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10182-429

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

SEP 14 1998

Becky Rhodes
Zeneca Agricultural Products
P.O. Bcx 15458
Wilmington, DE 19850-5458

Subject: TOUCHDOWN 5 Herbicide
Registration Number 10182-429
Your submissions dated April 20, August 12, and August
14, 1998

Dear Ms. Rhodes:

The label amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable, provided that you adhere to the following requirements:

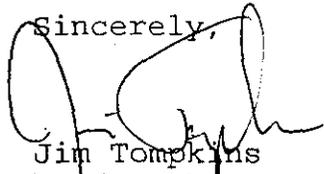
1. A developmental neurotoxicity study in rats (guideline no. 83-6) must be submitted within 3 years of the date of this letter. At one and two years after the date of this letter, a brief report on the progress of the study, which reports the phases of the project have been completed and informs the Agency of any delays encountered must be submitted.
2. You must make the following changes to your proposed label:
 - a. On pages 5 and 7, enclose the USER SAFETY RECOMMENDATIONS, AGRICULTURAL USE REQUIREMENTS, and NONAGRICULTURAL USE REQUIREMENTS in a box.
 - b. On page 9, in the second column of the TOUCHDOWN 5 RATE CONVERSION TABLE, change "OZS" to "FL. OZS".
 - c. On page 18, in the first sentence of the first paragraph, change "provided that use of the tankmix product is allowed" to "provided that the tankmix product label allows use of the product".
3. Submit one copy of your final printed labeling before you release the product for shipment.

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

A stamped copy of the label is enclosed for your records.

If you have any questions about this letter, please contact Tobi Colvin-Snyder of my staff at 703-305-7801.

Sincerely,



Jim Tompkins
Product Manager (25)
Herbicide Branch
Registration Division (7505C)

COMPLETE DIRECTIONS FOR USE

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

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

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

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

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

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

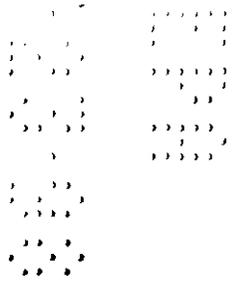


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WEEDS CONTROLLED

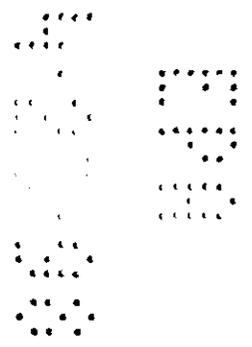
 North/ South Region Annual Weed Control - Table 1

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STORAGE AND DISPOSAL



STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

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

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

CALL ZENECA'S MEDICAL EMERGENCY INFORMATION NETWORK AT 1-800-327-8633 (1-800-F-A-S-T-M-E-D) FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE.

CALL CHEMTREC AT 1-800-424-9300 FOR A CHEMICAL EMERGENCY such as a spill, leak, fire, or accident.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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

PERSONAL PROTECTIVE EQUIPMENT

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

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

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

User Safety Recommendations

Users should:

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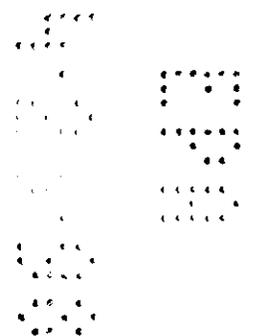
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ENVIRONMENTAL HAZARDS

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

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

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



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Page 7
TOUCHDOWN 5 Booklet
TOU429.RSA-041798

DIRECTIONS FOR USE

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

- Apply this product only as specified on the label.
- Do not apply this product through any type of irrigation system.
- Do not exceed a total of 6 1/4 pints of TOUCHDOWN 5 per acre per year.

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 4 12 hours.

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

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

NONAGRICULTURAL USE REQUIREMENTS

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

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

GENERAL INFORMATION

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

- berries, fruits, nuts, vegetables, and vines specified on this label;
- conservation compliance;
- chemical fallow-ecofallow systems;
- corn;
- fallowland and postharvest;
- soybeans;
- bearing orange, grapefruit, lemon, lime, citron, kumquat, tangelo, and tangerine groves;
- any variety of bearing table, wine, or raisin grapes;
- bearing almond, beechnut, Brazil nut, butternut, cashew, chestnut, chinquapin, filbert, hickory nut, macadamia nut, pecan, and walnut groves;
- bearing apricot, cherry, nectarine, peach, plum, plumcot, and prune;
- nonbearing groves, orchards, or vineyards up to 1 year prior to harvest; and
- certain noncrop areas around the farm specified on this label

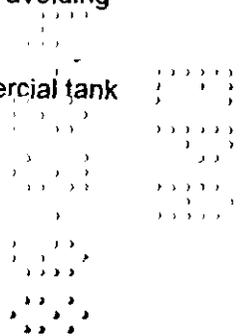
TOUCHDOWN 5 is formulated as a liquid concentrate which contains 5 pounds active ingredient per gallon.

~~Heavy rainfall or irrigation shortly after application may require retreatment.~~

~~NOTE: Stainless steel, plastic-lined steel, plastic or fiberglass containers are acceptable for mixing and storing TOUCHDOWN 5. TOUCHDOWN 5 should not be mixed or stored in galvanized steel or unlined steel containers. TOUCHDOWN 5 is not compatible with carbon steel and neoprene or butyl rubber.~~

GENERAL USE PRECAUTIONS

- TOUCHDOWN 5 requires actively growing green plant tissue to function. Application to drought-stressed weeds or weeds with little green foliage (i.e., mowed or cut weeds), may result in reduced weed control.
- TOUCHDOWN 5 does not provide residual control of weeds. Weeds emerging after application will require retreatment.
- ~~Heavy rainfall or irrigation shortly after application may require retreatment.~~
- Do not till or mow within 3 days following application.
- DO NOT spray if conditions of thermal inversion exist, or if wind direction and speed may cause spray to drift onto adjacent nontarget areas. Drift minimization is the responsibility of the applicator. Consult with local and State agricultural authorities for information regarding avoiding or minimizing spray drift.
- It is recommended that the spray system be thoroughly cleaned with water and a commercial tank cleaner after each use.



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- Stainless steel, plastic-lined steel, plastic or fiberglass containers are acceptable for mixing and storing TOUCHDOWN 5. TOUCHDOWN 5 should not be mixed or stored in galvanized steel or unlined steel containers. TOUCHDOWN 5 is not compatible with carbon steel and neoprene or butyl rubber.
- Rotational crops Any crop not listed on this label may be planted back into TOUCHDOWN 5 treated areas 35 days after application.
- Do not exceed a total of 6 1/2 6.4 pints of TOUCHDOWN 5 per acre per year.
- Do not graze or harvest treated cover crops for feed.

APPLICATION DIRECTIONS

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

Timing

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

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

Rates

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

TOUCHDOWN 5 RATE CONVERSION TABLE			
LBS A/A	OZS/A	PINTS/A	ACRES/ GALLON
0.5	12.8	0.8	10
0.75	19.2	1.2	6.7
1.0	25.6	1.6	5
1.5	38.4	2.4	3.3
2.0	51.2	3.2	2.5
3.0	76.8	4.8	1.7
4.0	102.4	6.4	1.25

Tankmixes with Residual Herbicides

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

For Control of Annual Weeds with a Tankmix: Apply TOUCHDOWN 5 at 1½ pints for the control of annual weeds that are less than 12 inches tall and actively growing. When annual weeds are taller than 12 inches or under stress, use 2½ pints of TOUCHDOWN 5 herbicide.

For Control of Perennial Weeds with a Tankmix: Apply TOUCHDOWN 5 at 2½ to 6½ pints for the control or suppression of perennial weeds. Refer to the WEEDS CONTROLLED section for application rates and timing for specific perennial weeds. Perennial weeds may require multiple applications for control. If multiple applications are required, then no more than 6½ pints of TOUCHDOWN 5 should be applied per year.

Add an agriculturally approved nonionic surfactant/wetting agent when tank mixing TOUCHDOWN 5 with residual herbicides. See the SPRAY ADDITIVES section of this label for recommendations.

In general, TOUCHDOWN 5, should be tank mixed as follows:

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

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

SPRAY ADDITIVES**Surfactants/Wetting Agents**

A nonionic surfactant (NIS) or wetting agent (approved for use on growing crops) may be used at levels up to 0.25% v/v (1 quart TOUCHDOWN 5/100 gallons) of finished spray volumes. All nonionic surfactants or wetting agents should contain at least 75% active ingredient.

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

Control of annual and perennial weeds with TOUCHDOWN 5 may be improved by adding dry ammonium sulfate at 1 - 2% by weight or 8.5 - 17 pounds per 100 gallons of water. Liquid formulations of AMS may be used at an equivalent rate. Use ammonium sulfate AMS in conservation compliance programs; in chemical fallow-ecofallow systems; in noncrop areas; in nonbearing crops; in citrus, berries, fruits, nuts, vegetables, and vines specified on this label; and for preplant/preemergence applications. Do not reduce use rates of TOUCHDOWN 5 when using AMS ammonium sulfate.

