only.

Use only on well-established bermudagrass. Bermudagrass injury may occur but regrowth will occur under moist conditions. Repeat applications are not advised in the same season.

### **Tank Mix with Oust XP – Actively Growing Bermudagrass**

Touchdown CT can be tank mixed with Oust XP for residual control. Apply 12 to 23 fl oz of Touchdown CT with 1 to 2 oz of Oust XP per acre. Use lower rates of both products when treating annual weeds below 6 inches in height or runner length. Use the higher rates of both products as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Dallisgrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Dock, curly	Johnsongrass	Vaseygrass
Broomsedge	Dogfennel	Poor Joe	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may occur but regrowth will occur under moist conditions. Repeat applications are not advised in the same season.

### **Tank Mix with Oust XP - Dormant Bahiagrass**

Touchdown CT can be tank mixed with Oust XP for residual control. Apply 6 to 46 fl oz of Touchdown CT with 0.25 to 0.5 oz of Oust XP per acre. Use where some temporary injury or discoloration to a desirable bahiagrass stand can be tolerated.

### **Actively Growing Bahiagrass**

Touchdown CT, at 4 fl oz in 10 to 40 gallons of spray solution per acre, may be used to suppress vegetative growth and inhibit seedhead formation of actively growing bahiagrass for approximately 45 days. Make applications 1 to 2 weeks after green-up or after mowing to a height of 3 to 4 inches. Applications must be made before seedhead emergence. Suppression can be extended to 120 days with an application of Touchdown CT at 3 fl oz, followed in 45 days with an application at 1.5 to 3 fl oz. Do not make more than 2 applications per year.

### **Tank Mix with Oust XP – Actively Growing Bahiagrass**

Touchdown CT can be tank mixed with Oust XP for residual control. One to 2 weeks following an initial spring mowing, apply 4 fl oz. of Touchdown CT with 0.25 oz of Oust XP. Do not make more than one application per year.

**Bahiagrass Seedhead and Vegetative Suppression** - Touchdown CT, at 4.3 fl oz in 10 to 25 gallons of spray solution per acre, may be used to suppress vegetative growth and inhibit seedhead formation of actively growing bahiagrass for approximately 45 days. Make applications 1 to 2 weeks after green-up or after mowing to a height of 3-4 inches. Applications must be made before seedhead emergence. Suppression can be extended to 120 days with an application of Touchdown CT at 2.9 fl oz, followed in 45 days with an application at 1.4 to 2.8 fl oz. Do not make more than 2 applications per year.

**Annual Grass Suppression in Rough Turf** - Touchdown CT, at 2.9 to 3.6 fl oz in 10 to 40 gallons of spray solution per acre, may be used to suppress growth of some annual grasses (such as annual ryegrass, wild barley, and wild oats) growing in coarse turf on roadsides or other industrial areas. Make applications when annual grasses are actively growing and before seedheads are in the boot stage. Treatments after seedhead emergence may cause injury to desired grasses.

#### **Renovation; Seed or Sod Production**

Touchdown CT may be used to renovate turf in any areas described in **NONAGRICULTURAL USE AREAS**.

Touchdown CT controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm season grasses such as bermudagrass, summer or fall applications provide the best control where existing vegetation is growing under mowed turfgrass management. Apply Touchdown CT after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

#### **Use Precautions and Restrictions for Turfgrass Uses**

- Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application.
- Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring, or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.
- Desirable turfgrasses may be planted following the above procedures. Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

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- Application of rates greater than 12 fl oz/A of Touchdown CT may result in injury or delayed green-up in highly maintained areas, such as golf courses and lawns.
- Oust XP tank mixes should not be used in highly maintained turfgrass.
- Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

## **ROADSIDES**

For specific use rates, refer to **WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED** section.

Touchdown CT may be used on road shoulders, medians, and landscape areas. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

Touchdown CT may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

Touchdown CT may be used as a spot treatment to control unwanted vegetation growing along roadsides.

Touchdown CT may be tank mixed with the following products for shoulder, guardrail, spot, and bare ground treatments:

Banvel	Escort	Pendulum	Sahara	Telar
Diuron	Krovar	Princep	Simazine	Vanquish
Endurance	Oust XP	Ronstar	Surflan	2,4-D

## **OTHER NONAGRICULTURAL USE AREAS; INDUSTRIAL SITES; PARKS; RAILROADS; RESIDENTIAL AND RECREATIONAL**

Touchdown CT may be used in industrial sites, parks, railroads and residential and recreational areas. It may be applied with any application equipment described in this label. Touchdown CT may be used to trim-and-edge around objects in nonagricultural use sites, for spot treatment of unwanted vegetation, and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. Touchdown CT may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

### **Nonagricultural Use Areas and Industrial Sites**

Repeated applications of Touchdown CT may be used, as weeds emerge, to maintain bare ground.



