# ZENECA Ag Products



### A Weed, Grass, and Harvest Aid Herbicide RESTRICTED USE PESTICIDE

#### **Due to Acute Toxicity**

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

## THIS PRODUCT MAY NOT BE USED FOR REFORMULATION OR REPACKAGING, EXCEPT AS MAY BE AUTHORIZED BY WRITTEN AGREEMENT FROM ZENECA.

#### 

Contains 2.5 pounds paraquat cation per gallon.

Contains stench (odor) and emetic.

EPA Reg. No. 10182-280

# 

# PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### ONE SWALLOW CAN KILL!

SYMPTOMS ARE PROLONGED AND PAINFUL. ONSET OF SYMPTOMS MAY BE DELAYED FOR UP TO 3 DAYS AFTER SWALLOWING.

- DO NOT USE OR STORE IN OR AROUND THE HOME.
- DO NOT REMOVE CONTENTS EXCEPT FOR IMMEDIATE USE.
- NEVER PUT INTO FOOD, DRINK, OR OTHER CONTAINERS.

#### STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: IMMEDIATELY induce vomiting by touching back of throat with finger. Administer fluids and induce further vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. GET TO A HOSPITAL OR PHYSICIAN FAST. PROMPT TREATMENT IS ESSENTIAL AND MUST BE INITIATED BEFORE SIGNS AND SYMPTOMS APPEAR.

IF ON SKIN: IMMEDIATELY wash with soap and water. Prolonged contact will cause severe irritation. Contact with irritated skin or a cut or repeated contact with intact skin may result in poisoning. GET MEDICAL ATTENTION.

IF IN EYES: IMMEDIATELY wash eyes with water for at least 15 minutes and get medical attention. Contact may cause eye injury. CALL A PHYSICIAN.

IF INHALED: IMMEDIATELY remove victim to fresh air or get away from spray mist. Exposure may cause irritation, nose bleeds, and may lead to poisoning. Stop and check spray procedure. The odor of this product is from the stenching agent which has been added, not from paraquat.

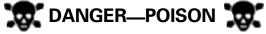
#### Read and follow PRECAUTIONARY STATEMENTS.

NOTE TO PHYSICIANS: CALL ZENECA MEDICAL EMERGENCY INFORMA-TION NETWORK 1-800-327-8633 (Dial 1-800-F-A-S-T-M-E-D) at any hour to obtain toxicology and medical management consultation, a supply of bentonite clay, and paraquat analysis. Symptoms following ingestion may be delayed up to 3 days. To be effective, treatment for paraquat poisoning must begin IMMEDIATELY. Treatment consists of binding paraquat in the gut with suspensions of bentonite clay or charcoal and removal of paraquat from the blood by prolonged charcoal hemoperfusion or continuous hemodialysis. FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL 1-800-F-A-S-T-M-E-D (327-8633).

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC, 1-800-424-9300.

#### **PRECAUTIONARY STATEMENTS**

HAZARDS TO HUMANS AND DOMESTIC ANIMALS



FATAL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. CAUSES IRREVERSIBLE EYE DAMAGE. CAUSES SKIN IRRITATION. MAY CAUSE ALLER-GIC SKIN REACTION.

**DO NOT** get in eyes, on skin, or on clothing. **DO NOT** breathe spray mist. **WASH SPLASHES** from skin and eyes immediately.

#### **Personal Protective Equipment (PPE)**

Applicators and other handlers (other than mixers and loaders) must wear:

- · Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Mixers and loaders must wear:
- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Face shield
- Chemical-resistant apron

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## User Safety Recommendations

- 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.

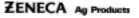
#### **ENVIRONMENTAL HAZARDS**

**WILDLIFE:** This product is toxic to wildlife. Birds and other wildlife in treated areas may be killed. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters.

**DRIFT:** GRAMOXONE<sup>®</sup> EXTRA herbicide is a contact herbicide that kills all green plant tissue. Do not apply under conditions involving possible drift to food, forage, or other plantings that might be damaged or the crops thereof rendered unfit for sale, use, or consumption. Do not apply when weather conditions favor drift from treated areas. To avoid drift, do not make aerial applications during periods of thermal inversion. Refer to the local State laws, regulations, and guidelines for proper application to avoid off-target movement.

**CHEMICAL HAZARD:** This product reacts with aluminum to produce hydrogen gas which may form a highly combustible gas mixture. Such gas could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette, or other ignition source. Do not mix or store in containers, spray tanks, nurse tanks, or such systems made of aluminum or having aluminum fittings. After dilution with water to spray concentrations, spray systems made of, or containing aluminum parts, may be used but should not be used for extended (overnight) storage.

**EQUIPMENT/CONTAINER:** Flush all spray equipment with water after use each day. GRAMOXONE EXTRA is corrosive to aluminum. Aluminum spray equipment and aluminum aircraft structures that are exposed to spray solution or spray drift should be flushed thoroughly with water immediately after 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 WAR-RANTY 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 LIABIL-ITY 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) RESULT-ING 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.

#### DIRECTIONS FOR USE

It is a violation of Federal law and may endanger the applicator or third parties to use this product without complying with all label directions and warnings.