TANKMIXES WITH RESIDUAL HERBICIDES

Refer to crop sections for recommended tankmixes. Tankmixes of TOUCHDOWN 5 with other pesticides, fertilizers, or any other additives except as specified on this label or other approved ZENECA supplemental labeling may result in tankmix incompatibility or unsatisfactory performance. It is recommended that the compatibility of any tankmix 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 ammonium sulfate (if used).
4. Add dry formulations (WP, DF, etc.) to tank.
5. Add liquid formulations (SC, EC, L, etc.) to tank.
6. Add TOUCHDOWN 5.
7. Add nonionic surfactant/wetting agent (if used).
8. Fill remainder of spray tank.

APPLICATION EQUIPMENT & TECHNIQUES

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

Broadcast Applications

Ground

Applications should be made in 3 to 30 gallons of water per acre.

Apply TOUCHDOWN 5 to actively growing weeds at the broadcast rates indicated in the WEEDS CONTROLLED section. Applications should be made in 10 to 30 gallons of water per acre with conventional spray equipment, or in 3 to 10 gallons per acre with low volume equipment and in chemical fallow/ecofallow systems. Use higher volumes if weed foliage is dense.

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When foliage is dense, spray volume should be increased to ensure coverage of the target weeds. Flat-fan nozzles will result in the most effective application of TOUCHDOWN 5. Flat fans should be used at 30 to 50 psi. Spray boom and nozzle heights must be adjusted to provide coverage of target weed. Flood nozzles may result in reduced weed control due to inadequate coverage.

Air

Apply TOUCHDOWN 5 to actively growing weeds by air equipment in a minimum of 3 gallons of water per acre. Refer to the WEEDS CONTROLLED Section for rates and timing of application.

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

All aerial equipment must be properly maintained and washed to remove product residues after use.

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 excessive 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.

Drift control additives may be used with TOUCHDOWN 5. Read and follow the manufacturer's directions for use.

Do not make aerial applications during temperature inversions. 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 near the ground surface.

For best results, each specific aerial application vehicle used should be quantifiably pattern tested for aerial application of TOUCHDOWN 5 herbicide initially and every two years 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

Do not apply when winds exceed 15 MPH or there are wind gusts as this could cause drift to adjacent nontarget vegetation.

Spot Treatments

For annual weeds less than 6 inches, use a 0.75% v/v solution (volume TOUCHDOWN 5/ volume total solution) (3 quarts TOUCHDOWN 5/100 gallons of finished spray solution). For annual weeds over 6 inches, use a 1.25% v/v solution. Use a 2% 1 to 2% v/v solution for most perennials (see TABLE 4 for specific rates and timing), except as noted in the SPOT TREATMENT OF HARD TO CONTROL WEEDS table. When using motorized spot spray equipment (rider bar), use a 3% v/v 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.

SPOT TREATMENT OF HARD TO CONTROL WEEDS

WEED SPECIES	SCIENTIFIC NAMES	HANDGUN % SOLUTION	APPLICATION TIMING AND REMARKS
Balsamapple*	<i>Momordica charantia</i>	1-1.25%	Actively growing
Guineagrass*	<i>Panicum maximum</i>	1-1.25%	Actively growing, 7-leaf stage
Lantana-largeleaf*	<i>Lantana camara</i>	1-1.25%	Actively growing, at or beyond bloom
Pergrass*	<i>Bracharia mutica</i>	1.5-2%	Actively growing, seedhead
Pampasgrass*	<i>Erianthus reвенnae</i>	1.5-2%	Actively growing, at or beyond boot
Sweet Potato, Wild*	<i>Ipomoea pandurata</i>	2%	Actively growing, at or beyond bloom
Torpedograss*	<i>Panicum repens</i>	1.75-2%	Actively growing at or beyond seedhead
Vaseygrass*	<i>Paspalum urvillei</i>	1.75-2%	Actively growing, at seedhead

* Repeat treatment may be required to provide control.

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

TOUCHDOWN 5 Herbicide Spot Spray Dilution Table

Solution Strength	To Make This Volume				
	1 gallon	2-gallons	10 gallons	25 gallons	100 gallons
0.75%	1 fl oz	2 fl ozs	9 fl ozs 0.6 pints	1½ pints	3 quarts
1%	1½ fl ozs	2½ fl ozs	12½ fl ozs 0.8 pints	2 pints	1 gallon
1.25%	1¾ fl ozs	3½ fl ozs	1 pint	2½ pints	5 quarts
1.5%	2 fl ozs	3¾ fl ozs	1¼ pints	3 pints	6 quarts
1.75%	2¼ fl ozs	4½ fl ozs	1½ pints	3½ pints	7 quarts
2%	2½ fl ozs	5½ fl ozs	1½ pints	4 pints	2 gallons
3%	4 fl ozs	8 fl ozs	2½ pints	6 pints	3 gallons

½ fl oz = 2 teaspoons 8 fl ozs or ½ pint = 1 cup
 ¼ fl oz = 1 tablespoon 16 fl ozs = 1 pint
 1 fl oz = 2 tablespoons 1 gallon = 8 pints

Wiper Application

TOUCHDOWN 5 may be applied using a wiper or "wick" applicator for selective control or suppression of annual and perennial weeds which become taller than the crop or desirable vegetation. Mix 1 quart of TOUCHDOWN 5 in 1 gallon of water. Precautions should be taken to avoid contact with crops or desirable vegetation. Equipment should be operated at speeds of 5 mph or less. Use slower speeds where weeds are dense. For improved control, make two applications in opposite directions. Do not use wiper applications in corn or in bearing grape vineyards.

CROPS

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

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

**BEARING AND NONBEARING CROPS
BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES**

TOUCHDOWN 5 can be used to control annual and perennial weeds in the following bearing crops:
TOUCHDOWN 5 may be used on both bearing and nonbearing crops listed below.

BEARING CROPS

Almond
Apricot
Bechnut
Brazil nut
Butternut
Calamondin
Cashew
Cherry (sweet, sour, tart)
Chestnut
Chinquapin
Chironja
Citron
Citrus Citron
Filbert (Hazelnut)
Grapefruit
Grapes (all)
Hickory nut
Kumquat
Lemon
Lime
Macadamia
Mandarin
Nectarine
Orange (all)
Peach
Pecan
Plum (*Prunus domestica*, *Prunum spp.*)
Plum, Chickasaw
Plum, Damson
Plum, Japanese
Plum (all)
Plumcot
Prune (fresh)
Pummelo
Satsuma Mandarin
Tangelo
Tangerine
Tanger
Walnut (Black, English)

NONBEARING CROPS

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

Acerola (West Indian Cherry)	Jaboticaba
Apple	Jackfruit
Artichoke	Jojoba
Asparagus	Kiwi
Atemoya	Loganberry
Avocado	Longan
Banana	Loquat
Blackberry	Lychee
Blueberry	Mango
Boysenberry	Mayhaw
Breadfruit	Osageberry
Canistel	Olive
Carambola	Papaya
Cherimoya	Passion Fruit
Cocoa Bean	Pear
Coconut	Persimmon
Coffee	Pineapple
Crabapple	Pistachio
Cranberry	Plantain
Currant	Pomegranate
Date	Quince
Dewberry	Raspberry (black, red)
Elderberry	Sapodilla
Fig	Sapote
Genip	Soursop
Ginseng	Sugar Apple
Gooseberry	Tamarind
Guava	Tea
Huckleberry	Youngberry

TOUCHDOWN 5 can be used during site preparation prior to planting and up to 1 year prior to harvest.

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APPLICATION DIRECTIONS FOR BEARING CITRUS, GRAPES, NUTS, STONE FRUIT, AND NONBEARING CROPS

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

General Use

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

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

Multiple applications may be necessary to control certain perennial weeds, and weeds originating from underground parts (rhizomes, stolons, tubers) that are initially untreated. ~~but Do not apply more than 6½ 6.4 pints of TOUCHDOWN 5 per acre per year. TOUCHDOWN 5 does not provide residual weed control, and as such, weeds emerging after application will not be controlled.~~ For residual weed control, tank mix TOUCHDOWN 5 with residual herbicides as prescribed in the **TANK MIXTURES FOR BEARING CITRUS, GRAPES, NUTS, STONE FRUIT, AND NONBEARING CROPS BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES** section, or make multiple applications.

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GENERAL USE PRECAUTIONS FOR BEARING CITRUS, GRAPES, NUTS, STONE FRUIT, AND NONBEARING CROPS BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES

- Do not allow the spray, spray drift, or mist to contact foliage, fruit, shoots, branches, canes, suckers, open wounds or ~~green bark, or other green parts of trees and vines crops~~. Contact with any ~~tree or vine crop~~ part other than mature brown woody bark can result in severe crop injury.
- Avoid contact with stumps as injury to adjacent trees may occur from root grafting.
- For PEACHES grown in the ~~south and southeast regions: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee~~, apply TOUCHDOWN 5 with a shielded applicator which prevents contact with foliage, suckers, or bark of trees. Apply no later than 90 days after first bloom to avoid severe damage. Avoid application to peach trees with recent mechanical injury or pruning wounds. Apply only near trees which have been planted in the orchard for two or more years. SEVERE INJURY WILL OCCUR IF ANY PORTION OF THE PEACH TREE IS CONTACTED WITH SPRAY OR SPRAY DRIFT.
- For APRICOTS, NECTARINES, PEACHES, PLUMS and PRUNES grown in ~~Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah, and Washington~~, any application equipment listed for these crops may be used.
- For APRICOTS, NECTARINES, PEACHES, PLUMS, and PRUNES grown in all other states not previously listed, use only wiper/wick application equipment.
- For GRAPES grown in the *Great Lakes and Northeast regions*, apply TOUCHDOWN 5 prior to the end of bloom stage to avoid injury, or apply with shielded equipment.
- For COFFEE and BANANA, delay application 3 months after transplanting to allow the new plants to become established.
- Allow at least 13 days from the last application to harvest of citrus and or stone fruit.
- Allow at least 14 days from the last application to harvest of grapes.
- Allow at least 20 days from the last application to harvest of nuts.

