



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

JUN 8 1999

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

Subject: Amended Registration for soybeans
TOUCHDOWN 5 Herbicide
Registration Number 10182-429
Your submissions dated May 11 and 27, 1999

Dear Ms. Rhodes:

The label amendment referred to above, submitted in connection with registration pursuant to section 3(c)(7)(B) of the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable, provided that you adhere to the following requirements:

1. The requirement to submit a developmental neurotoxicity study in rats (guideline no. 83-6) imposed as a condition of registration as indicated in my letter to you dated September 14, 1998, is also imposed as a condition of acceptance of this label amendment. Interim progress reports and the final report must be submitted by the dates required in the September 14, 1998 letter.
2. The soybean acreage treated with all sulfosate products during each fiscal year (October 1 through September 30) will be limited to 14,500,000 acres (20% of 1998 soybean acreage according to USDA statistics). More than 14,500,000 acres of soybeans may not be treated with sulfosate unless prior approval is obtained from EPA.
3. Submit an annual report of the number of acres of soybeans treated with this product for each fiscal year in which the use on soybeans is conditionally registered. The fiscal year begins October 1, and ends September 30. This information must be submitted to the Agency no later than January 15, following the end of the preceding fiscal year.

This information must be submitted to:

Registration Support Branch
Registration Division (7505C)
Environmental Protection Agency
Washington, DC 20460

4. 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 at 703-305-7801.

Sincerely,

Tobi Colvin-Snyder for

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

TOUCHDOWN® 5 Herbicide

NONSELECTIVE FOLIAR SYSTEMIC HERBICIDE FOR WEED CONTROL

ACTIVE INGREDIENT:

Sulfosate 48.6%

INERT INGREDIENTS: 51.4%

Total 100.0%

Contains 5 pounds active ingredient per gallon.

EPA Reg. No. 10182-429

EPA Est. No. 10182-

**ACCEPTED
with COMMENTS
In EPA Letter Dated**

JUN 8 1999

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, this pesticide
registered under FIFRA Section

10182-429

KEEP OUT OF REACH OF CHILDREN

CAUTION

Active Ingredient Made in Belgium; Formulated and Packaged in U.S.A.

**ZENECA Ag Products
ZENECA Inc.
Wilmington, DE 19850-5458**

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.

TABLE OF CONTENTS

	Page
STATEMENT OF PRACTICAL TREATMENT	
PRECAUTIONARY STATEMENTS	
Personal Protective Equipment	
User Safety Recommendations	
Environmental Hazards	
Drift	
DIRECTIONS FOR USE	
AGRICULTURAL USE REQUIREMENTS	
NONAGRICULTURAL USE REQUIREMENTS	
GENERAL INFORMATION	
GENERAL USE PRECAUTIONS	
APPLICATION DIRECTIONS	
Timing	
Rates	
Spray Additives	
Surfactants/Wetting Agents	
Ammonium Sulfate	
Tankmixes with Residual Herbicides	
Application Equipment & Techniques	
Ground	
Air	
Spot Treatments	
Wiper Application	
CROPS	
BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES	
Method of Application	
General Use Precautions for Berries, Fruits, Nuts, Vegetables, and Vines	
Tank Mixtures with Residual Herbicides and 2,4-D for Berries, Fruits, Nuts, Vegetables, and Vines	
Hard to Control Weed Recommendations in Citrus (Florida and Texas Only)	
Perennial Grass Suppression (Chemical Mowing) of Orchard Floors	
Bahagrass	
Bermudagrass	
Cool Season Grass Covers	
CHEMICAL FALLOW-ECOFALLOW SYSTEMS	
Method of Application	
Weeds Controlled and Rates	
Continuous Winter Wheat or Winter Wheat - Row Crop Rotations	
Continuous Small Seeded Spring Grain or Spring Grain - Row Crop Rotations	
Tank Mixtures for Chemical Fallow-EcoFallow Systems	
CONSERVATION COMPLIANCE/CONSERVATION RESERVE PROGRAM (CRP)	
CORN (FIELD, POPCORN, AND SEED CORN)	
Method of Application	
General Use Precautions	
Tank Mixtures for Corn	
FALLOWLAND AND POSTHARVEST USE	
FARMSTEAD (NONCROP)	
SOYBEANS	
Method of Application	
Preharvest	
General Use Precautions	
Tank Mixtures for Soybeans (Preplant/Preemergence)	