### Tank Mixtures for Nonagricultural Use Areas and Industrial Sites

Touchdown CT can be tank mixed with the following herbicides for control of emerged annual weeds and control or partial control of perennial weeds, woody brush, and trees.

Arsenal	Karmex	Sahara®
Banvel	Krovar®	Simazine
Barricade®	Pendulum®	Surflan®
Diuron	Plateau®	Telar®
Endurance®	Princep®	Vanquish
Escort	Ronstar®	2,4-D

### Tank Mix with Oust XP - Perennial Weed Control

Touchdown CT, applied at 1.4 to 2.8 pt in a tank mix with Oust XP at 2 to 4 oz/A, will provide control or suppression of the following perennial weeds:

Bahiagrass	Fescue, tall
Bermudagrass	Johnsongrass
Broomsedge	Poor Joe
Dallisgrass	Quackgrass
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

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

### Railroads

For specific use rates, refer to **WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED** section.

Touchdown CT may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of Touchdown CT may be used, as weeds emerge, to maintain bare ground. Touchdown CT may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used. Touchdown CT may be tank mixed with the following products for ballast, shoulder, spot, bare ground, and crossing treatments.

Arsenal	Hyvar®	Spike®
Banvel	Krovar	Telar
Diuron	Oust XP	Vanquish
Escort	Sahara	2,4-D
Garlon™		

## Woody Brush and Tree Management

For specific use rates, refer to **WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED** section.

Touchdown CT may be used to control woody brush and tree weeds in any area described in **USE AREAS**.

Apply Touchdown CT as a broadcast spray, using boom-type or boomless nozzles.

Apply a 0.75 to 2% solution of Touchdown CT when using high-volume spray-to-wet applications. Use a 5 to 10% solution of Touchdown CT when using low volume directed sprays for spot treatment.

For weeds that have been mowed, grazed, or cut; allow regrowth to occur prior to treatment. Reduced results may occur when treating weeds heavily covered with dust.

## Tank Mixtures for Woody Brush Control on Railroad Rights-of Way

Touchdown CT can be tank mixed with the following products for enhanced control of woody brush and trees.

Arsenal  
Escort  
Garlon  
Tordon®

## Cut Stumps

Touchdown CT will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed. Apply Touchdown CT using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100% solution of Touchdown CT completely covering the freshly cut surface immediately after cutting. Application delay may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion. Avoid applications during peak sap flow in spring.

Alder  
Coyote Brush  
Dogwood  
Eucalyptus  
Hickory

Madrone  
Maple  
Oak  
Poplar  
Reed, giant

Salt-cedar  
Sweetgum  
Tan oak  
Willow

**Note:** Avoid making cut stump applications when roots of desirable adjacent trees may have grafted onto the roots of the cut stump.

### Tree Injections and Frill Applications

Touchdown CT may be used to control woody brush and trees by using injection and frill applications in any areas described in **NONAGRICULTURAL USE AREAS**.

Apply the equivalent of 1 ml of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). For best results, apply a 25 to 100% solution of Touchdown CT to a continuous frill or to evenly spaced cuts around the tree below all branches. In larger diameter trees, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings.

Avoid runoff in species that exude sap freely by making frills or cuts at an oblique angle, producing a cupping effect. Use Touchdown CT in an undiluted form. For best results, avoid applications during peak sap flow in the spring. Make applications during periods of active growth and after full leaf expansion.

Following is a partial list of species that can be controlled using this technique.

Black gum <sup>1</sup>	Oak
Dogwood <sup>1</sup>	Poplar
Hickory <sup>1</sup>	Sweetgum
Maple, red <sup>1</sup>	Sycamore

<sup>1</sup>Partial Control

**Note:** Avoid making injection or frill applications when roots of desirable adjacent trees may have grafted onto the roots of the cut stump.

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### WEEDS CONTROLLED, WOODY BRUSH AND TREES CONTROLLED

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Water volumes of 3 to 40 gallons per acre by ground equipment and 3 to 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.