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TANK MIXTURES WITH RESIDUAL HERBICIDES FOR BEARING CITRUS, GRAPES, NUTS, STONE FRUIT, AND NONBEARING CROPS BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES

TOUCHDOWN 5 can be tank mixed with the following herbicides listed in the following table for control or suppression of emerged annual and perennial weeds provided that use of the tankmix product is allowed on the crop being treated. The following residual herbicides provide preemergence control of weeds listed on the individual product labels. The "X" denotes in which bearing crops certain tankmixes can be used. All tankmixes listed can be used in the nonbearing crops listed on this label. Apply TOUCHDOWN 5 at 1.2 to 6.4 pints/A 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, use rates at the higher end of the rate range. Refer to the Tankmixes with Residual Herbicides section of the label for TOUCHDOWN 5 rates and timing information.

	CITRUS (ALL)	GRAPEFRUIT LEMONS ORANGES (ALL)	GRAPES (ALL)	NUTS- (ALL)	PEACHES	STONE- FRUIT (ALL)
TOUCHDOWN 5 plus:-						
DEVIRINOL® 50-DF herbicide	X	X	X	X	X	X
Drex® 4L herbicide	X	X	X	X		
Goal® 1.6E herbicide			X	X	X	X
Karmex® DF herbicide	X	X	X	X	X	
Krovar® (I or II) herbicide	X	X		X		
Prowl or Prowl® 3-EG herbicide	X	X		X		
Simazine (4L, 80W, or Galiber®) herbicide		X	X			
Sim-Trol® 4L	X	X		X		
Solicam® DF	X	X	X	X	X	X
Surflan (AS or 75W)	X	X		X	X	X
Simazine (4L, 80W, or Galiber 90) plus Surflan (AS or 75W)		X	X			
Goal 1.6E plus Surflan (AS or 75W)				X	X	X
Goal 1.6E plus Simazine (80W, 4L, or Galiber 90)			X			
Goal 1.6E plus Surflan (AS or 75W) plus Simazine (80W, 4L, or Galiber 90)				X	X	X

DEVIRINOL®
Drex®
Goal®
Karmex®
Kerb®

Krovar®
Princep® 4L
Princep Caliber 90®
Prowl
Simazine

Sim-Trol®
Sinbar®
Solicam®
Surflan®
2,4-D

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

LOW VOLUME APPLICATION HARD TO CONTROL WEED RECOMMENDATIONS IN CITRUS (FLORIDA AND TEXAS ONLY)

To control or suppress the perennial weeds listed in the following table, apply the recommended rate of TOUCHDOWN 5 in 3 to 20 30 gallons of water per acre. Use 10-20 30 gallons per acre if weed foliage is dense. Apply when weeds are actively growing. Refer to the PERENNIAL WEED CONTROL section, Table 4, for application timing for specific perennial weeds. If perennial weeds have been mowed or grazed, allow new growth to reach recommended growth stage prior to application.

USES FOR TOUCHDOWN 5 IN LOW VOLUME APPLICATIONS IN FLORIDA AND TEXAS ONLY

Weed Species	Rate of TOUCHDOWN 5 (Pints per Acre)			
	1½ 1.6	3½ 3.2	4½ 4.8	6½ 6.4
Bermudagrass	B	B	PC	C
Guineagrass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	NR	B	C	C
Paragrass	B	C	C	C
Torpedograss	NR	S	PC	PC

B = Burndown
C = Control
NR = Not Recommended

PC = Partial Control
S = Suppression

PERENNIAL GRASS SUPPRESSION (CHEMICAL MOWING) OF ORCHARD FLOORS

BAHIAGRASS

TOUCHDOWN 5 can be used to inhibit seedhead emergence and suppress vegetative growth for approximately 40 to 50 days with a single application. By using a sequential application, suppression of vegetative growth and inhibition of seedhead emergence can be extended to 120 days. Applications must be made prior to seedhead emergence. Apply TOUCHDOWN 5 at 20 to 30 days after complete green-up or after mowing to 4 inches tall. When a single application is planned, use 5 fluid ounces of TOUCHDOWN 5 per acre in 10 to 20 gallons of water. When a sequential application is planned, use 3½ fluid ounces per acre for the first application followed by another application of 3½ fluid ounces per acre 40 to 50 days later.

BERMUDAGRASS

For Suppression Only:

East of the Rocky Mountains:

Apply 5 to 12 fluid ounces of TOUCHDOWN 5 in 3 to 20 gallons of water per acre. Make the application 2 weeks after complete green-up or after 3 to 4 inches of regrowth following mowing. Use 5 to 8 fluid ounces per acre if a lesser degree of suppression is desired. A sequential application can be used when regrowth occurs.

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West of the Rocky Mountains:

Apply 12 fluid ounces of TOUCHDOWN 5 ~~plus a nonionic surfactant/wetting agent per acre~~ in 3 to 10 gallons of water per acre. Make the application 2 weeks after complete green-up or after 3 to 4 inches of regrowth following mowing. A sequential application can be used when regrowth occurs. ~~See the SPRAY ADDITIVES section for recommendations for surfactants and wetting agents.~~

For Partial Control and Burndown:

TOUCHDOWN 5 can be used for burndown and partial control of bermudagrass at ~~1½ 1.6~~ to ~~3½ 3.2~~ pints in 3 to 20 gallons of water per acre. Use ~~1½ 1.6~~ pints east of the Rocky Mountains and ~~3½ 3.2~~ pints ~~plus a nonionic surfactant/wetting agent~~ west of the Rocky Mountains. ~~See the SPRAY ADDITIVES section for recommendations for surfactants and wetting agents.~~

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

COOL SEASON GRASS COVERS (fine fescue, Kentucky bluegrass, orchardgrass, quackgrass, tall fescue)

For suppression of orchardgrass, fine fescue, tall fescue, and quackgrass, apply 6 fluid ounces of TOUCHDOWN 5 in 10 to 20 gallons of water per acre. Add ~~ammonium sulfate AMS~~ at ~~1-2%~~ by weight or ~~8.5-17~~ pounds per 100 gallons of spray mix. ~~See SPRAY ADDITIVES section for rates.~~

For suppression of Kentucky bluegrass, use 5 fluid ounces of TOUCHDOWN 5. Do not add ~~ammonium sulfate AMS~~ for suppression of Kentucky bluegrass.

CHEMICAL FALLOW - ECOFALLOW SYSTEMS

METHOD OF APPLICATION: ~~Chemical fallow, preplant fallow beds, aid to tillage.~~

~~TOUCHDOWN 5 may be used in chemical fallow and ecofallow systems for control of grasses and broadleaf weeds. This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made 35 days prior to planting. Refer to the CHEMICAL FALLOW-ECOFALLOW WEEDS CONTROLLED section for use rates. Apply to actively growing weeds only after maximum germination period. Weeds emerging after application will not be controlled. Repeat treatments may be necessary to control late germinating weeds. Reduced control may result from applications made to drought stressed or dust covered plants. Allow a minimum of 3 days after application before tillage.~~

CHEMICAL FALLOW - ECOFALLOW WEEDS CONTROLLED
TOUCHDOWN 5 RATES

Weed Species	Maximum Plant Height (inches)	TOUCHDOWN 5 Rate (pints/acre)
Foxtails <i>Setaria</i> spp.	12	½
Barley <i>Hordeum vulgare</i> Barnyardgrass <i>Echinochloa crus-galli</i> Bluegrass, annual <i>Poa annua</i> Bluegrass, bulbous <i>Poa bulbosa</i> Brome, downy <i>Bromus tectorum</i> Brome, Japanese <i>Bromus japonicus</i> Chickweed <i>Stellaria media</i> Mustard, blue <i>Chorispora tenella</i> Mustard, tansy <i>Descurainia pinnata</i> Mustard, tumble <i>Sisymbrium altissimum</i> Mustard, wild <i>Brassica kaber</i> Rye <i>Secale cereale</i> Ryegrass, Italian <i>Lolium multiflorum</i> Sandbur, field <i>Cenchrus incertus</i> Stinkgrass <i>Eragrostis cillianensis</i> Wheat <i>Triticum aestivum</i> Witchgrass <i>Panicum capillare</i>	12 6 6 6 6 6 6 6 6 6 12 12 12 6 18 12	⅔ - 1
Cheat <i>Bromus secalinus</i> Cocklebur <i>Xanthium strumarium</i> Corn <i>Zea mays</i> Crabgrass <i>Digitaria</i> spp. Field pennycress <i>Thlaspi arvense</i> Falseflax, smallseed <i>Camella microcarpa</i> Goatgrass, Jointed <i>Aegilops cylindrica</i> Henbit <i>Lamium amplexicaule</i> Kochia <i>Kochia scoparia</i> Lambsquarters, common <i>Chenopodium album</i> Oats, Wild <i>Avena fatua</i> Panicum, Fall <i>Panicum dichotomiflorum</i> Shepherdspurse <i>Capsella bursa-pastori</i> Sowthistle, annual <i>Sonchus oleraceus</i>	6 12 6 12 6 12 6 6 6 6 12 12 6 6	1 - 1¼