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 (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

For Preplant or Preemergence (Broadcast or Banded), Chemical Fallow, Postemergence Directed Spray, and Dormant Season Applications, and "Between Cutting" Applications in Alfalfa: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

For Harvest Aid and Desiccation Applications: Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry into 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
- Protective eyewear

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH DANGER STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FED-ERAL REGULATIONS. READ STATEMENT OF PRACTICAL TREATMENT AND PRECAUTIONARY STATEMENTS.

# NOTE: DO NOT USE AROUND HOME GARDENS, SCHOOLS, RECREATIONAL PARKS, GOLF COURSES, OR PLAYGROUNDS.

#### DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

**IMPORTANT:** The effect of swallowing GRAMOXONE EXTRA is far more severe than that which usually results from skin contact or inhalation of spray mist. This product should not cause injury if used according to label instructions. Follow the label **as if your life depends on it**.

#### **GENERAL INFORMATION**

GRAMOXONE EXTRA is a contact herbicide used to control or suppress a broad spectrum of emerged weeds. GRAMOXONE EXTRA controls most small annual weeds—both broadleaves and grasses, and suppresses perennial weeds by destroying green foliage. GRAMOXONE EXTRA can also be used as a crop desiccant at harvest.

GRAMOXONE EXTRA is formulated as a liquid which contains 2½ pounds of active ingredient per gallon. The formulation is green in color and contains a nontoxic odor, and an emetic (an agent which will induce vomiting if the product is swallowed). The green color and odor are included in the formulation to help prevent accidental ingestion of GRAMOXONE EXTRA.

GRAMOXONE EXTRA is rapidly absorbed by green plant tissue and interacts with the photosynthetic process to produce superoxides which destroy the plant cells. GRAMOXONE EXTRA requires actively growing green plant tissue to function. Thorough coverage of all green foliage is essential for effective weed control. GRAMOXONE EXTRA is not as effective on drought-stressed weeds, weeds with little green foliage (i.e., mowed or cut weeds), or mature woody bark of trees and vines.

Clay and organic matter rapidly tie up GRAMOXONE EXTRA. As a result, GRAMOXONE EXTRA has no residual soil activity to affect later-planted crops or later-germinating weeds.

#### RAINFASTNESS

Because GRAMOXONE EXTRA is rapidly absorbed by the weed foliage, rain occurring 30 minutes or more after application will have no effect on the activity of GRAMOXONE EXTRA.

#### APPLICATION

Since GRAMOXONE EXTRA is a contact-type herbicide, it is essential to obtain complete coverage of target weeds to get good control. Improper application technique and/or application to large, stressed, or mown weeds will usually result in unacceptable weed control. Good coverage is also essential for proper performance in harvest-aid applications. See the following details for specific application instructions.

#### USE OF A NONIONIC SURFACTANT OR CROP OIL CONCENTRATE ALWAYS ADD ONE OF THE FOLLOWING:

Failure to add one of the following will result in reduced performance of GRAMOXONE EXTRA herbicide.

**Nonionic Surfactant (NIS)**—Add NIS containing 75% or more surface-active agent at 0.125% v/v (1 pint per 100 gallons), **OR** add a NIS containing 50% to 74% surface-active agent at 0.25% v/v (2 pints per 100 gallons), of the finished spray volume for ground applications. For aerial applications, add a NIS at 0.25% v/v (2 pints per 100 gallons) of the finished spray volume.

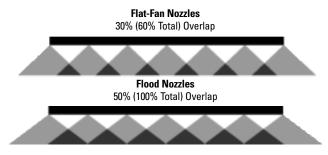
**Crop Oil Concentrate (COC)**—Add a nonphytotoxic COC containing 15% to 20% approved emulsifier, at 1.0% v/v (1 gallon per 100 gallons) of the finished spray volume for ground applications. For aerial applications, add 1 pint of COC per acre.

#### **NOZZLE SELECTION**

The use of flat-fan nozzles will result in the most effective application of GRAMOXONE EXTRA herbicide. Flood nozzles are generally not as good as flat fans since they produce large uneven droplets. The use of flood nozzles may result in reduced weed control due to inadequate coverage.

WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE, USE **ONLY** FLAT-FAN NOZZLES AS RECOMMENDED IN THE FOLLOWING CHART.

RECOMMENDED NOZZLES, PRESSURES, AND SETUP						
	Nozz	е Туре				
	Flat-Fan	Flood				
Maximum Size	8	15				
Spray Pressure (at nozzle)	30 to 50 psi	30 to 50 psi				
Maximum Nozzle Spacing	30 inches	40 inches				
Direction of Spray Pattern	Down	Down				
Maximum Speed	10 mph	10 mph				
Spray Overlap (at each edge)	30%	50%				



Using nozzles, pressures, or setups different from the above chart will result in reduced control.

#### SPRAY CARRIER

Always use clean water (free of mud or clay), clear liquid nitrogen, or complete clear liquid fertilizers as the carrier when spraying GRAMOXONE EXTRA herbicide. Muddy water, or suspension-type fertilizers containing clay, can inactivate GRAMOXONE EXTRA. Never use suspension-type fertilizers containing clay as the spray carrier. If using a complete clear liquid fertilizer containing high phosphate levels as the spray carrier, always use the higher rate of GRAMOXONE EXTRA and surfactant.

**NOTE:** When using liquid fertilizers such as 28% N as a carrier, it is important that nonionic surfactant still be used with GRAMOXONE EXTRA herbicide. Liquid fertilizer carriers cannot substitute for surfactant.