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## WEEDS CONTROLLED

Table 1: Annual Weed Control – Touchdown CT Rates

Weed Species	Scientific Name	Touchdown CT Fluid Ounces Per Acre				
		Maximum Weed Height/Length				
		3"	6"	12"	18"	24"
Barley	<i>Hordeum vulgare</i>	12	12	12	12	17
Barnyardgrass	<i>Echinochloa crus-galli</i>	24	24	35		
Bittercress	<i>Cardamine</i> spp.	12	12	12	17	
Bluegrass, annual	<i>Poa annua</i>	12	12	12		
Bluegrass, bulbous	<i>Poa bulbosa</i>	12	12	12		
Brome, downy <sup>1</sup>	<i>Bromus tectorum</i>	12	12	17		
Brome, Japanese	<i>Bromus japonicus</i>	12	12	17	24	24
Buckwheat, wild <sup>2</sup>	<i>Polygonum convolvulus</i>	24				
Buffalobur	<i>Solanum rostratum</i>	24	35	35		
Buttercup <sup>3</sup>	<i>Ranunculus</i> spp.	12	12	12	17	
Carolina geranium <sup>4</sup>	<i>Geranium carolinianum</i>	24	35			
Carpetweed	<i>Mullugo verticillata</i>	17	17	24		
Cheat	<i>Bromus secalinus</i>	12	12	17	17	
Cheatgrass	<i>Bromus tectorum</i>	12	12	17	17	
Chickweed, common	<i>Stellaria media</i>	17	17	17	24	
Chickweed, mouseear	<i>Cerastium vulgatum</i>	12	12	17	17	
Cocklebur, common	<i>Xanthium strumarium</i>	12	12	12	17	24
Coreopsis, plains	<i>Coreopsis tinctoria</i>	17	17	24	35	
Corn <sup>5</sup>	<i>Zea mays</i>	12	12	17	24	24
Crabgrass <sup>6</sup>	<i>Digitaria</i> spp.	12	17	24		
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	12	24	48		
Cutleaf eveningprimrose <sup>4</sup>	<i>Oenothera laciniata</i>	24	35			
Deadnettle, purple	<i>Lamium purpureum</i>	24	24	35		
Devil's-claw (unicorn plant)	<i>Proboscidea louisianica</i>	17	24			
Dwarf dandelion	<i>Krigia cespitosa</i>	12	12	12	12	

Weed Species	Scientific Name	Touchdown CT Fluid Ounces Per Acre				
		Maximum Weed Height/Length				
		3"	6"	12"	18"	24"
Fall panicum	<i>Panicum dichotomiflorum</i>	12	24	35		
Falsedandelion	<i>Pyrrhopappus carolinianus</i>	17	17	17	17	
Falseflax, smallseed	<i>Camelina microcarpa</i>	12	12	12		
Fiddleneck	<i>Amsinckia</i> spp.	17	17	35		
Filaree	<i>Erodium</i> spp.	24	24	35		
Fleabane, annual	<i>Erigeron annuus</i>	24	24	35		
Fleabane, hairy	<i>Conyza bonariensis</i>	24	24	35		
Fleabane, rough	<i>Erigeron strigosus</i>	17	17	24		
Florida pusley	<i>Richardia scabra</i>	24	35			
Foxtails	<i>Setaria</i> spp.	12	12	17	24	
Goatgrass, jointed	<i>Aegilops cylindrica</i>	12	12	17		
Goosegrass	<i>Eleusine indica</i>	17	24	35		
Grain sorghum (milo)	<i>Sorghum bicolor</i>	12	12	17	24	
Groundcherry	<i>Physalis</i> spp.	17	24			
Groundsel, common	<i>Senecio vulgaris</i>	17	17	24		
Hemp sesbania	<i>Sesbania exaltata</i>	17	29	35		
Henbit <sup>4</sup>	<i>Lamium amplexicaule</i>	24	24	35		
Horseweed/Marestail	<i>Conyza canadensis</i>	17	17	24	35	
Jimsonweed	<i>Datura stramonium</i>	24	24	24	35	
Johnsongrass, seedling	<i>Sorghum halepense</i>	12	12	17	24	35
Knotweed	<i>Polygonum aviculare</i>	24	24	35		
Kochia <sup>3</sup>	<i>Kochia scoparia</i>	17	17	24		
Lambsquarters, common	<i>Chenopodium album</i>	17	24	35	35	
Lettuce, prickly	<i>Lactuca serriola</i>	17	17	24		
Little barley	<i>Hordeum pussillum</i>	12	12	17		
London rocket	<i>Sisymbrium irio</i>	12	12	24	24	24
Mayweed	<i>Anthemis cotula</i>	17	24	35	35	
Morningglory <sup>6,7</sup>	<i>Ipomoea</i> spp.	24	35			