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

Method of Application

General Use Precautions

Preplant/Preemergence

Postemergence

Annual Weeds

Perennial Weeds

Tank Mixtures

Preharvest

WHEAT

Method of Application

General Use Precautions

Tank Mixtures for Wheat

WEEDS CONTROLLED

North/ South Region Annual Weed Control - Table 1

Western Region Annual Weed Control - Table 2

Annual Weed Control - Tankmix with Banvel Dicamba or 2,4-D - Table 3

Perennial and Woody Plant Weed Control and Weed Management-Alone or in Tankmix with

Banvel Dicamba or 2,4-D - Table 4

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.

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.

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 6.4 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 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.

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.

GENERAL INFORMATION

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

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

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

GENERAL USE PRECAUTIONS

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

APPLICATION DIRECTIONS

Timing

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

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

Rates

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

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

SPRAY ADDITIVES

Surfactants/Wetting Agents

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

Ammonium Sulfate (AMS)

Control of annual and perennial weeds with TOUCHDOWN 5 may be improved by adding dry ammonium sulfate at 1 - 2% by weight or 8.5 - 17 pounds per 100 gallons of water. Liquid formulations of AMS may be used at an equivalent rate. ~~Use AMS in conservation compliance programs; chemical fallow-ecofallow systems; noncrop areas; 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.

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. Drift may cause damage to any vegetation contacted to which treatment is not intended.
- Drift control additives may be used with TOUCHDOWN 5. Read and follow the manufacturer's directions for use.
- All aerial equipment must be properly maintained and washed to remove product residues after use.

Broadcast Applications

Ground

Applications should be made in 3 to ~~30~~ 40 gallons of water per acre.

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

Air

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

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

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

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

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

Spot Treatments

For annual weeds less than 6 inches, use a 0.4 to 0.75% v/v solution (3 quarts TOUCHDOWN 5/100 gallons of finished spray solution). For annual weeds over 6 inches, use a 1.25% to 1.5% v/v solution. Use a 1 to 2% v/v solution for most perennials (see TABLE 4 for specific rates and timing). When using motorized spot spray equipment (rider bar), use a 3% v/v solution. See Spot Spray Dilution Table below for rates of TOUCHDOWN 5/volume of finished spray solution. Spray the solution on actively growing weeds until uniformly wet but not to the point of runoff. Retreat 14-21 days later if regrowth occurs.

TOUCHDOWN 5 Herbicide 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	0.8 pints	3.2 pints
0.75%	1 fl oz	0.6 pints	1½ 1.5 pints	3 quarts
1%	1⅓ 1.3 fl ozs	0.8 pints	2 pints	1 gallon
1.25%	1⅔ 1.6 fl ozs	1 pint	2½ 2.5 pints	5 quarts
1.5%	2 fl ozs	1¼ 1.25 pints	3 pints	6 quarts
2%	2⅔ 2.6 fl ozs	1½ 1.5 pints	4 pints	2 gallons
3%	4 fl ozs	2½ 2.5 pints	6 pints	3 gallons

Wiper Application

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

CROPS

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

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

BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES

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

BEARING CROPS

Almond
Apple
Apricot
Beechnut
Brazil nut
Butternut
Calamondin
Cashew
Cherry (sweet, sour, tart)
Chestnut
Chinquapin
Chironja
Citron
Citrus Citron
Crabapple
Filbert (Hazelnut)
Grapefruit
Grapes (all)
Hickory nut
Kumquat
Lemon
Lime
Loquat
Macadamia
Mandarin
Mayhaw
Nectarine
Orange (all)
Oriental Pear
Peach
Pear
Pecan
Plum (all)
Plumcot
Prune (fresh)
Pummelo
Quince
Satsuma Mandarin
Tangelo
Tangerine
Tangor
Walnut (Black, English)

NONBEARING CROPS

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

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

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

GENERAL USE

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

Multiple applications may be necessary to control certain perennial weeds. ~~and weeds originating from underground parts (rhizomes, stolons, tubers) that are initially untreated.~~ Do not apply more than 6.4 12.8 pints of TOUCHDOWN 5 per acre per year. For residual weed control, tank mix TOUCHDOWN 5 with residual herbicides as prescribed in the **TANK MIXTURES FOR BERRIES, FRUITS, NUTS, VEGETABLES, AND VINES** section, or make multiple applications.