#### **RATES OF GRAMOXONE EXTRA**

Follow recommended rates listed with each use of GRAMOXONE EXTRA herbicide. Use the higher label rates when weeds are dense or large. Also, use higher label rates for harvest aid when crop vegetation is dense.

#### **SPRAY VOLUME**

Follow recommended minimum spray volumes listed with each use of GRAMOXONE EXTRA herbicide. These are **minimum** volumes only, and spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage.

WHEN SPRAYING LESS THAN 20 GALLONS OF SPRAY CARRIER PER ACRE, TARGET WEEDS SHOULD NOT EXCEED 6 INCHES IN HEIGHT.

#### **DRIFT MINIMIZATION**

**DO NOT** spray if conditions of thermal inversion exist, or if wind direction and speed may cause spray drift onto adjacent areas. With both aerial and ground applications, the use of a drift control or spray deposition additive (in accordance with label directions) may reduce the potential for drift to occur. **Drift minimization is the responsibility of the applicator**. Refer to the local State laws, regulations, and guidelines for proper application to avoid off-target movement.

When GRAMOXONE EXTRA is applied at less than 10 gallons per acre finished spray volume, a drift control or spray deposition additive **SHOULD** be used. Refer to the additive label for use directions.

#### **APPLICATION TIMING**

**GRAMOXONE EXTRA should be applied to emerged weeds when they are small. Weeds 1 inch to 6 inches in height are the easiest to control.** Larger weeds may be more difficult to control. When weeds have been grazed or mowed, thus removing much of the green foliage, allow the weeds to regrow to a height of 2 to 4 inches before spraying if possible. Similarly, when forage or grain crops have been harvested prior to spraying, weeds present in the field will also have been cut. To allow for adequate green foliage to remain on weeds in this situation, raise cutter bars as high as possible from the ground to cut stubble and weeds at a greater height.

#### **BURNDOWN OF GRASS COVER CROPS OR VOLUNTEER CEREALS**

When using GRAMOXONE EXTRA for control of grass cover crops or volunteer cereals, best results are obtained when GRAMOXONE EXTRA is applied **prior** to tillering or after boot stage. This is especially important with a wheat cover crop or volunteer wheat. Treatments made between tillering and boot stage will generally not provide complete control. Do not expect complete control of perennial cover crops.

#### **ENVIRONMENTAL CONDITIONS**

GRAMOXONE EXTRA is active over a wide range of environmental conditions. Cool weather (below 55°) will slow the activity of GRAMOXONE EXTRA, as will cloudy, overcast weather, but will not affect performance.

In dry areas, dust stirred up by high winds or equipment tires can coat weed leaves and reduce GRAMOXONE EXTRA activity. Avoid applying GRAMOXONE EXTRA in extremely dusty conditions.

#### SPOT SPRAYING

When only small areas are to be sprayed with labeled applications, it is advantageous to mix small quantities of GRAMOXONE EXTRA herbicide. To aid in mixing small quantities, the following table should be consulted.

If the Broadcast Rate per Acre for GRAMOXONE EXTRA Herbicide is:	Add the Following Amount of GRAMOXONE EXTRA Herbicide to 1 Gallon of Water
1½ pints	⅓ fl. oz.
2 pints	¾ fl. oz.
2½ pints	½ fl. oz.
3 pints	⅔ fl. oz.

Always add  $\frac{1}{2}$  to  $\frac{1}{2}$  fluid ounce of a nonionic surfactant for each gallon of spray. When spot spraying in this manner, spray to thoroughly wet the foliage, but not to the point of runoff.

# TANK MIXING FOR IMPROVED BURNDOWN OF DIFFICULT WEEDS AND RESIDUAL WEED CONTROL

#### **Photosynthetic Inhibitor Herbicides**

Difficult weeds can often be controlled by tank mixing GRAMOXONE EXTRA with other herbicides. The addition of herbicides which are also photosynthetic inhibitors (PSI) will slow the activity of GRAMOXONE EXTRA, allowing GRAMOXONE EXTRA to thoroughly distribute itself within the treated leaf. The resulting level of control is usually greater than if GRAMOXONE EXTRA was applied alone.

GRAMOXONE EXTRA herbicide may be applied in tank mixture with the following PSI herbicides:

AAtrex <sup>®</sup> herbicide	Lariat <sup>®</sup> herbicide
Atrazine herbicide	Lexone <sup>®</sup> herbicide
Bicep <sup>®</sup> herbicide	Linex <sup>®</sup> herbicide*
Bicep Lite <sup>®</sup> herbicide*	Lorox <sup>®</sup> herbicide
Bladex <sup>®</sup> herbicide	Lorox Plus™ herbicide
Canopy <sup>®</sup> herbicide*	Preview <sup>®</sup> herbicide*
Extrazine <sup>®</sup> herbicide*	Princep <sup>®</sup> herbicide
Gemini <sup>®</sup> herbicide*	Sencor <sup>®</sup> herbicide
Griffex <sup>®</sup> herbicide*	

\*Not for use in California

Refer to respective product label(s) for rates of application, directions for use, limitations, cautions, and a list of weeds controlled.

#### Improved Weed Control with PSIs

Control of difficult weeds listed below and annual grass control will be enhanced by the addition of a PSI herbicide. For best results a second application is needed.