Weed Species	Scientific Name	Touchdown CT Fluid Ounces Per Acre				
		Maximum Weed Height/Length				
		3"	6"	12"	18"	24"
Mustard, blue	<i>Chorispora tenella</i>	12	12	17	24	
Mustard, tansy	<i>Descurainia pinnata</i>	12	12	17	24	
Mustard, tumble	<i>Sisymbrium altissimum</i>	12	12	17	24	
Mustard, wild	<i>Brassica kaber</i>	12	12	17	24	
Nightshade, black	<i>Solanum nigrum</i>	17	24	35		
Nightshade, hairy	<i>Solanum sarrachoides</i> <i>Sendtner</i>	17	24	35		
Oats	<i>Avena sativa</i>	12	17	24	24	
Oats, wild	<i>Avena fatua</i>	12	17	24	24	
Panicum, Texas	<i>Panicum texanum</i>	12	12	24	35	35
Pennycress, field	<i>Thlaspi arvense</i>	12	12	17		
Pigweed	<i>Amaranthus</i> spp.	17	17	17	24	29
Prickly sida (Teaweed) <sup>7</sup>	<i>Sida spinosa</i>	24	35			
Puncturevine	<i>Tribulus terrestris</i>	24	35			
Purslane, common	<i>Portulaca oleracea</i>	35	35			
Rabbitsfootgrass	<i>Polypogon</i> <i>monspeliensis</i>	24	24			
Ragweed, common	<i>Ambrosia artemisiifolia</i>	17	17	24	35	
Ragweed, giant	<i>Ambrosia trifida</i>	17	17	24	35	
Rockpurslane Redmaids	<i>Calandrinia</i> spp.	24	24			
Rye	<i>Secale cereale</i>	12	12	24	24	35
Ryegrass, Italian	<i>Lolium multiflorum</i>	24	24	35		
Sandbur, field	<i>Cenchrus incertus</i>	12	12	17		
Sandbur, southern	<i>Cenchrus echinatus</i>	12	12	17		
Shattercane	<i>Sorghum bicolor</i>	12	12	17	24	
Shepherdspurse	<i>Capsella bursa-pastoris</i>	12	12	17		
Smartweed (ladythumb)	<i>Polygonum persicaria</i>	24	24	35		
Smartweed, Pennsylvania	<i>Polygonum</i> <i>pennsylvanicum</i>	24	24	35		
Sowthistle, annual	<i>Sonchus oleraceus</i>	24	24	35		
Speedwell, purslane	<i>Veronica peregrine</i>	12	12	12		

Weed Species	Scientific Name	Touchdown CT Fluid Ounces Per Acre				
		Maximum Weed Height/Length				
		3"	6"	12"	18"	24"
Sprangletop	<i>Leptochloa</i> spp.	12	12	17	24	
Spurge, prostrate	<i>Euphorbia</i> spp.	17	17	24		
Spurge, spotted	<i>Euphorbia maculata</i>	17	17	24		
Spurry, umbrella	<i>Holosteum umbellatum</i>	17	17			
Stinkgrass	<i>Eragrostis cilianensis</i>	17	17	17		
Sunflower, common	<i>Helianthus annuus</i>	12	12	12	17	
Thistle, Russian	<i>Salsola iberica</i>	24	24	35		
Velvetleaf	<i>Abutilon theophrasti</i>	24	24	35		
Virginia pepperweed	<i>Lepidium virginicum</i>	17	17	17	17	
Waterhemp	<i>Amaranthus</i> spp.	24	24	35		
Wheat	<i>Triticum aestivum</i>	12	12	24	35	
Wild-proso millet	<i>Panicum miliaceum</i>	17	17	24	35	
Witchgrass	<i>Panicum capillare</i>	17	17	17		
Woolly cupgrass	<i>Eriochloa villosa</i>	17	17	24		
Yellow rocket	<i>Barbarea vulgaris</i>	17	17	17	24	

<sup>1</sup>In no-till systems, use 17 oz./A.

<sup>2</sup>Maximum runner length. For control of wild buckwheat >3" in runner length, use sequential applications of 24 oz./A.

<sup>3</sup>Control will be reduced at the button stage.

<sup>4</sup>When the predominant weed species include Carolina geranium, cutleaf eveningprimrose, and henbit that are less than 6 inches tall, Gramoxone Inteon should be considered as an alternative.

<sup>5</sup>Will not control glyphosate-tolerant volunteer corn.