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**CHEMICAL FALLOW-ECOFALLOW WEEDS CONTROLLED
 TOUCHDOWN 5 RATES IN A TANK MIXTURE**

Weed Species		Maximum Plant Height (Inches)	TOUCHDOWN 5 Rate (pints/acre)
Kochia	<i>Kochia scoparia</i>	6	2/3 + Banvel
Cocklebur	<i>Xanthium strumarium</i>	12	2/3 + 2,4-D or Banvel ¹
Horseweed/Marestail	<i>Conyza canadensis</i>	6	
Lambsquarters, common	<i>Chenopodium album</i>	6	
Lettuce, prickly	<i>Lactuca serriola</i>	6	
Pigweed, redroot	<i>Amaranthus retroflexus</i>	6	
Sunflower, Wild	<i>Helianthus annuus</i>	12	
Thistle, Russian	<i>Salsola kali</i>	6	
Barnyardgrass	<i>Echinochloa crus-galli</i>	6	2/3 to 1 + Atrazine or Bladex ¹
Brome, downy	<i>Bromus tectorum</i>	6	
Cocklebur	<i>Xanthium strumarium</i>	12	
Foxtail, green	<i>Setaria viridis</i>	12	
Kochia	<i>Kochia scoparia</i>	6	
Lambsquarters, common	<i>Chenopodium album</i>	6	
Lettuce, prickly	<i>Lactuca serriola</i>	6	
Mustard, tansy	<i>Descurainia pinnata</i>	6	
Pigweed, redroot	<i>Amaranthus retroflexus</i>	6	
Sandbur, Field	<i>Cenchrus spp.</i>	12	
Stinkgrass	<i>Eragrostis cilianensis</i>	12	
Thistle, Russian	<i>Salsola kali</i>	6	
Wheat	<i>Triticum aestivum</i>	18	
Witchgrass	<i>Panicum capillare</i>	12	

¹See the TANK MIXTURES FOR CHEMICAL FALLOW - ECOFALLOW SYSTEMS section for rates of tankmix partners.

CROP ROTATIONS IN CHEMICAL FALLOWLAND

Continuous Winter Wheat or Winter Wheat/Row Crop Rotations

- 1) **Post-Harvest Application: 2 to 3 Month Recropping Interval**
Apply TOUCHDOWN 5 post harvest to wheat stubble (June to September) for control of actively growing emerged weeds. Weeds should be allowed to regrow after harvest. Best control will occur when grasses are treated before the heading stage and broadleaf weeds do not exceed 18 inches in height. Tankmixes with Banvel or 2,4-D are recommended for enhanced broadleaf weed control. Refer to the **CHEMICAL FALLOW-ECOFALLOW WEEDS CONTROLLED** section for rates.

- 2) **Post-Harvest Application: 12 to 14 Month Recropping Interval**
Apply TOUCHDOWN 5 post harvest to wheat stubble (June to September) for control of actively growing emerged weeds and volunteer wheat. Weeds should be allowed to regrow after harvest. Repeat applications may be necessary for fall germinating downy brome, winter wheat, and winter annual broadleaf weeds. Tankmixes with atrazine or Bladex are recommended for residual control of many weeds.

- 3) **Spring Application**
Apply TOUCHDOWN 5 to actively growing downy brome and volunteer wheat prior to seedhead formation. Early applications will improve moisture conservation. Tank mix with Banvel or 2,4-D to improve control of winter annual and spring germinating broadleaf weeds. Repeat applications may be necessary throughout the summer months to control newly germinating weeds prior to crop seeding. Refer to the **CHEMICAL FALLOW-ECOFALLOW WEEDS CONTROLLED** section for rates.

Continuous Small Seeded Spring Grain Rotations and or Spring Grain/Row Crop Rotations

- 1) **Post-Harvest ~~Small Seeded~~ Application**
Apply TOUCHDOWN 5 to actively growing grasses and volunteer grain. Tank mix with Banvel or 2,4-D to improve control of large kochia, redroot pigweed, Russian thistle and lambsquarters. Refer to the **CHEMICAL FALLOW-ECOFALLOW WEEDS CONTROLLED** section for rates.

- 2) **Alternate Year Application**
Apply TOUCHDOWN 5 in the spring of the fallow year after germination of foxtail species and volunteer grain. Tankmixes of Banvel or 2,4-D will improve control of spring and winter annual broadleaf weeds. Repeat applications may be necessary as new weeds germinate. Refer to the **CHEMICAL FALLOW-ECOFALLOW WEEDS CONTROLLED** section for rates.

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TANK MIXTURES FOR CHEMICAL FALLOW - ECOFALLOW SYSTEMS

Tankmixes of TOUCHDOWN 5 with other herbicides may improve control of some emerged weeds. Tankmixes with some residual herbicides provide preemergence control of weeds listed on the individual product labels. The following herbicides may be tank mixed with TOUCHDOWN 5 at rates indicated.

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

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

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CONSERVATION COMPLIANCE/ CONSERVATION RESERVE PROGRAM (CRP)
 (For use in compliance with the Federal Conservation Compliance Programs)

Apply for control of annual and perennial grass and broadleaf weeds. Refer to **WEEDS CONTROLLED** section for use rates.

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

- Renovation/Site Preparation: Prior to application, remove existing removal of excessive vegetation by grazing, mowing, burning, etc. may improve control. Allow When annual weeds have been mowed or grazed, wait for 3 to 4 inches of new growth before application of TOUCHDOWN 5. When perennial weeds have been mowed or grazed, allow regrowth to reach recommended stage (see PERENNIAL WEED CONTROL section, Table 4 for rates and timings).

Sequential applications of TOUCHDOWN and GRAMOXONE EXTRA herbicides are effective in controlling established CRP grasses. Refer to the GRAMOXONE EXTRA herbicide label for recommended rates and tankmixes.

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

WEED SPECIES	PROGRAM A	PROGRAM B
Fescue Orchardgrass Ryegrass	Gramoxone Extra 2-2.5 pints/A Followed 7-10 days later with Gramoxone Extra 2-2.5 pints/A	Touchdown 5 1.6-2.0 pints/A Followed 10-14 days later with Gramoxone Extra 2-2.5 pints/A

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

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TOUCHDOWN 5 Booklet
TOU429.RSA-041798**CORN (Field Corn, Popcorn, and Seed Corn)****MINIMUM OR NO-TILLAGE SYSTEMS**

~~TOUCHDOWN 5 is a nonselective systemic herbicide for use as a broadcast spray to control emerged annual and perennial weeds in fields planted to minimum or no-till corn. Apply as a broadcast application before, during, or after planting, but before crop emergence. TOUCHDOWN 5 can also be applied to corn as a spot spray.~~

~~METHOD OF APPLICATION: Before, during, or after planting but before crop emergence, spot spray, and post harvest.~~

Follow the directions listed in the **APPLICATION DIRECTIONS, SPRAY ADDITIVES, and APPLICATION EQUIPMENT AND TECHNIQUES** sections.

Refer to the **WEEDS CONTROLLED** section, beginning on Page , for rates and timing.

GENERAL USE PRECAUTIONS FOR CORN

- ~~Do not apply within Spot application must be made at least 90 days of before harvest of corn grain or corn fodder.~~
- ~~Avoid contact with corn foliage.~~
- ~~Do not use on sweet corn.~~
- ~~Do not apply more than 6 1/4 6.4 pints per acre per year, as a combination of broadcast sprays prior to crop emergence and as spot spray applications.~~

TANK MIXTURES FOR CORN

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

~~**For Control or Suppression of Perennial Weeds in a Residual Herbicide Tankmix:** Refer to the **PERENNIAL WEEDS CONTROLLED** section, Table 4, for application rates and timing. Use rates at the higher end of the rate range when weed populations are dense or plants are under stress. Perennial weeds may require multiple applications for control. If multiple applications are required, then no more than 6.4 pints of TOUCHDOWN 5 should be applied per year.~~

~~TOUCHDOWN 5 can be tank-mixed with the following products: Several of the herbicides listed provide preemergence control or suppression of annual weeds. UAN may be used as a carrier at 10 - 70 gallons per acre with 2,4-D, Banvel®, or any residual herbicides on the following list. For use with 2,4-D and Banvel on annual and perennial weeds, consult Tables 3 and 4. AMBUSH®, KARATE®, and WARRIOR® are insecticides which can be tank-mixed with TOUCHDOWN 5 for control of labelled pests. Reduced weed control may occur on certain weeds as a result of UAN foliar burn which can reduce uptake of TOUCHDOWN 5.~~

TOUCHDOWN 5-plus:

TOUCHDOWN 5 can be tank mixed with the following products:

AMBUSH®	Dual II®	Lightning™
Atrazine	Dual II Magnum™	Linex®
Banvel	Extrazine® II	Lorox®
Basis®	Frontier®	Marksman®
Bicep®	FULTIME™	Micro-Tech®
Bicep II®	Guardsman®	Prowl®
Bicep II Magnum™	Harness®	Simazine
Bladex®	Harness Xtra	SURPASS® EC
Broadstrike®	Hornet™	SURPASS 100
Bullet®	KARATE®	TOPNOTCH™
Clarity®	Lariat®	WARRIOR®
Dual®	Lasso®	2,4D

Refer to individual product labels for precautionary statements, restrictions, rates, and a list of weeds controlled. Refer to the ~~WEEDS CONTROLLED~~ section for rates of TOUCHDOWN 5 to use in a tank mix.