- MarestailPrickly LettucePennsylvania SmartweedLambsquartersVelvetleafMorninggloryMalva (Cheeseweed)CheatgrassFall PanicumKnotweedGiant RagweedVolunteer WheKochiaPerennial WeeCockleburBarnyardgrassTansymustardSodgaaa
  - Lambsquarters Morningglory Cheatgrass Knotweed Volunteer Wheat Perennial Weeds (suppression only) Barnyardgrass Broadleaf Signalgrass Sedges



#### Improved Control of Perennial and Annual Broadleaf Weeds

When perennial broadleaf weeds such as Canada thistle, bindweed, dandelion, etc., or difficult to control annual broadleaf weeds such as giant ragweed or morningglory are present, tankmixes with 2,4-D ester (Low Volatile), 2,4-DB or Banvel<sup>®</sup> herbicide, where labeled, will help improve control. Tank mixing the amine formulation of 2,4-D with GRAMOXONE EXTRA may result in reduced grass control.

#### **Order of Tank Mixing**

In general, GRAMOXONE EXTRA tankmixes with other products should be mixed as follows:

- 1. Fill spray tank  ${\ensuremath{{}^{\prime\prime}}}$  full with clean water or other approved carriers such as clear liquid fertilizer.
- 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 GRAMOXONE EXTRA to tank.
- 6. Add nonionic surfactant to tank.
- 7. 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.

Since many of the herbicides listed on this label are available in several types of formulations, it is advisable to perform a jar test to check physical compatibility.

#### LIMITATIONS, PRECAUTIONS, AND WARNINGS

 ${\rm DO}~{\rm NOT}$  use around home gardens, schools, recreational parks, or play-grounds.

In preplant and preemergence (to the crop) uses, do not apply to soils lacking clay minerals, i.e., peat, muck, pure sand, artificial planting media.

Seedbeds and plantbeds should be formed as far ahead of planting and treatment as possible to permit maximum weed and grass emergence prior to treatment.

Seeding or transplanting should be done with a minimum amount of soil disturbance.

Weeds and grasses emerging after application of GRAMOXONE EXTRA will not be controlled or suppressed.

Unless otherwise indicated, crop plants emerged at time of application may be severely injured or killed if contacted by sprays of GRAMOXONE EXTRA.

**PRODUCT PERFORMANCE CONCERNS:** Concerns with the performance of GRAMOXONE EXTRA must be reported to the retail dealer or to a ZENECA representative within 14 days of application. Weeds emerging after application or regrowth of perennial weeds do not constitute a legitimate product performance complaint.

#### SPECIFIC USE RECOMMENDATIONS

The following tables indicate use patterns, rates, minimum spray volumes, preharvest intervals, and other precautions, restrictions, and comments specific to each crop. Read and follow directions carefully.

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
<b>ALFALFA</b> New seedlings (California only)	Broadcast	See "TABLE 1" following "SPECIFIC USE RECOMMEN- DATIONS"	Ground: 10 gal. Air: 5 gal.	70	<ul> <li>Apply during late winter or early spring.</li> <li>Do not cut or harvest within 70 days after application.</li> <li>Do not apply more than once during the first growing season.</li> <li>Caution: Seedling alfalfa stands will be reduced and replanting may be necessary.</li> <li>Not recommended for seedling alfalfa grown for seed.</li> <li>Alfalfa foliage present at time of application will be burned.</li> </ul>
ALFALFA (No-till or conven- tional planting)	Preplant or Preemergence Broadcast or Banded Over Row	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	-	<ul> <li>Apply prior to emergence of the crop.</li> <li>Crop plants emerged at time of application will be killed.</li> <li>Seeding should be done with a minimum amount of soil disturbance.</li> </ul>
ALFALFA Dormant season on established plantings Region A—See map at end of Alfalfa section.	Broadcast	1.5 to 2.5 pints	Ground: 10 gal. Air: 5 gal.	42	<ul> <li>For control of weeds, including bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, and other winter annuals; and suppression of perennial weeds.</li> <li>Do not apply if <b>fall regrowth</b> following last fall cutting is greater than 6 inches, or if <b>spring regrowth</b> is more than 2 inches.</li> <li>Apply to well-established stands (at least 1 year old) after the crop is dormant.</li> <li>Alfalfa foliage present at the time of application will be burned which may reduce the yield of the first cutting.</li> <li>Do not cut or harvest within 42 days of application.</li> <li>Do not apply more than once per season.</li> <li>Tank mix with metribuzin (Lexone or Sencor) for improved burndown of weed vegetation and residual weed control. Consult the metribuzin product label for a list of weeds controlled, rates of application, and precautions.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
ALFALFA Dormant season Tankmix with Velpar® L herbicide Region A—See map at end of Alfalfa section.	Broadcast	1.0 to 1.5 pints	Ground: 10 gal. Air: 10 gal.	42	<ul> <li>For control of weeds such as chickweed, downy brome, and tansymustard.</li> <li>Use the 1.0 pint rate of GRAMOXONE EXTRA when weeds and grasses are less than 4 inches tall.</li> <li>Mix with 1 to 2 quarts of Velpar L per acre.</li> <li>Use the lower rate of Velpar L on loamy sands or sandy loams. Refer to Velpar L label for directions, limitations, cautions, and a list of weeds controlled.</li> <li>Apply once to established alfalfa stands during the dormant season.</li> <li>Do not apply if <b>fall regrowth</b> following last fall cutting is greater than 6 inches, or if <b>spring regrowth</b> is more than 2 inches.</li> <li>Do not apply to alfalfa during the first season after seeding.</li> <li>Temporary chlorosis may occur on alfalfa regrowth.</li> <li>Stress which may be caused in part by low fertility, disease, insects, winterkill, over cutting, drought, or frost may increase the chances of crop injury.</li> <li>DO NOT USE on gravelly or rocky soils, exposed subsoils, hardpan, sand, or poorly drained alkaline soils as crop injury, including mortality, may result.</li> <li>Do not cut or harvest within 42 days of application.</li> </ul>
ALFALFA Dormant Season On established plantings: Region B—See map at end of	Broadcast	13 to 24 fl. oz.	Ground: 10 gal. Air: 5 gal.	60	<ul> <li>For desiccation of weeds, including London rocket, sowthistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals; and suppression of perennial weeds.</li> <li>Apply during late fall or winter months after the last fall cutting and before first spring cutting.</li> </ul>
Alfalfa section. On fall-seeded, newly established stands less than 1 year old: Region A—See map at end of Alfalfa section.	Broadcast	13 to 24 fl. oz.	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>Do not apply if regrowth after grazing or cutting is more than 2 inches.</li> <li>Do not harvest within 60 days of application.</li> <li>CAUTION: Applications to alfalfa that is not dormant, or has broken dormancy, may result in stand and/or yield reductions. Replanting may be necessary. Green alfalfa foliage present at the time of application will be burned.</li> </ul>
On fall-seeded, newly established stands less than 1 year old: Region B—See map at end of Alfalfa section.	Broadcast	8 to 16 fl. oz.	Ground: 10 gal. Air: 5 gal.		<ul> <li>Total hay yield of first cutting may be reduced in alfalfa fields with severe weed infestation. This reduction will usually be directly proportionate to the loss of weed weight.</li> <li>Do not apply more than once per season.</li> <li>Tank mix with metribuzin (Lexone or Sencor) for improved burndown of weed vegetation and residual weed control in dormant established (at least 1 year old) alfalfa. Consult the metribuzin product label for a list of weeds controlled, rates of application, and precautions.</li> <li>Do not apply tankmix with metribuzin on newly established (less than 1 year old) alfalfa.</li> <li>California</li> <li>For desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle, and groundsel.</li> <li>Use high rate if ryegrass, shepherdspurse, sowthistle, or groundsel is present.</li> </ul>