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

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

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

TOUCHDOWN 5 can be tank mixed with the following herbicides for control or suppression of emerged annual and perennial weeds provided that the tankmix product label allows use of the product. Refer to the **WEEDS CONTROLLED** section, beginning on Page _____, for application rates and timing. Apply TOUCHDOWN 5 at 1.2 to 6.4 pints/A in these tankmixes 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.

DEVIRINOL®
Direx®
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.

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

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

Weed Species	Rate of TOUCHDOWN 5 (Pints per Acre)			
	1.6	3.2	4.8	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.

West of the Rocky Mountains:

Apply 12 fluid ounces of TOUCHDOWN 5 in 3 to 10 gallons of water per acre. Make the application 2 weeks after complete green-up or after 3 to 4 inches of regrowth following mowing. A sequential application can be used when regrowth occurs.

For Partial Control and Burndown:

TOUCHDOWN 5 can be used for burndown and partial control of bermudagrass at 1.6 to 3.2 pints in 3 to 20 gallons of water per acre. Use 1.6 pints east of the Rocky Mountains and 3.2 pints west of the Rocky Mountains.

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

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

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

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

CHEMICAL FALLOW - ECOFALLOW SYSTEMS

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

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	1/2
Barley	<i>Hordeum vulgare</i>	12	2/3 - 1
Barnyardgrass	<i>Echinochloa crus-galli</i>	6	
Bluegrass, annual	<i>Poa annua</i>	6	
Bluegrass, bulbous	<i>Poa bulbosa</i>	6	
Brome, downy	<i>Bromus tectorum</i>	6	
Brome, Japanese	<i>Bromus japonicus</i>	6	
Chickweed	<i>Stellaria media</i>	6	
Mustard, blue	<i>Chorispora tenella</i>	6	
Mustard, tansy	<i>Descurainia pinnata</i>	6	
Mustard, tumble	<i>Sisymbrium altissimum</i>	6	
Mustard, wild	<i>Brassica kaber</i>	6	
Rye	<i>Secale cereale</i>	12	
Ryegrass, Italian	<i>Lolium multiflorum</i>	12	
Sandbur, field	<i>Cenchrus incertus</i>	12	
Stinkgrass	<i>Fragrostis cillianensis</i>	6	
Wheat	<i>Triticum aestivum</i>	18	
Witchgrass	<i>Panicum capillare</i>	12	
Cheat	<i>Bromus secalinus</i>	6	1 - 1 1/4
Cocklebur	<i>Xanthium strumarium</i>	12	
Corn	<i>Zea mays</i>	6	
Crabgrass	<i>Digitaria</i> spp.	12	
Field pennycress	<i>Thlaspi arvense</i>	6	
Falseflax, smallseed	<i>Camella microcarpa</i>	12	
Goatgrass, jointed	<i>Aegilops cylindrica</i>	6	
Henbit	<i>Lamium amplexicaule</i>	6	
Kochia	<i>Kochia scoparia</i>	6	
Lambsquarters, common	<i>Chenopodium album</i>	6	
Oats, wild	<i>Avena fatua</i>	12	
Panicum, fall	<i>Panicum dichotomiflorum</i>	12	
Shepherdspurse	<i>Capsella bursa-pastori</i>	6	
Sowthistle, annual	<i>Sonchus oleraceus</i>	6	

**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	$\frac{2}{3}$ + Banvel dicamba
Cocklebur	<i>Xanthium strumarium</i>	12	$\frac{2}{3}$ + 2,4-D or Banvel dicamba 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	$\frac{2}{3}$ to 1 + Atrazine or Bladex ¹
Barnyardgrass	<i>Echinochloa crus-galli</i>	6	
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 dicamba 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 dicamba 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 or Spring Grain/Row Crop Rotations

1) Post-Harvest Application

Apply TOUCHDOWN 5 to actively growing grasses and volunteer grain. Tank mix with Banvel dicamba 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 dicamba 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.

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 Dicamba	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.