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FALLOWLAND AND POST HARVEST USE

~~TOUCHDOWN 5 may be applied to fallowland and to fields following harvest to control annual and perennial weeds.~~
Refer to **WEEDS CONTROLLED** Section, beginning on Page _____, for use rates. Repeat applications may be necessary to control weeds emerging after application. Use the higher rate on heavy or sodded infestations. Allow sufficient time for regrowth to occur after harvest prior to application. Avoid application after plants have been exposed to severe frost. ~~Rotational crops~~ Any crops not listed on this label may be planted back into TOUCHDOWN 5 treated areas 35 days after application.

FARMSTEAD (NONCROP)

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

Farmyards	Rights-of-way
Soil Bank Land	Barrier Strips
Farm Buildings	Equipment Areas
Fuel Storage Areas	Fence Rows
- ~~Apply to annual and perennial grass and broadleaf weeds according to the~~ Refer to **WEEDS CONTROLLED** section of this label, beginning on Page _____, for application rates and timings.
- Avoid contact with the foliage of ornamentals or other desirable plants.
- Repeat applications may be necessary.

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SOYBEANS

MINIMUM OR NO-TILLAGE SYSTEMS

~~TOUCHDOWN 5 is a nonselective systemic herbicide for use as a broadcast spray to control emerged annual and perennial weeds in minimum or no-till planted soybeans. Apply as a broadcast application before, during or after planting, but before crop emergence. TOUCHDOWN 5 can be applied to soybeans as a spot spray and by wiper or wick.~~

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

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

GENERAL USE PRECAUTIONS FOR SOYBEANS

- Spot application must be made at least 8 weeks before harvest.
- Wiper/ or wick application must be made at least 7 days before harvest.
- Avoid contact with soybean foliage.
- Do not apply more than ~~6 1/2~~ 6.4 pints per acre per year as a combination of broadcast sprays prior to crop emergence and as spot spray and wiper applications.

TANK MIXTURES FOR SOYBEANS

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

For Control or Suppression of Perennial Weeds in a Residual Herbicide Tankmix : Refer to the **PERENNIAL WEEDS CONTROLLED** section, Table 4, for application rates and timing. Use rates at the higher end of the rate range when weed populations are dense or plants are under stress. Perennial weeds may require multiple applications for control. If multiple applications are required, then no more than 6.4 pints of TOUCHDOWN 5 should be applied per year.

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

TOUCHDOWN 5 can be tank mixed with the following ~~pesticides products~~: Several of the herbicides listed provide preemergence control or suppression of annual weeds. ~~WARRIOR is an insecticide which can be tank mixed with TOUCHDOWN 5 for control of labeled pests.~~

TOUCHDOWN 5 plus:

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

Refer to individual product labels for precautionary statements, restrictions, rates, and a list of weeds controlled.
~~Refer to the WEEDS CONTROLLED tables for rates of TOUCHDOWN 5 to use in a tankmix.~~

WEEDS CONTROLLED

All weeds listed below are controlled by spray and hand-directed spot applications of TOUCHDOWN 5. For spray application, use the indicated rates. See **DIRECTIONS FOR USE** for mixing and application instructions.

Water volumes of 3 to 30 gallons per acre by ground equipment and 3 - 15 gallons by air are recommended.

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

Apply to actively growing weeds.

MAP POSITIONED HERE

**TABLE 1
ANNUAL WEED CONTROL - TOUCHDOWN 5 RATES**

WEED SPECIES	SCIENTIFIC NAME	PINTS PER ACRE			
		MAXIMUM HEIGHT/LENGTH (inches)			
		2	4	6	12
Amaranth, livid	<i>Amaranthus lividus</i>				1 1/4
Amaranth, slender	<i>Amaranthus viridis</i>				1 1/4
Amaranth, spiny	<i>Amaranthus spinosus</i>				1 1/4
Barley	<i>Hordeum vulgare</i>				3/4
Barnyardgrass	<i>Echinochloa crus-galli</i>			1 1/4	
Bluegrass, annual	<i>Poa annua</i>			3/4	
Bluegrass, bulbous	<i>Poa bulbosa</i>			3/4	
Black nightshade	<i>Solanum sp.</i>			1 1/4	
Brome, downy	<i>Bromus tectorum</i>			3/4	
Brome, Japanese	<i>Bromus japonicus</i>			3/4	
Gamphorweed	<i>Heterotheca subaxillaris</i>			2 1/2	
Carolina geranium	<i>Geranium carolinianum</i>			2 1/2 - 4 1/2	
Wheat	<i>Bromus secalinus</i>			3/4	
Chickweed, common	<i>Stellaria media</i>			3/4	
Chickweed, mouseear	<i>Gerastium vulgatum</i>			3/4	
Cocklebur, common	<i>Xanthium strumarium</i>			3/4	
Corn	<i>Zea mays</i>			3/4	
Crabgrass	<i>Digitaria sp.</i>				3/4
Gutleaf eveningprimrose	<i>Oenothera laciniata</i>			2 1/2 - 4 1/2	
Fall Panicum	<i>Panicum dichotomiflorum</i>			1 1/2	2 1/2
Filaree	<i>Erodium sp.</i>				2 1/2
Flabane, rough	<i>Erigeron strigosus</i>			1 1/2	2 1/2

Foxtails	<i>Setaria</i> sp.				3/5
Goatgrass, jointed	<i>Aegilops cylindrica</i>			3/4	
Goosegrass	<i>Elysius indica</i>				1 1/2
Groundsel, common	<i>Senecio vulgaris</i>			3/4	
Henbit	<i>Lamium amplexicaule</i>			3/4	
Hopbroom-copperleaf	<i>Acalypha ostryifolia</i>		1 1/2		
Horseweed/Marestail	<i>Gonzya canadensis</i>			3/4	1 1/4
Johnsongrass, seedling	<i>Sorghum halepense</i>				3/4
Kochia	<i>Kochia scoparia</i>			3/4	2 1/4
Lambquarters, common	<i>Chenopodium album</i>			3/4	1 1/4
Lettuce, prickly	<i>Lactuca scariola</i>				1 1/4
Morningglory	<i>Ipomoea</i> sp.		1 1/2		
Mustard, blue	<i>Chorispora tenella</i>			3/4	
Mustard, tansy	<i>Descurainia pinnata</i>			3/4	
Mustard, tumble	<i>Sisymbrium altissimum</i>			3/4	
Mustard, wild	<i>Brassica kaber</i>			3/4	
Oats, wild	<i>Avena fatua</i>				3/4
Pennycress, field	<i>Thlaspi arvense</i>			3/4	
Panicum, Texas	<i>Panicum texanum</i>				3/4
Pigweed, redroot	<i>Amaranthus retroflexus</i>				3/4
Pigweed, smooth	<i>Amaranthus hybridus</i>				3/4
Prickly sida (Teaweed)	<i>Sida spinosus</i>		1 1/2		
Pusley, Florida	<i>Richardia scabra</i>				1 1/2
Ragweed, common	<i>Ambrosia artemisiifolia</i>				1 1/2
Ragweed, giant	<i>Ambrosia trifida</i>				1 1/2
Red rice	<i>Oryza sativa</i>		1 1/2		
Rocket, London	<i>Sisymbrium ino</i>			3/4	
Rye	<i>Secale cereale</i>				3/5
Ryegrass, Italian	<i>Lolium multiflorum</i>				1 1/4
Sandbar, field	<i>Genchus incertus</i>				3/4
Shattercane	<i>Sorghum bicolor</i>				3/4
Shepherdspurse	<i>Capsella bursa-pastoris</i>				1 1/4
Sicklesod	<i>Gessia obtusifolia</i>		1 1/2		
Signegrass, broadleaf	<i>Brechiana platyphylla</i>				1 1/4
Smartweed (ladythumb)	<i>Polygonum persicaria</i>				1 1/4
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>				1 1/4
Sowthistle, annual	<i>Sonchus oleraceus</i>				1 1/2 2 1/4
Spanishneedles	<i>Biddens bipinnata</i>				1 1/2
Sprangletop	<i>Leptochloa</i> sp.			1 1/2	2 1/4

Spurge, annual	<i>Euphorbia</i> sp.			¾	1½
Stinkgrass	<i>Eragrostis cilianensis</i>				¾
Sunflower, common	<i>Helianthus annuus</i>			1½	2½
Thistle, Russian	<i>Galsola iberea</i>			1½	2½
Velvetleaf	<i>Abutilon theophrasti</i>			2½	
Waterhemp, common	<i>Amaranthus rudis</i>				¾
Waterhemp, tall	<i>Amaranthus tuberculatus</i>				¾
Wheat	<i>Triticum aestivum</i>			1½	1½
Witchgrass	<i>Panicum capillare</i>				¾
Woolly cupgrass	<i>Eriochloa villosa</i>			¾	