<sup>6</sup>Plant diameter.

<sup>7</sup>Multiple applications may be required.

Touchdown CT will not control glyphosate-resistant weed biotypes. Glyphosate-resistant biotypes can be controlled by timely application of Gramoxone Inteon plus either 2,4-D and/or a PSI herbicide prior to planting.

**Table 2: Annual Weed Control – Touchdown CT Rates in a Tank Mix with 0.25 lbs. a.i./A of Dicamba or 0.5 lbs. a.i./A of 2,4-D**

Weed Species	Scientific Name	Maximum Height/Length	Touchdown CT Fluid Ounce Per Acre
Kochia (dicamba only)	<i>Kochia scoparia</i>	6"	12-17
Lettuce, prickly	<i>Lactuca serriola</i>		
Morningglory	<i>Ipomoea</i> spp.		
Ragweed, common	<i>Ambrosia artemisiifolia</i>		
Ragweed, giant	<i>Ambrosia trifida</i>		
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>		
Velvetleaf	<i>Abutilon theophrasti</i>		
Cocklebur, common	<i>Xanthium strumarium</i>	12"	
Fleabane, rough	<i>Erigeron strigosus</i>		
Horseweed/Marestail*	<i>Conyza canadensis</i>		
Kochia	<i>Kochia scoparia</i>		
Lambsquarters, common	<i>Chenopodium album</i>		
Pigweed	<i>Amaranthus</i> spp.		
Sunflower, common	<i>Helianthus annuus</i>		
Thistle, Russian	<i>Salsola iberica</i>		

Read and follow dicamba and 2,4-D labels

\*Glyphosate-resistant biotypes less than 3 inches tall can be controlled by Gramoxone Inteon plus either 2,4-D or a triazine-based herbicide.



**Table 3: Perennial Weed Control and Weed Management – Touchdown CT Rates Used Alone or in Tank Mix with 0.25 lbs. a.i./A of Dicamba or 0.5 lbs. a.i./A of 2,4-D**

Weed Species	Scientific Name	Spot Spray % v/v	Quarts Per Acre	Tank Mix with 2,4-D or Dicamba	Application Timing and Remarks
Alfalfa	<i>Medicago sativa</i>	1.5	1-1.5		At 6-8 inch stage or more after final cutting in fall. Deep till 7 days after treatment.
Artichoke, Jerusalem	<i>Helianthus tuberosus</i>	1.5	2.2-3.6		At or after flowering.
Barley, foxtail	<i>Hordeum jubatum</i>	1.5	0.75-1.6		4 to 6 inch stage.
Bentgrass	<i>Agrostis</i> spp.	1.5	1.1		Should have at least 3 inches of growth. Ensure entire crown area has resumed growth prior to fall application. Till 7 to 10 days after application.
Bermudagrass	<i>Cynodon dactylon</i>	1.5	2.2-3.6		Seedheads present; may require retreatment.
Bindweed, field	<i>Convolvulus arvensis</i>	1.5	2.7-3.6		At or after flowering, in late summer for best results.
			1.4	Yes	At or after flowering for control, multiple applications may be required. Do not apply by air.
			0.7-1.4	Yes	For suppression on irrigated agricultural land, by ground equipment only. Apply in fall or following harvest on runners 12 inches or more in length.
Bindweed, field (continued)	<i>Convolvulus arvensis</i>		0.4	Yes	For suppression by ground or aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6-18 inches in length.
Bluegrass, Kentucky	<i>Poa pratensis</i>	1.5	0.75-1.4		Apply at boot to early seedhead stage.
			0.75-1.1		For partial control in pasture or hay crop renovation, apply when plants are 4-12 inches.
Blueweed, Texas	<i>Helianthus ciliaris</i>	1.5	2.7-3.6		Apply at or beyond bloom. For best results, apply in late summer or fall, but before a killing frost.
Brackenfern	<i>Pteridium aquilinum</i>	0.7-1.1	2.2-3.3		Fronds fully expanded and at least 18 inches long.
Bromegrass, smooth	<i>Bromus inermis</i>	1.5	0.75-1.6		Apply when most plants are at the boot to early seedhead stage.