CONSERVATION COMPLIANCE/ CONSERVATION RESERVE PROGRAM (CRP)

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

- **Renovation/Site Preparation:** Prior to application, removal of excessive vegetation by grazing, mowing, burning, etc. may improve control. When annual weeds have been mowed or grazed, wait for 3 to 4 inches of new growth before application. When perennial weeds have been mowed or grazed, allow regrowth to reach recommended stage (see **PERENNIAL WEED CONTROL** section, Table 4 for rates and 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 at 2-2.5 pints/A followed 7-10 days later with GRAMOXONE EXTRA at 2-2.5 pints/A	TOUCHDOWN 5 at 1.6-2.0 pints/A followed 10-14 days later with GRAMOXONE EXTRA at 2-2.5 pints/A

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

CORN (Field Corn, Popcorn, and Seed Corn)

METHOD OF APPLICATION: Before, during, or after planting but before crop emergence; spot spray; and 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 application rates and timing.

GENERAL USE PRECAUTIONS FOR CORN

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

TANK MIXTURES FOR CORN

For Control of Annual Weeds in a Residual Herbicide 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.

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

TOUCHDOWN 5 can be tank mixed with the following products:

AMBUSH®	Dual®	
Atrazine	Dual II®	Lightning™
Balance®	Dual II Magnum™	Linex®
Barvel ®	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®
Dicamba	Lasso®	2,4-D

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

FALLOWLAND AND POST HARVEST USE

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. 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~~ **on** the farm such as:

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

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

SOYBEANS

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

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

PREHARVEST

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

GENERAL USE PRECAUTIONS FOR SOYBEANS

- Spot application must be made at least 8 weeks before harvest.
- Wiper/wick application must be made at least 7 days before harvest.
- ~~Avoid contact with soybean foliage.~~
- Soybeans, except glyphosate-tolerant varieties, will be injured or killed when contacted with TOUCHDOWN 5.
- Make preharvest applications at least 7 days before harvest with no more than 1.6 pints/acre.
- Do not graze or harvest for hay following harvest aid application.
- Do not apply more than ~~6.4~~ 12.8 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 (PREPLANT/PREEMERGENCE)

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~~ 12.8 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 products:

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

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

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

METHOD OF APPLICATION: Before, during, or after planting, postemergence, and preharvest in soybean varieties which have been genetically modified to be tolerant to glyphosate based herbicides. Follow directions listed in the **APPLICATION DIRECTIONS, SPRAY ADDITIVES,** and **APPLICATION EQUIPMENT & TECHNIQUES** sections. Refer to **WEEDS CONTROLLED** section, beginning on Page _____ for application rates and timing.

GENERAL USE PRECAUTIONS FOR GLYPHOSATE-TOLERANT SOYBEANS

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

PREPLANT/PREEMERGENCE

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

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

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

POSTEMERGENCE**ANNUAL WEEDS**

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

PERENNIAL WEEDS

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

TANK MIXTURES

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

Basagran®	Pursuit
Classic®	REFLEX
FLEXSTAR	Reliance™ STS®
FUSILADE	Scepter
FUSION	Synchrony® STS®
KARATE	WARRIOR
Pinnacle®	

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

PREHARVEST

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

WHEAT

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

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

GENERAL USE PRECAUTIONS FOR WHEAT

- Apply up to 14 days before forage and hay harvest; and up to 8 weeks before grain and straw harvest.
- ~~Avoid contact with wheat foliage.~~
- Crop plants contacted by TOUCHDOWN 5 will be injured or killed.
- Do not apply more than ~~6.4~~ 12.8 pints per acre per year.

TANK MIXTURES FOR WHEAT

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

~~Barvel Dicamba~~
Hoelon®
2,4-D

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

WEEDS CONTROLLED

Water volumes of 3 to 30 40 gallons per acre by ground equipment and 3 - 15 gallons by air are recommended. Use the minimum spray volume that provides adequate coverage.

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

Apply to actively growing weeds.