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

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

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE				
		MAXIMUM WEED (HEIGHT/LENGTH)				
		3"	6"	12"	18"	18"+
Barley	<i>Hordeum vulgare</i>		0.6-1.2	0.6-1.6	0.8-2.0	1.2-2.4
Barnyardgrass	<i>Echinochloa crus-galli</i>	0.8	0.8-1.6	1.6-3.2		
Black nightshade	<i>Solanum nigrum</i>	1.2	0.8-1.6	1.2-3.2		
Bluegrass, annual	<i>Poa annua</i>		0.6-0.8	0.8		
Bluegrass, bulbous	<i>Poa bulbosa</i>			0.8		
Brome, downy ¹	<i>Bromus tectorum</i>	0.6	0.6-0.8	1.0		
Brome, Japanese	<i>Bromus japonicus</i>	0.6	0.8	1.0		
Buckwheat, Wild ²	<i>Polygonum convolvulus</i>		1.6			
Camphorweed	<i>Heterotheca subaxillaris</i>		2.4			
Carolina geranium ³	<i>Geranium carolinianum</i>	1.6-2.4	2.4-3.2			
Cheat	<i>Bromus secalinus</i>	0.6	0.8	1.0	1.2	
Chickweed, common	<i>Stellaria media</i>		0.6-0.8	0.8	1.2	
Chickweed, mouseear	<i>Cerastium vulgatum</i>		0.6-0.8	0.8	1.2	
Cocklebur, common	<i>Xanthium strumarium</i>		0.8	0.8-1.2	1.2-1.6	1.6-2.4
Corn ⁴	<i>Zea mays</i>			0.8	1.0-1.6	
Crabgrass ⁵	<i>Digitaria</i> spp.		0.8-1.2	0.8-1.6	1.2-1.6	
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	0.8	0.8-1.6	1.6-3.2		
Cutleaf eveningprimrose ³	<i>Oenothera laciniata</i>	1.6-2.4	2.4-3.2			
Fall Panicum	<i>Panicum dichotomiflorum</i>	0.8-1.2	1.2-1.6	1.2-2.4		
Filaree	<i>Erodium</i> spp.			2.4		
Fleabane, annual	<i>Erigeron annuus</i>		0.8-1.2	1.2-2.4	1.2-2.4	
Fleabane, hairy	<i>Coryza bonariensis</i>		0.8-1.2	1.2-2.4	1.2-2.4	
Fleabane, rough	<i>Erigeron strigosus</i>		0.8-1.2	1.2-2.4	1.2-2.4	
Foxtails	<i>Setaria</i> spp.		0.6-1.2	0.8-1.6	0.8-1.6	0.8-1.6
Goatgrass, jointed	<i>Aegilops cylindrica</i>		0.8	1.0		

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Goosegrass	<i>Eleusine indica</i>	0.8	1.2	1.6-2.4		2.4-4.8
Groundsel, common	<i>Senecio vulgaris</i>		0.8			
Hemp, Sesbania ³	<i>Sesbania exaltata</i>	1.2	1.6-2.4			
Henbit ³	<i>Lamium amplexicaule</i>		1.6	2.4		
Hophornbeam copperleaf	<i>Acalypha ostryifolia</i>	1.6	2.4			
Horseweed/Marestail	<i>Gonyza canadensis</i>		0.8-1.2	1.2-1.6	1.6	1.6-2.4
Johnsongrass, seedling	<i>Sorghum halepense</i>			1.0	1.2	2.4
Kochia	<i>Kochia scoparia</i>	0.8	1.2-1.6	1.2-2.4		
Lambsquarters, common	<i>Chenopodium album</i>		0.8-1.6	1.6	2.4	
Lettuce, prickly	<i>Lactuca scariola</i>		0.8-1.6	1.2-2.4		1.6-2.4
Morningglory ^{3,6}	<i>Ipomoea</i> spp.	1.2-2.4	1.6-3.2			
Mustard, blue	<i>Chorispora tenella</i>	0.6-0.8	0.6-0.8	1.0		1.2
Mustard, tansy	<i>Descurainia pinnata</i>	0.6-0.8	0.6-1.0	1.2		1.2
Mustard, tumble	<i>Sisymbrium atissimum</i>	0.6-0.8	0.6-0.8	1.0		1.2
Mustard, wild	<i>Brassica kaber</i>	0.6-0.8	0.6-0.8	0.8		1.2
Oats	<i>Avena sativa</i>		0.6-1.2	0.6-1.6	0.8-2.0	1.2-2.4
Oats, wild	<i>Avena fatua</i>		0.6-1.2	0.8-1.2		
Panicum, Texas	<i>Panicum texanum</i>		0.8-1.0	1.6-2.4		
Pennycress, field	<i>Thlaspi arvense</i>		0.6-1.2	1.0-1.6		
Pigweed	<i>Amaranthus</i> spp.		0.6-0.8	0.8-1.0		1.6
Prickly sida (Teaweed) ^{3,6}	<i>Sida spinosa</i>	1.2-2.0	2.4-3.2			
Pusley, Florida	<i>Richardia scabra</i>		1.6	1.6-3.2		
Ragweed, common	<i>Ambrosia artemisiifolia</i>		0.8-1.2	1.2-3.2		
Ragweed, giant	<i>Ambrosia trifida</i>	1.2	1.6	1.6-2.4	1.6-3.2	2.4-3.2
Red rice	<i>Oryza sativa</i>	1.6	2.4-3.2			
Rocket, London	<i>Sisymbrium irio</i>	0.6	0.6-0.8	0.8-1.0		
Rye	<i>Secale cereale</i>		0.6-1.2	0.8-1.6	1.2-2.0	1.6-2.4
Ryegrass, Italian	<i>Lolium multiflorum</i>		1.6	2.4-3.2		
Sandbur, field	<i>Cenchrus incertus</i>			0.6		
Shattercane	<i>Sorghum bicolor</i>			0.8-1.0	1.2	1.2
Sheperdspurse	<i>Capsella bursa-pastoris</i>		0.8-1.0	1.2-1.6		
Sicklepod	<i>Cassia obtusifolia</i>	1.6	2.4-3.2			
Signalgrass, broadleaf	<i>Bracharia platyphylla</i>	0.8	1.0-1.6	2.4-3.2		

Smartweed (ladysthumb)	<i>Polygonum persicaria</i>	0.8-1.0	1.2-1.6	1.6-2.4		
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	0.8-1.0	1.2-1.6	1.6-2.4		
Sowthistle, annual	<i>Sonchus oleraceus</i>		1.6	2.4		
Spanishneedles	<i>Bidens bipinnata</i>		1.6	1.6-2.4	2.4	
Sprangletop	<i>Leptochloa spp.</i>		0.8	1.2		1.6
Spurge	<i>Euphorbia spp.</i>		0.8	1.2		1.6
Stinkgrass	<i>Eragrostis cilianensis</i>	0.6-1.0	0.8-1.0			
Sunflower, common	<i>Helianthus annuus</i>		0.8-1.0	1.0-1.2	1.2-1.6	2.4
Thistle, Russian	<i>Salsola iberica</i>	0.8-1.0	1.2-1.6	1.6-2.4		
Velvetleaf ⁶	<i>Abutilon theophrasti</i>	0.8-1.2	1.2-1.6	1.6-2.4	2.0-3.2	
Virginia copperleaf	<i>Acalypha virginica</i>	1.6	2.4			
Waterhemp	<i>Amaranthus spp.</i>		0.6-0.8	0.8-1.0		
Wheat	<i>Triticum aestivum</i>		0.6-1.2	0.6-1.6	0.8-2.0	1.2-2.4
Witchgrass	<i>Panicum capillare</i>			0.8		
Woolly cupgrass	<i>Eriochloa villosa</i>	0.8-1.2	0.8-1.6	1.2-1.6		

¹ In no-till systems, use 1 pint/A.

² Maximum runner length

³ When the predominant weed species include Carolina geranium, cutleaf evening primrose, fescue, hemp sesbania, henbit, morninglory, prickly sida, and vetch that are less than 6 inches tall, GRAMOXONE EXTRA should be considered as an alternative.