Weed Species	Scientific Name	Spot Spray % v/v	Quarts Per Acre	Tank Mix with 2,4-D or Dicamba	Application Timing and Remarks
			0.75-1.1		For partial control in pasture or hay crop renovation, apply to actively growing plants 4-12 inches in height.
Bursage, woollyleaf	<i>Ambrosia grayi</i>	1.5	1.4	Yes	Apply to actively growing plants at or beyond flowering.
			0.75	Yes	Apply to actively growing plants at or beyond flowering.
Clover, red	<i>Trifolium pratense</i>	1.5	2.2-3.6		Early head to early bud. May require retreatment.
Clover, white	<i>Trifolium repens</i>				
Dandelion	<i>Taraxacum officinale</i>	1.5	2.2-3.6		Early bud.
			0.4	Yes	Early bud.
Dock, curly	<i>Rumex crispus</i>	1.5	2.2-3.6		Early bud.
			0.4	Yes	Early bud.
Dogbane, hemp	<i>Apocynum cannabinum</i>	1.5	3.3		Late bud to flower. May require retreatment.
			0.4	Yes	Actively growing at 6-12 inch stage for suppression.
Fescue	<i>Festuca</i> spp.	1.5	2.2-3.6		Apply when most plants have reached the early head stage.
Fescue, tall	<i>Festuca arundinacea</i>	1.5	0.75-2.2		Apply 2.2 qts./A when most plants have reached boot to early seedhead stage. Fall applications only: Apply 0.75 qt./A when plants are 6-12 inches in height. A spring applied sequential treatment of 0.75 pt./A will improve long term control.
Horsenettle	<i>Solanum carolinense</i>	1.5	2.2-3.6		Early bud stage
Horseradish	<i>Armoracia rusticana</i>	1.5	3.3		Apply when most plants have reached the late bud to early flower stage in late summer or fall.
Johnsongrass	<i>Sorghum halepense</i>	0.7	0.4-2.2		Apply at boot to head stage and in the fall prior to frost. Use 0.7 to 1.4 qts./A for annual tillage systems. Use 1.4 to 2.2 qts./A on no-till acres. Allow 3-7 days before tillage.
			0.4		For burndown, apply when plants are 12 inches in height and allow 3 days before tillage.
Knapweed	<i>Centaurea</i> spp.	1.5	3.3		Apply in fall at late bud to flower stage.
Lespedeza	<i>Lespedeza</i> spp.	1.5	2.2-3.6		Apply when most plants have reached the early bud stage.

Weed Species	Scientific Name	Spot Spray % v/v	Quarts Per Acre	Tank Mix with 2,4-D or Dicamba	Application Timing and Remarks
Muhly, wirestem	<i>Muhlenbergia frondosa</i>	1.5	0.75-1.6		Use 0.75 to 1.6 qts./A in pasture, sod, or noncrop areas. Spray plants 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.
Mullein, common	<i>Verbascum thapsus</i>	1.5	2.2-3.6		Early bud.
Nightshade, silverleaf	<i>Solanum eleagnifolium</i>	1.5	1.6		Apply when 60% of plants have berries. Apply fall treatments before a killing frost.
Nutsedge, purple Nutsedge, yellow	<i>Cyperus rotundus</i> <i>Cyperus esculentus</i>	0.7-1.5	0.4-2.2		Apply 2.2 qts./A for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Sequential applications: 0.7-1.4 qts./A applied to plants in the 3-5 leaf stage or less than 6 inches tall. Repeat treatments at this stage for long term control. For partial control: apply 0.4-1.4 qts. per acre. Treat when plants have 3-5 leaves or less than 6 inches tall. Repeat treatments at this stage for long term control.
Orchardgrass	<i>Dactylis glomerata</i>	1.5	0.75-1.6		Apply 1.4 qts./A on plants at early boot to seedhead stage. For partial control in pasture or hay crop renovation, apply 0.75-1.1 qts./A. Apply to actively growing plants 4-12 inches in height. In orchardgrass sods rotated to no-till corn: Apply 0.75-1.1 qts. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be required for optimum results.