MAP POSITIONED HERE

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

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

WEED SPECIES	SCIENTIFIC NAME	TOUCHDOWN 5 RATES PINTS PER ACRE				
		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		
Bristly starbur	<i>Acanthospermum hispidum</i>		0.8-1.2	1.2-1.6		
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			
Burcucumber	<i>Sicyos angulatus</i>		1.2	1.6		
Burgherkin	<i>Cucumis anguria</i>	1.2-1.6	1.6-2.4			
Buttercup ³	<i>Ranunculus spp.</i>	1.2-1.6				
Camphorweed	<i>Heterotheca subaxillaris</i>		2.4			
Carolina geranium ^{3 4}	<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	
Citronmelon	<i>Citrullus lanatus</i>	1.2-1.6	1.6-2.4			
Cocklebur, common	<i>Xanthium strumarium</i>		0.8	0.8-1.2	1.2-1.6	1.6-2.4
Corn ^{4 5}	<i>Zea mays</i>			0.8	1.0-1.6	
Crabgrass ^{5 6}	<i>Digitaria spp.</i>		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 4}	<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>Conyza 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	
Florida beggarweed	<i>Desmodium tortuosum</i>		0.8-1.2	1.2-1.6		
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		
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 ^{3,4}	<i>Sesbania exaltata</i>	1.2	1.6-2.4			
Henbit ^{3,4}	<i>Lamium amplexicaule</i>		1.6	2.4		
Hophornbeam copperleaf	<i>Acalypha ostryifolia</i>	1.6	2.4			
Horseweed/Marestail	<i>Conyza canadensis</i>		0.8-1.2	1.2-1.6	1.6	1.6-2.4
Jimsonweed	<i>Datura stramonium</i>		1.6	2.4		
Johnsongrass, seedling	<i>Sorghum halepense</i>			1.0	1.2	2.4
Kochia ³	<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 serriola</i>		0.8-1.6	1.2-2.4		1.6-2.4
Morningglory ^{3,6,4,7}	<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 altissimum</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) ^{3,6,4,7}	<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
Shepherdspurse	<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>Brachiaria 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 pensylvanicum</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</i> spp.		0.8	1.2		1.6
Spurge	<i>Euphorbia</i> spp.		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 ^{6,7}	<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</i> spp.		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 Control will be reduced at the button stage.

^{4,5} When the predominant weed species include Carolina geranium, cutleaf eveningprimrose, fescue, hemp sesbania, henbit, morningglory, prickly sida, and vetch that are less than 6 inches tall, GRAMOXONE EXTRA should be considered as an alternative.

^{4,5} Will not control glyphosate-tolerant volunteer corn.

⁶ Plant diameter.

^{6,7} Multiple applications may be required.

33 442

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" 3"	6"	12"	18"
Barley	<i>Hordeum vulgare</i>		0.6-1.2	0.6-2.0	0.6-2.4
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> spp.			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 ²	<i>Zea mays</i>		0.8-2.0		
Crabgrass	<i>Digitaria</i> spp.			0.8-2.0	
Dwarf dandelion, Virginia	<i>Krigia virginica</i>			0.8-2.0	
Fall panicum	<i>Panicum dichotomiflorum</i>			0.8-2.0	
Falseflax, smallseed	<i>Camelina microcarpa</i>			0.8-2.0	
Fiddleneck	<i>Amsinckia</i> spp.		0.8-2.0		
Filaree	<i>Erodium</i> spp.			2.4-6.4	
Fleabane, hairy	<i>Conyza bonariensis</i>		0.8-2.0		
Foxtail	<i>Setaria</i> spp.		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> spp.		1.6-2.4		
Groundsel, common	<i>Senecio vulgaris</i>		0.8-2.0		
Henbit	<i>Lamium amplexicaule</i>		0.8-2.0		

Horseweed/Marestail	<i>Conyza canadensis</i>		0.8-2.0		
Johnsongrass, seedling	<i>Sorghum halepense</i>			0.8-2.0	
Kochia ³	<i>Kochia scoparia</i>	0.8-1.2	1.2-1.6		
Lambsquarters, common	<i>Chenopodium album</i>		0.8-2.0		
Morningglory ^{3, 4, 5}	<i>Ipomoea</i> spp.	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> spp.		1.6-2.4		
Oats	<i>Avena sativa</i>		0.6-1.2	0.6-2.0	0.6-2.4
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> spp.			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 irio</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> spp.		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 cilianensis</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	0.6-2.4
Witchgrass	<i>Panicum capillare</i>			0.8-2.0	

¹ In no-till systems, use 0.8-1.6 pints/A.

² Will not control glyphosate-tolerant volunteer corn.

³ Do not apply in the button stage.

⁴ Multiple applications may be required.

⁵ When the predominate weed species include morningglory less than six inches tall, GRAMOXONE EXTRA should be considered as an alternative.