SPECIFIC USE RECOMM					
Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
ALFALFA Between-cuttings treatment in established plantings (Includes first-year alfalfa) (All states east of the Rocky Mountains) Counties of: Del Norte Siskiyou Modoc Shasta Lassen Plumas Sierra Nevada	Broadcast		Ground: 10 gal. Region A	30	<ul> <li>Weeds much beyond the seedling stage and the stubble of weeds cut off during harvest will be less affected by this treatment.</li> <li>Apply immediately after alfalfa has been removed for hay or silage.</li> <li>Do not treat more than 5 days after cutting.</li> <li>CAUTION: First-year alfalfa stands and yields may be reduced if alfalfa is allowed to regrow more than 2 inches.</li> <li>Alfalfa foliage present at time of application will be burned.</li> <li>In arid areas where moisture is limited, weed control may be reduced.</li> <li>Do not cut or harvest within 30 days of application.</li> <li>Make 1 to 3 applications, as needed, during the growing season. These sprays may be applied in addition to a dormant application.</li> <li>For first-year alfalfa, do not apply more than twice during the first growing season.</li> </ul>
ALMONDS	Directed Spray	1 to 3 pints	Ground: 10 gal.	-	<ul> <li>Do not allow spray to contact green stems (except suckers) or foliage.</li> <li>Use a shield or wrap plant when spraying around young trees or vines.</li> <li>Do not graze treated areas.</li> <li>Do not feed cover crops grown in treated areas to livestock.</li> <li>Do not apply when nuts to be harvested are on the ground.</li> <li>For mature woody weeds, perennial weeds, late-germinating weeds, and green suckers, retreatment or spot treatments may be necessary.</li> </ul>
ASPARAGUS	Preplant or Preemergence Broadcast or Banded Over Row	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	-	<ul> <li>Apply prior to emergence of the crop.</li> <li>Crop plants emerged at time of application will be killed.</li> </ul>
ASPARAGUS Preemergence to established plantings at least 2 years old	Broadcast or Banded Over Row	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	6	<ul> <li>Apply prior to emergence of crop or after last harvest.</li> <li>Crop plants emerged at time of planting will be killed.</li> <li>May be tank mixed with Princep herbicide for residual control. Refer to Princep label for specific directions, limitations, cautions, and a list of weeds controlled.</li> </ul>
BEANS, DRY Sweet lupin White sweet lupin Grain lupin Adzuki beans Asparagus beans Black beans Broad beans Field beans Garbanzo beans Kidney beans Lablab beans Lima beans	Harvest Aid	1.0 to 1.5 pints	Ground: 20 gal. Air: 5 gal.	7	<ul> <li>Add spreader (nonionic) at 1 quart per 100 gallons of spray mix.</li> <li>For vining-type beans or bush-type with lush growth, use a single application of the higher rate.</li> <li>May also be applied as a split application. <b>DO NOT</b> make more than 2 applications or exceed a total of 1.5 pints per acre. The split application may improve vine coverage.</li> <li>Apply when the crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 40% (bush-type beans) or 30% (vine-type beans) of the leaves still green in color.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
BEANS, DRY (Cont'd.) Moth beans Mung beans Navy beans Pinto beans Rice beans Snap beans Tepary beans Urd beans Wax beans Blackeyed peas Chickpeas Cowpeas Crowder peas Southern peas Catjang Guar					<ul> <li><b>D0 NOT</b> apply when weather conditions favor spray drift. A drift control agent may be included to reduce spray drift.</li> <li>NOT REGISTERED FOR USE ON DRY BEANS IN CALIFORNIA.</li> </ul>
CACAO	Directed Spray	1.6 to 3.0 pints	Ground: 50 to 200 gal.	1	<ul> <li>Apply when weeds are succulent and growth is from 1 to 6 inches.</li> <li>For mature woody weeds, late-germinating weeds, and grasses and for perennials; retreatment or spot treatment may be necessary.</li> <li>Do not allow spray to contact cacao plants as injury may result. Use a shield for young trees.</li> <li>Do not spray under windy conditions.</li> <li>Do not graze treated areas or feed treated cover crops to livestock.</li> <li>NOT REGISTERED FOR USE ON CACAO IN CALIFORNIA.</li> </ul>