⁴ Will not control glyphosate resistant volunteer corn

⁵ Plant diameter

⁶ Multiple applications may be required

TABLE 2
WESTERN REGION
ANNUAL WEED CONTROL - TOUCHDOWN 5 RATES

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

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE			
		MAXIMUM WEED (HEIGHT/LENGTH)			
		4"	6"	12"	18"
Barley	<i>Hordeum vulgare</i>		0.6-1.2	0.6-2.0	0.6-2.4
Barley, foxtail	<i>Hordeum jubatum</i>		0.6-1.6		
Barnyardgrass	<i>Echinochloa crus-galli</i>		0.6-1.6		
Bluegrass, annual	<i>Poa annua</i>		0.6-1.6		
Bluegrass, bulbous	<i>Poa bulbosa</i>		0.8-2.0		
Brome, downy ¹	<i>Bromus tectorum</i>		0.6-1.6		
Buttercup	<i>Ranunculus</i> sp.			0.8-2.0	
Canarygrass	<i>Phalaris canariensis</i>		0.8-2.0		
Cheat	<i>Bromus secalinus</i>		0.8-2.0		
Chickweed, common	<i>Stellaria media</i>		0.8-2.0		
Chickweed, mouseear	<i>Cerastium vulgatum</i>		0.8-2.0		
Cocklebur, common	<i>Xanthium strumarium</i>			0.8-2.0	
Corn	<i>Zea mays</i>		0.8-2.0		
Crabgrass	<i>Digitaria</i> sp.			0.8-2.0	
Dwarf dandelion, Virginia	<i>Rhizanthus virginica</i>			0.8-2.0	
Fall Panicum	<i>Panicum dichotomiflorum</i>			0.8-2.0	
False flax, smallseed	<i>Camelina microcarpa</i>			0.8-2.0	
Fiddleneck	<i>Amsinckia</i> sp.		0.8-2.0		
Filaree	<i>Erodium</i> sp.			2.4-6.4	
Fleabane, hairy	<i>Conyza bonariensis</i>		0.8-2.0		
Foxtail	<i>Setaria</i> sp.		0.4-1.2	0.4-2	
Goatgrass, jointed	<i>Aegilops cylindrica</i>		0.8-2.0		
Goosefoot, nettleleaf	<i>Chenopodium murale</i>		0.8-2.0		
Groundcherry	<i>Physalis</i> sp.		1.6-2.4		
Groundsel, common	<i>Senecio vulgaris</i>		0.8-2.0		
Henbit	<i>Lamium amplexicaule</i>		0.8-2.0		

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Horseweed/Marestail	<i>Conyza canadensis</i>		0.8-2.0		
Johnsongrass, seedling	<i>Sorghum halepense</i>			0.8-2.0	
Kochia	<i>Kochia scoparia</i>	0.8-1.2	1.2-1.6		
Lambsquarters, common	<i>Chenopodium album</i>		0.8-2.0		
Morningglory ²	<i>Ipomoea</i> sp.	0.6-2.0			
Mustard, blue	<i>Chorispora tenella</i>		0.6-1.6		
Mustard, tansy	<i>Descurainia pinnata</i>		0.6-1.6		
Mustard, tumble	<i>Sisymbrium altissimum</i>		0.6-1.6		
Mustard, wild	<i>Sinapis arvensis</i>		0.6-1.6		
Nightshade	<i>Solanum</i> sp.		1.6-2.4		
Oats	<i>Avena sativa</i>		0.6-1.2	0.6-2.0	3.6-2.4
Oats, wild	<i>Avena fatua</i>			0.8-2.0	
Panicum, Texas	<i>Panicum texanum</i>			0.8-2.0	
Pennycress, field	<i>Thlaspi arvense</i>		0.8-2.0		
Pigweed	<i>Amaranthus</i>			0.8-2.0	
Puncturevine	<i>Tribulus terrestris</i>	0.8-1.6	1.2-2.4		
Pusley, Florida	<i>Richardia scabra</i>			1.6-3.2	
Rabbitfootgrass	<i>Polypogon monspeliensis</i>		0.8-2.0		
Rocket, London	<i>Sisymbrium ino</i>		0.8-2.0		
Rockpurslane, Redmaids	<i>Calandrinia caulescens</i>		0.8-2.0		
Rye	<i>Secale cereale</i>		0.6-1.2	0.8-1.6	1.2-2.0
Ryegrass, Italian/annual	<i>Lolium multiflorum</i>		0.8-2.0		
Sandbur, field	<i>Cenchrus incertus</i>			0.6-1.6	
Shattercane	<i>Sorghum bicolor</i>			0.6-1.6	
Shepherdspurse	<i>Capsella bursa-pastoris</i>		0.8-2.0		
Sowthistle, annual	<i>Sonchus oleraceus</i>		0.8-2.0		
Sprangletop	<i>Leptochloa</i> sp.		1.6-2.4		

Spurge	<i>Euphorbia</i> spp.		0.8-2.0		
Spurge, prostrate	<i>Euphorbia supina</i>		1.6-2.4		
Stinkgrass	<i>Eragrostis ciliaris</i>			0.6-1.6	
Sunflower, common	<i>Helianthus annuus</i>		0.8-1.2	1.2-1.6	
Wheat	<i>Triticum aestivum</i>		0.6-1.2	0.6-2.0	3.6-2.4
Witchgrass	<i>Panicum capillare</i>			0.8-2.0	

¹ In no-till systems, use 0.8-1.6 pints/A.
² Multiple applications may be required

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TABLE 2 3
ANNUAL WEED CONTROL - TOUCHDOWN 5 RATES IN A TANKMIX
WITH 0.25 LBS A/A OF BANVEL OR 0.5 LBS A/A OF 2,4-D

Weed Species	Scientific Names	Maximum Height/ Length	TOUCHDOWN 5 PINTS PER ACRE
Lettuce, prickly Morningglory Ragweed, common Ragweed, giant Smartweed, Pennsylvania Velvetleaf	<i>Lactuca scariola</i> <i>Ipomoea</i> sp. <i>Ambrosia artemisiifolia</i> <i>Ambrosia trifida</i> <i>Polygonum pennsylvanicum</i> <i>Abutilon theophrasti</i>	6"	3/4 0.8
Cocklebur, common Fleabane, rough Horseweed/Marestail Kochia Lambsquarters, common Sunflower, common Thistle, Russian	<i>Xanthium strumarium</i> <i>Erigeron strigosus</i> <i>Conyza canadensis</i> <i>Kochia scoparia</i> <i>Chenopodium album</i> <i>Helianthus annuus</i> <i>Salsola iberica</i>	12"	

Read and follow Banvel and 2,4-D labels

TABLE 3-4
PERENNIAL WEED CONTROL AND WEED MANAGEMENT
TOUCHDOWN 5 RATES USED ALONE OR IN TANK MIX WITH
0.25 LBS A/A OF BANVEL OR 0.5 LBS A/A OF 2,4-D

WEED SPECIES	SCIENTIFIC NAMES	SPOT SPRAY % V/V	PINTS PER ACRE	TANKMIX with 2,4-D or BANVEL	APPLICATION TIMING AND REMARKS
Alfalfa	<i>Medicago sativa</i>	1.5	2-1/3 2.4-4.0		At 6 to 8" stage or more after final cutting in fall. Deep till after 7 days after treatment.
			0.8-1.6	Yes	At 6 to 8" stage or more for suppression
Artichoke, Jerusalem	<i>Helianthus tuberosus</i>	1.5	6-1/3 4.8-6.4		Actively growing; At or after flowering
Balsamapple	<i>Momordica charantia</i>	1.5			For partial control only. apply at or beyond bloom
Bahiagrass	<i>Paspalum notatum</i>	1.5	4-2/3 4.8-6.4		Actively growing, Early seed head stage
Bermudagrass	<i>Cynodon dactylon</i>	1.5	6-1/3 4.8-6.4		Actively growing. Seed heads present. may require retreatment
Bindweed, field	<i>Convolvulus arvensis</i>	1.5	6-1/3 3.2-4.8		Actively growing; At or after flowering, requires 2 applications
			0.8-1.6	Yes	At 8-12" stage or more for suppression
			1.6	Yes	At or after flowering for control, multiple application may be required
			1.6-6.4		In California: 12" or greater runner length. Use high end of rate range where dense populations exist. For suppression on land which is irrigated and tilled, use 1.6 pints/A.
Bluegrass, Kentucky	<i>Poa pratensis</i>	1.5	3-1/3 3.2-4.8		Actively growing; Boot to early seed head stage.
			1.6-2.4		For suppression.

Brackenfern	<i>Pteridium aquilinum</i>	1.25	6-1/3 4.8-6.4		Fronds fully expanded and at least 18" long
Bromegrass, smooth	<i>Bromus inermis</i>	1.5	3-1/3 4-2/3 1.6-3.2		Actively growing; Boot to early seed head.
			0.8		For suppression
Canarygrass, reed	<i>Phalaris arundinacea</i>	1.5	4-2/3 3.2-4.8		Actively growing; Boot to head
Cattail	<i>Typha sp.</i>	1.5	6-1/3 4.8-6.4		Actively growing; Early head to early bud
Clover, red Clover, white	<i>Trifolium pratense</i> <i>Trifolium repens</i>	1.5	6-1/3 4.8-6.4		Actively growing; Early head to early bud
			0.8-1.6	Yes	At 4 to 10" stage for suppression
Clover, white	<i>Trifolium repens</i>		6-1/3		Actively growing; early head to early bud.
Cogongrass	<i>Imperata cylindrica</i>	1.5	6-1/3 4.8-6.4		Actively growing; Late summer/fall greater than 18" in height. May require retreatment.
Growfootgrass	<i>Dactyloctenium aegyptium</i>		2-1/3		Actively growing; less than 6"
Dandelion	<i>Taraxacum officinale</i>	1.5	3-2/3 3.2-4.8		Actively growing; Early bud
			0.8	Yes	Early bud
Dayflower	<i>Commelina spp.</i>	1.5	5 4.8-6.4		Actively growing; Less than 4" in height
Dock, curly	<i>Rumex crispus</i>	1.5	3-2/3 3.6-4.8		Actively growing; Early bud
			0.8-1.6	Yes	Early bud