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

WEED SPECIES	SCIENTIFIC NAME	MAXIMUM HEIGHT/ LENGTH	TOUCHDOWN 5 PINTS PER ACRE
Lettuce, prickly Morningglory Ragweed, common Ragweed, giant Smartweed, Pennsylvania Velvetleaf	<i>Lactuca serriola</i> <i>Ipomoea</i> spp. <i>Ambrosia artemisiifolia</i> <i>Ambrosia trifida</i> <i>Polygonum pennsylvanicum</i> <i>Abutilon theophrasti</i>	6"	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 dicamba and 2,4-D labels

TABLE 4
PERENNIAL AND WOODY PLANT WEED CONTROL AND WEED MANAGEMENT
TOUCHDOWN 5 RATES USED ALONE OR IN TANKMIX WITH
0.25 LBS A/A OF BANVEL DICAMBA 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 Dicamba	APPLICATION TIMING AND REMARKS
Alfalfa	<i>Medicago sativa</i>	1.5	2.4-4.0 4.8		At 6 to 8" stage or more after final cutting in fall. Deep till 7 days after treatment.
			0.8-1.6	Yes	At 6 to 8" stage or more for suppression.
Artichoke, Jerusalem ¹	<i>Helianthus tuberosus</i>	1.5	4.8-6.4		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	4.8-6.4		Early seedhead stage.
Barley, foxtail	<i>Hordeum jubatum</i>	1.5	0.8-1.6 1.6-3.2		For control up to 6" in height. 4-6" stage.
Bermudagrass	<i>Cynodon dactylon</i>	1.5	4.8 3.2-6.4		Seedheads present, may require retreatment.
Bindweed, field	<i>Convolvulus arvensis</i>	1.5	3.2-4.8 6.4		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 applications may be required.
			1.6-6.4		In California: 12" or greater runner length. Use high end of rate range where dense populations exist. For suppression on land which is irrigated and tilled, use 1.6 pints/A.
Blackberry	<i>Rubus</i> spp.	1.0	4.8-6.4		Apply after full leaf expansion. For best results, apply late summer or fall but before a killing frost.

Bluegrass, Kentucky	<i>Poa pratensis</i>	1.5	3.2-4.8		Boot to early seedhead stage.
			1.6-2.4		For suppression.
Brackenfern	<i>Pteridium aquilinum</i>	1.25	4.8-6.4		Fronds fully expanded and at least 18" long.
Bromegrass, smooth	<i>Bromus inermis</i>	1.5	1.6-3.2		Boot to early seedhead.
			0.8		For suppression.
Canarygrass, reed	<i>Phalaris arundinacea</i>	1.5	3.2-4.8		Boot to head.
Cattail	<i>Typha</i> sp.	1.5	4.8-6.4		Early head to early bud.
Clover, red Clover, white	<i>Trifolium pratense</i> <i>Trifolium repens</i>	1.5	4.8-6.4		Early head to early bud. May require retreatment.
			0.8-1.6	Yes	At 4 to 10" stage for suppression.
Cogongrass ¹	<i>Imperata cylindrica</i>	1.5	4.8-6.4		Late summer/fall greater than 18" in height. May require retreatment.
Dandelion	<i>Taraxacum officinale</i>	1.5	3-2 2.4-4.8		Early bud.
			0.8	Yes	Early bud.
Dayflower ¹	<i>Commelina</i> spp.	1.5	4.8-6.4		Less than 4" in height.
Dock, curly	<i>Rumex crispus</i>	1.5	3-6 3.2-4.8		Early bud.
			0.8-1.6	Yes	Early bud.

Dogbane, hemp	<i>Apocynum cannabinum</i>	1.5	3.2-6.4		Late bud to flower. May require retreatment.
			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	3.2-4.8		Actively growing, less than 12" in height.
Fescue ²	<i>Festuca</i> spp.	1.5	4.8-6.4		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	4.8-6.4		Less than 7" stage.
Guineagrass	<i>Panicum maximum</i>	1.0	4.8		7-10 leaf stage.
Horsenettle	<i>Solanum carolinense</i>	1.5	4.8 3.2-6.4		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 no-till areas. Allow 3-7 days before tillage.
			0.8-1.6		For burndown, apply when plants are 10-12" stage and allow 3 days before tillage.
Lantana, largeleaf	<i>Lantana camara</i>	1.0			For partial control, apply at or beyond bloom stage.
Milkweed, common	<i>Asclepias syriaca</i>	1.5	3.2-4.8		Late bud to early flower. May require retreatment.
			1.6	Yes	Late bud to early flower.
			0.8-1.6	Yes	Suppression.
Milkweed, honeyvine	<i>Ampelamus albidus</i>	1.5	3.2-4.8	Yes	Late bud to early flower. May require retreatment.
Muhly, wirestem	<i>Muhlenbergia frondosa</i>	1.5	1.6-3.2		6-8" actively growing. Use high end of rate range in non-tillage areas.
Mullein, common	<i>Verbascum thapsus</i>	1.5	4-8 3.2-6.4		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.
Nutsedge, purple Nutsedge, yellow	<i>Cyperus rotundus</i> <i>Cyperus esculentus</i>	1.5	0.8-4.8		Treat when most plants are in flower stage. Repeat applications may be required for dense populations of nutsedge and subsequent germination of dormant 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.