CHEMICAL FALLOW General Information			Ground: 5 gal. Air: 5 gal. See "PRECAUTIONS, RESTRICTIONS, AND COMMENTS"		<ul> <li>Use higher spray volumes for better coverage as density of stubble, crop residue, or weeds increase.</li> <li>To control volunteer wheat or downy brome, fall-applied treatments generally work best with GRAMOXONE EXTRA. If possible, tank mix with Atrazine or Bladex for maximum burndown and residual control.</li> <li>Apply from immediately after harvest up to emergence of the newly seeded crop as a broadcast or band treatment.</li> <li>Cut wheat as high as possible to avoid cutting weeds too short, and allow the weeds to grow at least 2 to 3 inches after harvest before applying GRAMOXONE EXTRA.</li> <li>The addition of Banvel or 2,4-D ester (Low Volatile) may aid in the suppression of emerged perennial broadleaf weeds and large annual broadleaf weeds.</li> <li>Refer to 2,4-D ester (Low Volatile), Banvel, or residual herbicide label(s) for directions, limitations, cautions, and a listing of weeds controlled.</li> <li>For extended weed control during the fallow period, tankmixes with registered residual herbicide combinations other than those listed on this label are permissible.</li> <li>Weeds taller than 6 inches may not be controlled.</li> <li>Weeds and grasses emerging after application will be killed.</li> <li>By ground application, apply 5 to 60 gallons of spray mix per acre. If applying at &lt;10 GPA by ground, utilize the following additional precautions: <ul> <li>Do not apply with floaters or exceed a speed of 10 mph</li> <li>Apply only in a tankmix with Atrazine at a minimum of 0.5 pound active ingredient per acre.</li> </ul> </li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
CHEMICAL FALLOW Continuous Wheat 2- to 3-Month Recropping Interval	Broadcast	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	-	<ul> <li>Make application at least 45 days prior to seeding.</li> <li>Use at least 1.6 pints of GRAMOXONE EXTRA per acre with a PSI (listing under "PHOTOSYNTHETIC INHIBITOR HERBICIDES") for volunteer wheat or downy brome control in the spring.</li> <li>Tank mix with Bladex for enhanced burndown; however, low rates (less than 2 pounds active ingredient) of Bladex may not provide complete control of volunteer wheat and downy brome.</li> <li>Refer to the Bladex label for specific use rates for your soil type, use directions, cautions, and a list of weeds controlled.</li> <li>Refer to the "CHEMICAL FALLOW GENERAL INFORMATION" section.</li> </ul>
<b>CHEMICAL FALLOW</b> Wheat-Fallow-Wheat Rotations (Fall applied after harvest; seeded 12 to 14 months later)	Broadcast	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	_	<ul> <li>Spray before weeds produce seed.</li> <li>Volunteer wheat and downy brome control are better with late August or early September applications.</li> <li>Tank mix with Atrazine and/or Bladex, Marksman® herbicide*, or Command® herbicide* for enhanced burndown and residual weed control.</li> <li>Tank mix with Sencor 75DF for burndown and residual con- trol of grass and broadleaf weeds.</li> <li>Refer to the product labels for specific use rates for your soil type, use directions, cautions, and a list of weeds controlled.</li> <li>Refer to the "CHEMICAL FALLOW GENERAL INFORMATION" section.</li> <li>*Not registered for use in California</li> </ul>
<b>CHEMICAL FALLOW</b> Wheat-Fallow-Wheat Rotations (Spring applied; seeded 3 to 5 months later)		Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	-	<ul> <li>Application should be made March 1 to April 15, prior to spring rains to conserve moisture.</li> <li>Volunteer wheat is easier to control after the boot stage, but soil moisture loss will be greater.</li> <li>Use at least 1.6 pints of GRAMOXONE EXTRA per acre with a PSI (listing under "PHOTOSYNTHETIC INHIBITOR HERBI-CIDES") for volunteer wheat or downy brome control in the spring.</li> <li>Tank mix with Bladex for enhanced burndown; however, low rates (less than 2 pounds active ingredient) of Bladex may not provide complete control of volunteer wheat and downy brome.</li> <li>Refer to the Bladex label for specific use rates for your soil type, use directions, cautions, and a list of weeds controlled.</li> <li>Refer to the "CHEMICAL FALLOW GENERAL INFORMATION" section.</li> <li>Tank mix with Sencor 75DF for burndown and residual control of grass and broadleaf weeds.</li> <li>Refer to the Sencor 75DF label for use rates for your soil type, use directions, cautions, and a list of weeds controlled.</li> </ul>
CHEMICAL FALLOW Wheat-Annual Crop'- Wheat Rotations (Fall applied in wheat stubble) 'Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.	Broadcast	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	_	<ul> <li>Tank mix with Atrazine and/or Bladex or Marksman* for enhanced burndown and residual weed control. Refer to the labels for specific use rates for your soil type, use direc- tions, cautions, and a list of weeds controlled.</li> <li>Spray after wheat harvest and before weeds produce seed. If grasses such as foxtails or barnyardgrass recover, respray before they develop seed.</li> <li>Volunteer wheat and downy brome are easier to control with late August to November applications.</li> <li>Refer to the "CHEMICAL FALLOW GENERAL INFORMATION" section.</li> <li>*Not registered for use in California</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