Dogbane, hemp	<i>Apocynum cannabinum</i>	1.5	6-1/3 6.4		Actively growing; Late bud to flower.
			0.8-3.2	Yes	Actively growing at 6-12" stage for suppression
			1.6	Yes	Actively growing, late bud to flower
Dogfennel	<i>Eupatorium capillifolium</i>	1.5	3-1/3 3.2-4.8		Actively growing, less than 12" in height
Fescue ²	<i>Festuca</i> spp.	1.5	4-2/3 4.8-6.4		Actively growing; Boot to early seedhead
Fescue, tall	<i>Festuca arundinacea</i>	1.5	1.6-4.8		For fall application on 8 to 12" plants, use 1.6-2.4 pints/A. Use 4.8 pints/A on CRP sodded stands at boot or later
Goatweed	<i>Scoparia dulcis</i>	2.0	4-2/3 4.8-6.4		Actively growing; Less than 7" stage
Guineagrass	<i>Panicum maximum</i>	1.0	4-2/3 4.8		Actively growing; 7-10 leaf stage
Horsenettle	<i>Solanum carolinense</i>	1.5	6-1/3 4.8-6.4		Actively growing; early head to early bud. Late bud to flower
			1.6-3.2	Yes	Late bud to flower

Johnsongrass	<i>Sorghum halepense</i>	1.0	1.6-4.8		Apply at boot to head stage and in the fall prior to frost. Use 1.6-3.2 pints/A for annual tillage systems. Use 3.2-4.8 pints/A on areas not annually tilled. Allow 3-7 days before tillage.
			0.8-1.6		For burndown, apply when plants are 10-12" stage and allow 3 days before tillage.
Lantana, largeleaf	<i>Lantana camara</i>	1.0			For partial control apply, at or beyond bloom stage
Milkweed, common	<i>Asclepias syriaca</i>	1.5	4-2/3 4.8		Actively growing; Late bud to early flower
			1.6	Yes	Late bud to early flower
			0.8-1.6	Yes	Suppression
Milkweed, honeyvine	<i>Ampelamus albidus</i>	1.5	3.2	Yes	Late bud to early flower
Muhly, wirestem	<i>Muhlenbergia frondosa</i>	1.5	3-1/3 1.6-3.2		Actively growing; 6-8" in height or more, actively growing. Use high end of rate range in non-tillage areas.
Mullein, common	<i>Verbascum thapsus</i>	1.5	6-1/3 4.8-6.4		Early head to early bud Early bud to head
Nightshade, silverleaf	<i>Solanum eleagnifolium</i>	1.5	1.6-3.2		Apply when 60% of plants have berries. Apply fall treatments before a killing frost.

<p>Nutsedge, purple Nutsedge, yellow</p>	<p><i>Cyperus rotundus</i> <i>Cyperus esculentus</i></p>	<p>1.5</p>	<p>4-2/3 2-1/3 + 2-1/3 0.8-4.8</p>	<p>Actively growing, flower</p> <p>Make sequential applications when actively growing, 3-5 leaf, less than 6" tall</p> <p>Treat when most plants are in flower stage. Repeat applications may be required for dense populations of nutsedge and subsequent germination of dormant nutlets. Allow 5" of regrowth before retreatment. Use 0.8-1.6 pints/A for suppression. A second application will be required on recovered plants with 5" of new growth.</p>
<p>Orchardgrass</p>	<p><i>Dactylis glomerata</i></p>	<p>1.5</p>	<p>3-1/3 4-2/3 2.4-3.2</p>	<p>Actively growing; minimum height of 12" in spring, 6" in fall Apply 3.2 pints/A on plants at early boot to seedhead stage. For spring applications, use 3.2 pints/A and allow a minimum height of 10-12". Fall applications may be made on actively growing plants at the boot to early seedhead stage at 2.4-3.2 pints/A.</p>
<p>Pampasgrass</p>	<p><i>Erianthus ravennae</i></p>	<p>1.5</p>		<p>For partial control only apply at or beyond boot stage</p>
<p>Paragrass</p>	<p><i>Brachiaria mutica</i></p>	<p>1.5</p>	<p>3-1/3 2.4-3.2</p>	<p>Actively growing, Early seedhead stage</p>
<p>Phaseybean¹</p>	<p><i>Phaseolus lathyroides</i></p>	<p>1.5</p>	<p>6-1/3 4.8-6.4</p>	<p>Actively growing, Less than 8" tall</p>

Quackgrass	<i>Agropyron repens</i>	1.5	1-1/2 1.6-3.2		Actively growing, less than 5" tall - retreatment may be required Apply at 6-10" stage in annual cropping systems followed by tillage. Use the higher rate on dense established stands. Allow 3 days before tillage.
			-4 3.2-4.8		Actively growing, greater than 5" tall Apply at 6-10" stage if tillage is not performed following application.
Redvine ¹	<i>Brunnichia ovata</i>	1.5	2-1/3 0.8-2.4		Actively growing, Greater than 18" tall in September/October; retreatment will be required at rates less than 1.6 pint/A. Allow 12" of regrowth before retreatment.
Ryegrass, perennial	<i>Lolium perenne</i>	1.0	2-1/3 1.6-4.8		Actively growing, Boot to head or prior to frost; use higher end of rate range if no tillage will be performed following application.
Smallflowered Alexandergrass	<i>Brachiaria subquadripata</i>	1.5	3-1/3- 4-2/3 3.2-4.8		Less than 4" in height, actively growing
Smartweed, swamp	<i>Polygonum coccineum</i>	1.5	2-1/3 2.4-6.4		Actively growing, Early bud, 12" stage
			0.8	Yes	Early bud, 12" stage
Spurge, leafy	<i>Euphorbia esula</i>	1.5	3-2/3 3.2		Actively growing, Greater than 12" tall in late summer or fall
			0.8	Yes	Greater than 12" tall in late summer.
Sweet potato, Wild	<i>Ipomea pandurata</i>	1.5			For partial control only, apply at or beyond flowering stage

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Switchgrass	<i>Panicum virgatum</i>	1.5	2-1/3 2.4-3.2	Actively growing; Boot to head stage
Thistle, Canada	<i>Cirsium arvense</i>	1.5	4-2/3 3.2-4.8	Actively growing, beyond bud stage Apply at bud to early flower stage. For fall applications or following mowing, allow a minimum of 6-8" rosette development.
Timothy	<i>Phleum pratense</i>	1.5	4-2/3 3.2-4.8	Actively growing, Boot to head; wait 3 days before tillage
Torpedograss ¹	<i>Panicum repens</i>	1.5	6-1/3 6.4	Actively growing; At or beyond seedhead for suppression
Trumpetcreeper ¹	<i>Campsis radicans</i>	1.5	3-1/3 3.2-4.8	Actively growing; Late September/October applications on actively growing plants, retreatment may be required

Vaseygrass	<i>Paspalum urvillei</i>	1.5	2 1/3 4.8-6.4		Actively growing, less than 12 inches in height Apply at early head stage
Vetch ²	<i>Vicia</i> spp.	1.5	3.2-4.8		Boot to head
Virginia Creeper	<i>Parthenocissus quinquefolia</i>	1.5	6 1/3 6.4		Actively growing, Full leaf expansion
Wheatgrass, Western	<i>Agropyron smithii</i>	1.5	4 2/3 3.2-4.8		Actively growing, Boot to head

¹ Partial Control
² When the predominant weed species include Carolina geranium, cutleaf evening primrose, fescue, hemp sesbania, henbit, morninglory, prickly sida, and vetch that are less than 6 inches tall, GRAMOXONE EXTRA should be considered as an alternative.

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TABLE 4
PERENNIAL WEED CONTROL - TOUCHDOWN 5 RATES IN A TANKMIX WITH
0.25 LBS A/A OF BANVEL OR 0.5 LBS A/A OF 2,4-D

WEED SPECIES	SCIENTIFIC NAMES	PINTS PER ACRE	APPLICATION TIMING AND REMARKS
Bindweed, field	<i>Convolvulus arvensis</i>	1 1/2	Actively growing, at or after flowering
Dandelion	<i>Taraxacum officinale</i>	3/4	Actively growing, early bud
Dock, curly	<i>Rumex crispus</i>	3/4	Actively growing, early bud
Dogbane, hemp	<i>Apocynum cannabinum</i>	1 1/2	Actively growing, late bud to flower
Milkweed, common	<i>Asclepias syriaca</i>	1 1/2	Actively growing, late bud to flower
Milkweed, honeyvine	<i>Ampelamus albidus</i>	3 1/3	Actively growing, late bud to flower
Smartweed, swamp	<i>Polygonum coccineum</i>	3/4	Actively growing, early bud
Spurge, leafy*	<i>Euphorbia esula</i>	3/4	Actively growing, greater than 12" tall in late summer or fall

*Partial Control
Read and follow Banvel and 2,4-D labels

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STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, food, or feed by storage and disposal. Keep container tightly closed when not in use. For help with any spill, leak, fire, or accident involving this material, call CHEMTREC 1-800-424-9300.

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

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

FOR RECYCLABLE/REFILLABLE CONTAINERS:

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

CONTAINER DISPOSAL: Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

Container Is Not Safe for Food, Feed, or Drinking Water!

This product is sold only for uses stated on its label. No express or implied license is granted to use or sell this product under any patent in any country except as specified. Country: United States of America. U.S. Patent No. 4,315,765.

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