Weed Species	Scientific Name	Spot Spray % v/v	Quarts Per Acre	Tank Mix with 2,4-D or Dicamba	Application Timing and Remarks
Poison hemlock	<i>Conium maculatum</i>	1.0-1.5	--		Apply as a spray to wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Pokeweed, common	<i>Phytolacca americana</i>	1.5	1.1		Apply to actively growing plants up to 24 inches in height.
Quackgrass	<i>Agropyron repens</i>	1.5	0.75-2.2		Apply 0.75-2.2 qts./A in annual cropping systems, or in pastures and sods where deep tillage is used. Do not tank mix with a residual herbicide at the 0.75 qt. rate. Spray when quackgrass is 6-8 inches in height. Do not till between harvest and fall applications or in the fall or spring prior to spring application. Allow 3 or more days after application before tillage.
			1.6-2.2		Apply in pastures, sod, or noncrop areas where deep tillage will not follow the application. Spray when quackgrass is at least 8 inches in height.
Ryegrass, perennial	<i>Lolium perenne</i>	1.0	0.75-2.2		Apply 0.7-2.2 qts./A when most plants are in the boot to head stage or prior to frost. In noncrop or areas where no tillage is practiced, use 1.6-2.2 qts./A. Do not tank mix with residual herbicides when using the 0.75 qt./A per acre rate.
			0.4	Yes	Early bud, 12 inch stage.
Sowthistle, perennial	<i>Sonchus arvensis</i>	1.5	1.6-2.2		Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing, or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to application. Fall treatments must be applied before a killing frost. Allow 3 or more days before tillage.

Weed Species	Scientific Name	Spot Spray % v/v	Quarts Per Acre	Tank Mix with 2,4-D or Dicamba	Application Timing and Remarks
Thistle, Canada	<i>Cirsium arvense</i>	1.5	1.6-2.2		Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing, or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to application. Fall treatments must be applied before a killing frost. Allow 3 or more days before tillage. For fall applications or following mowing, allow a minimum of 6-8 inches rosette development.
			0.4-0.7	Yes	For suppression: Apply in late summer or fall after harvest, mowing, or tillage. Allow rosette regrowth to be a minimum of 6 inches in diameter before treating. Allow 3 or more days before tillage.
Timothy	<i>Phleum pratense</i>	1.5	1.6-2.2		Boot to head; wait 3 days before tillage
Velvetgrass	<i>Holcus spp.</i>	1.5	2.2-3.6		Early head stage.
Vetch	<i>Vicia spp.</i>	1.5	1.4-2.9		Boot to head.
Western wheatgrass, western	<i>Agropyron smithii</i>	1.5	2.6-2.2		Boot to head.

<sup>1</sup>Partial control.

## WOODY BRUSH AND TREES CONTROLLED

Apply Touchdown CT after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. In most areas, best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing, or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Reduced performance may result if fall treatments are made following a frost.

When plants are growing under stressed conditions, or where infestations are dense, Touchdown CT may be used at 3.6 to 7.6 qt/A or a 0.7 to 1.5% solution for spot spray clean-up.

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Table 4: Woody Brush and Trees Controlled

Weed	Rate (qt/A) <sup>1</sup>
Alder	2.2-2.9
Ash <sup>2</sup>	1.4-3.6
Aspen, quaking	1.4-3.6
Bearmat (Bearclover) <sup>2</sup>	1.4-3.6
Beech <sup>2</sup>	1.4-3.6
Birch	0.7-1.4
Blackberry	2.2-2.9
Blackgum	1.4-3.6
Bracken	1.4-3.6
Broom, French and Scotch	1.4-3.6
Buchwheat, California <sup>2</sup>	1.4-3.6
Cascara <sup>2</sup>	3.6
Catsclaw <sup>2</sup>	3.6
Ceanothus <sup>2</sup>	1.4-3.6
Chamise <sup>2</sup>	1.4-3.6
Cherry, bitter, black and pine	0.7-3.6
Cottonwood, eastern	1.4-3.6
Coyote brush	1.4-3.6
Cypress, swamp and bald	1.4-3.6
Deerwood	1.4-3.6
Dewberry	2.2-2.9
Dogwood <sup>2</sup>	1.4-3.6
Elderberry	0.7-1.4
Elm <sup>2</sup>	1.4-3.6
Eucalyptus, bluegum	1.4-3.6
Florida holly (Brazilian peppertree) <sup>2</sup>	1.4-3.6
Gallberry	1.4-3.6
Gorse <sup>2</sup>	1.4-3.6
Hackberry, western	1.4-3.6
Hasardia <sup>2</sup>	1.4-3.6
Hawthorn	0.7-3.6
Hazel	0.7-1.4
Hickory <sup>2</sup>	1.4-3.6
Honeysuckle	2.2-2.9
Hornbeam, American <sup>2</sup>	1.4-3.6
Huckleberry	1.4-3.6
Kudzu	2.9-3.6
Locust, black <sup>2</sup>	1.4-3.6
Madrone, resprouts <sup>2</sup>	3.6
Magnolia, sweetbay	1.4-3.6
Manzanita	1.4-3.6
Maple, red	1.4-3.6
Maple, sugar	3.6
Monkey flower <sup>2</sup>	1.4-3.6
Oak, black and white <sup>2</sup>	1.4-3.6
Oak, northern and pin	1.4-3.6
Oak, post	2.2-2.9
Oak, red	1.4-3.6
Oak, scrub <sup>2</sup>	1.4-3.6