CHEMICAL FALLOW Wheat-Annual Crop- Wheat Rotations (Spring applied prior to planting an annual crop <sup>1</sup> ) <sup>1</sup> Approved Annual Crops are grain sorghum, corn, wheat, or proso millet.	Broadcast	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	_	<ul> <li>Tank mix with Atrazine and/or Bladex for enhanced burn-down and residual weed control. Refer to the labels for specific use rates for your soil type, use directions, cautions, and a list of weeds controlled.</li> <li>Use at least 1.6 pints of GRAMOXONE EXTRA per acre with a PSI (listing under "PHOTOSYNTHETIC INHIBITOR HERBI-CIDES") for volunteer wheat or downy brome control in the spring.</li> <li>Tank mix with Bladex for enhanced burndown; however, low rates (less than 2 pounds active ingredient) of Bladex may not provide complete control of volunteer wheat and downy brome.</li> <li>Follow the Atrazine recommendations pertaining to soil pH and recropping intervals.</li> <li>Refer to the "CHEMICAL FALLOW GENERAL INFORMATION" section.</li> </ul>
CLOVER AND OTHER LEGUMES <sup>1</sup> Dormant Season					
On established plant- ings: Region A—See map at end of Alfalfa section.	Broadcast	1.5 to 2.5 pints	Ground: 10 gal. Air: 5 gal.	60	<ul> <li>For desiccation of weeds, including London rocket, sow- thistle, rescue brome, wild oats, chickweed, ryegrass, bluegrass, cheatgrass, dogfennel, tansymustard, henbit, downy brome, and other winter annuals, and suppression of perennial weeds.</li> </ul>
On established plant- ings: Region B—See map at end of Alfalfa section.	Broadcast	13 to 24 fl. oz.	Ground: 10 gal. Air: 5 gal.	60	<ul> <li>Apply during late fall or winter months after the last fall cutting and before first spring cutting.</li> <li>Do not apply if <b>regrowth</b> after grazing or cutting is more than 2 inches.</li> </ul>
On fall-seeded, newly established stands less than 1 year old: Region A—See map at end of Alfalfa section.	Broadcast	13 to 24 fl. oz.	Ground: 10 gal. Air: 5 gal.	60	<ul> <li>Do not harvest within 60 days of application.</li> <li>CAUTION: Applications to clover or other legumes that are not dormant, or have broken dormancy, may result in stand and/or yield reductions. Replanting may be necessary. Green clover or other legumes foliage present, at the time of application, will be burned.</li> </ul>
On fall-seeded, newly established stands less than 1 year old: Region B—See map at end of Alfalfa section. <sup>1</sup> Other legumes include velvetbean, lespedeza, lupine, sainfoin, trefoil, vetch, crown vetch, and milk vetch.	Broadcast	8 to 16 fl. oz.	Ground: 10 gal. Air: 5 gal.	60	<ul> <li>Clover or other legumes foliage present at the time of application will be discolored and temporarily stunted.</li> <li>Total hay yield of first cutting may be reduced in clover or other legumes fields with severe weed infestation. This reduction will usually be directly proportionate to the loss of weed weight.</li> <li>Do not apply more than once per season.</li> <li>California</li> <li>For desiccation of weeds including bluegrass, ryegrass, shepherdspurse, chickweed, tansymustard, foxtail, sowthistle, and groundsel.</li> <li>Use high rate if ryegrass, shepherdspurse, sowthistle, or groundsel is present.</li> </ul>
CORN FIELD CORN POPCORN SWEET CORN SEED CORN (Used alone)	Preplant or Preemerg- ence Broadcast or Banded Over Row	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>Includes field, fresh, sweet, forage, fodder, and popcorn.</li> <li>Seedbeds should be formed as far ahead of planting and treatment as possible to permit maximum weed and grass emergence.</li> <li>Seeding should be done with a minimum amount of soil disturbance.</li> <li>Weeds and grasses emerging after application will not be controlled. Crop plants emerged at time of application will be killed.</li> </ul>
<b>CORN</b> Tank Mixes for No-Till/Reduced-Till Corn	Preplant or Preemerg- ence Broadcast or Banded Over Row	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.**	_	<ul> <li>Apply as a broadcast spray before, during, or after planting, but before crop emergence.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