Orchardgrass	<i>Dactylis glomerata</i>	1.5	2.4-3.2		Apply 3.2 pints/A on plants at early boot to seedhead stage. For spring applications, use 3.2 pints/A and allow a minimum height of 10-12". Fall applications may be made on actively growing plants at the boot to early seedhead stage at 2.4-3.2 pints/A.
Pampasgrass	<i>Erianthus ravennae</i>	1.5			For partial control only; apply at or beyond boot stage.
Paragrass	<i>Bracharia mutica</i>	1.5	2.4-3.2		Early seedhead stage.
Phaseybean ¹	<i>Phaseolus lathyroides</i>	1.5	4.8-6.4		Less than 8" tall.
Poison ivy ¹	<i>Toxicodendron radicans</i>	1.5	6.4		Apply after full leaf expansion. For best results, apply late summer or fall but before leaves lose green color.
Poison oak ¹	<i>Toxicodendron toxicarium</i>				
Quackgrass	<i>Agropyron repens</i>	1.5	1.6-3.2		Apply at 6-10" stage in annual cropping systems followed by tillage. Use the higher rate on dense established stands. Allow 3 days before tillage.
			3.2-4.8		Apply at 6-10" stage if tillage is not performed following application.
Redvine ¹	<i>Brunnichia ovata</i>	1.5	0.8-2.4		Greater than 18" tall in September/October; retreatment will be required at rates less than 1.6 pint/A. Allow 12" of regrowth before retreatment.
Ryegrass, perennial	<i>Lolium perenne</i>	1.0	1.6-4.8		Boot to head or prior to frost; use higher end of rate range if no tillage will be performed following application.
Smallflowered Alexandergrass	<i>Bracharia subquadripa</i>	1.5	3.2-4.8		Less than 4" in height, actively growing.
Smartweed, swamp	<i>Polygonum coccineum</i>	1.5	2.4-6.4		Early bud, 12" stage.
			0.8	Yes	Early bud, 12" stage.

Spurge, leafy	<i>Euphorbia esula</i>	1.5	3.2		Greater than 12" tall in late summer or fall.
			0.8	Yes	Greater than 12" tall in late summer.
Sumac, dwarf ¹ Sumac, poison ¹ Sumac, smooth ¹	<i>Rhus copallina</i> <i>Toxicodendron vernix</i> <i>Rhus glabra</i>	1.5	3.2-6.4		Apply after full leaf expansion. For best results, apply late summer or fall but before leaves lose green color.
Sweet potato, wild	<i>Ipomea pandurata</i>	1.5			For partial control only, apply at or beyond flowering stage.
Switchgrass	<i>Panicum virgatum</i>	1.5	2.4-3.2		Boot to head stage.
Thistle, Canada	<i>Cirsium arvense</i>	1.5	3.2-4.8		Apply at bud to early flower stage. For fall applications or following mowing, allow a minimum of 6-8" rosette development.
Timothy	<i>Phleum pratense</i>	1.5	3.2-4.8		Boot to head; wait 3 days before tillage.
Torpedograss ¹	<i>Panicum repens</i>	1.5	6.4		At or beyond seedhead for suppression.
Trumpetcreeper ¹	<i>Campsis radicans</i>	1.5	3.2-4.8		Late September/October applications on actively growing plants, retreatment may be required.
Vaseygrass	<i>Paspalum urvillei</i>	1.5	4.8-6.4		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	6.4		Full leaf expansion.
Wheatgrass, Western	<i>Agropyron smithii</i>	1.5	3.2-4.8		Boot to head.

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

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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!

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