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Weed	Rate (qt/A) <sup>1</sup>
Oak, southern red	0.7-3.6
Orange, osage	1.4-3.6
Persimmon <sup>2</sup>	1.4-3.6
Pine	1.4-3.6
Poison ivy	2.9-3.6
Poison oak	2.9-3.6
Poplar, yellow <sup>2</sup>	1.4-3.6
Prunus	1.4-3.6
Raspberry	2.2-2.9
Redbud, eastern	1.4-3.6
Redcedar, eastern	1.4-3.6
Rose, multiflora	0.7-1.4
Russian olive <sup>2</sup>	1.4-3.6
Sage brush, California	1.4-3.6
Sage, black	1.4-3.6
Sage, white <sup>2</sup>	1.4-3.6
Sago, black	1.4-3.6
Salmonberry	0.7-1.4
Saltbrush, Seamyrtle	1.4-3.6
Saltcedar <sup>2</sup>	1.4-3.6
Sassafras <sup>2</sup>	1.4-3.6
Sourwood <sup>2</sup>	1.4-3.6
Sumac (laurel <sup>2</sup> , poison, smooth, sugar bush, and winged <sup>2</sup> )	1.4-3.6
Sweetgum	0.7-3.6
Swordfern <sup>2</sup>	1.4-3.6
Tallowtree, Chinese	3.6
Tan oak resprouts <sup>2</sup>	3.6
Thimblebery	0.7-1.4
Tobacco tree <sup>2</sup>	1.4-3.6
Toyon	1.4-3.6
Trumpet creeper	0.7-3.6
Vine maple <sup>2</sup>	1.4-3.6
Virginia creeper	1.4-3.6
Waxmyrtle, southern <sup>2</sup>	1.4-3.6
Willow	2.2-2.9
Yerbesenta, California	1.4-3.6

<sup>1</sup>Or use a 2% solution for spot spray clean-up

<sup>2</sup>Partial control

## STORAGE AND DISPOSAL

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

### Pesticide Storage

Keep container closed to prevent spills and contamination.

## Pesticide Disposal

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

## Container Handling

Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available 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.

## CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

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This product is sold only for uses stated on its label. ~~This formulation is covered by U.S. Patent No. 5,468,718.~~

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For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.
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Manufactured for:  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, North Carolina 27419-8300

SCP 1212A-L1A 0809 [Bulk Booklet]

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Container Label  
(Bulk PSL)

Touchdown CT  
Herbicide

GROUP	9	HERBICIDE
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Nonselective Foliar Systemic Herbicide for Weed Control

Active Ingredient:

\*Glyphosate, N-(phosphonomethyl) glycine ..... 36.5%

Other Ingredients: ..... 63.5%

Total: ..... 100.0%

\*Contains 4.17 pounds of glyphosate acid in each gallon, in the potassium salt form.

KEEP OUT OF REACH OF CHILDREN.

## CAUTION

See additional precautionary statements and directions for use on label.

EPA Reg. No. 100-1212

EPA Est.

SCP 1212A-L2A 0809

\_\_\_\_ gallons  
Net Contents

830487

FIRST AID	
If in eyes	<ul style="list-style-type: none"><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 inhaled	<ul style="list-style-type: none"><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>
If on skin or clothing	<ul style="list-style-type: none"><li>• Take off contaminate 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 swallowed	<ul style="list-style-type: none"><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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident), Call <b>1-800-888-8372</b>	

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**PRECAUTIONARY STATEMENTS**

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**Hazards to Humans and Domestic Animals****CAUTION**

Causes moderate eye irritation. Harmful if inhaled. Avoid breathing spray mist. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

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## **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

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.

### **Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Socks and shoes

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

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

### **User Safety Recommendations**

#### **Users should:**

- Wash hands 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 when cleaning equipment or disposing of equipment wash waters.

## **Physical and Chemical Hazards**

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), aluminum, galvanized steel containers, or sprayer tanks. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas which may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

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

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

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 Syngenta Crop Protection, LLC 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.

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## **DIRECTIONS FOR USE**

To be used in accordance with directions for use in Touchdown CT label 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.

### **STORAGE AND DISPOSAL**

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

#### **Pesticide Storage**

Keep container closed to prevent spills and contamination.

#### **Pesticide Disposal**

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

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