<b>CORN</b> Tank Mixes for No-Till/Reduced-Till Corn (Cont'd.)					<ul> <li>For improved burndown or residual control, GRAMOXONE EXTRA may be tank mixed with the following herbicides:</li> <li>2,4-D Ester (Low Volatile) Harness<sup>®</sup>* AAtrex/Atrazine Harness Xtra* Banvel Lasso<sup>®</sup> herbicide Bicep Linex* Bicep Lite herbicide* Lorox Bladex Modown<sup>®</sup> herbicide Dual<sup>®</sup> herbicide Princep Extrazine* Prowl<sup>®</sup> herbicide Frontier<sup>®</sup>* Simazine Griffex* SURPASS<sup>®</sup> EC* Guardsman<sup>®</sup>* SURPASS 100* Harmony<sup>®</sup> Extra herbicide TOPNOTCH<sup>®</sup>*</li> <li>GRAMOXONE EXTRA may also be tank mixed with AMBUSH<sup>®</sup> insecticide.</li> <li>Refer to respective product label(s) for rates of application, directions for use, limitations, cautions, and a list of weeds or insects controlled.</li> <li>* Not for use in California</li> <li>** Refer to respective product labels to determine if these products can be applied by air.</li> </ul>
FIELD CORN POPCORN SWEET CORN SEED CORN	Postemerg- ence Directed Spray (Used alone) (Including Hooded or Shielded)	13 to 24 fl. oz.	Ground: 10 gal.	_	<ul> <li>Apply when weeds are actively growing.</li> <li>Use higher rate on larger or hard to control weeds. Weeds 6 inches or taller may not be controlled.</li> <li>Severe damage and/or complete kill can occur if spray contacts corn plants.</li> <li>HOODED OR SHIELDED SPRAYERS</li> <li>To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height.</li> <li>Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants.</li> <li>DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS</li> <li>Apply when corn is at least 10 inches tall with nozzles arranged to spray no higher than the lower 3 inches of corn stalks.</li> <li>Corn plants shorter than 10 inches may be injured and not recover (corn height measured from soil surface to top of whorl).</li> <li>For corn greater than 20 inches tall, arrange the nozzles to spray no higher than the lower ½ of the corn stalks.</li> <li>Corn foliage sprayed will be injured, but the crop will recover and develop normally.</li> </ul>
<b>FIELD CORN ONLY</b> Grain Fodder Forage Popcorn	Postemerg- ence Directed Spray USDA Witchweed Eradication Program	1.5 pints	Ground: 10 gal.	_	<ul> <li>Initiate sprays in late June to early July and repeat in early August if regrowth occurs.</li> <li>Follow application instructions in postemergence directed spray section above.</li> </ul>
FIELD CORN ONLY Grain Fodder Forage 2,4-D Amine Tankmix	Postemerg- ence Directed Spray USDA Witchweed Eradication Program	6.5 fl. oz. + 0.5 lb. 2,4-D Amine AE	Ground: 10 gal.	_	<ul> <li>Apply as a directed spray onto grassy weeds and witch-weed before witchweed blooms. Reapply if regrowth occurs.</li> <li>Follow application instructions in postemergence directed spray section above.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
<b>COTTON</b> (Used alone)	Preplant or Preemerg- ence	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>Apply prior to, during, or after planting, but before crop emergence.</li> <li>For fallow bed treatment, beds should be preformed to per- mit maximum weed and grass emergence prior to treatment.</li> <li>Seeding should be done with a minimum of soil disturbance.</li> </ul>
<b>COTTON</b> (California only; Used alone)	Preplant	12 fl. oz.	Ground: 10 gal. Air: 5 gal.	-	For control of volunteer barley in preformed seedbeds.
<b>COTTON</b> Goal® Herbicide Tankmix	Preplant or Fallow Bed	2 to 3 pints	Ground or Air: 10 gal.	_	Refer to Goal label for specific use directions and restrictions and weeds controlled.
<b>COTTON</b> Bladex Tankmix	Preplant	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	_	Refer to Bladex label for specific use directions and restrictions and weeds controlled.
<b>COTTON</b> Other Tankmixes	Preplant or Preemerg- ence	2 to 3 pints	Ground: 10 gal. Air: 5 gal.		<ul> <li>Apply as a broadcast spray before, during, or after planting, but before crop emergence.</li> <li>For improved burndown or residual control, GRAMOXONE EXTRA may be tank mixed with the following herbicides:         <ul> <li>Caparol® herbicide</li> <li>Harmony Extra*</li> <li>Cotoran® herbicide*</li> <li>Meturon® herbicide*</li> <li>Otton-Pro® herbicide</li> <li>MSMA*</li> <li>Dual*</li> <li>Zorial Rapid® herbicide</li> </ul> </li> <li>When tank mixing with Cotoran DF or Meturon DF, follow mixing instructions in the "ORDER OF TANK MIXING" section carefully and maintain constant agitation.</li> <li>When tank mixing with any of the herbicides listed above, refer to that product's label for specific directions and restrictions and for a list of weeds controlled.</li> <li>*Not registered for use in California</li> </ul>
EASTER LILIES (Field grown)	Preemerg- ence	2 to 3 pints	Ground: 10 gal.	_	• Do not apply more than twice per season.
FALLOW LAND Prior to planting of any crops approved on this labeling for preplant/ preemergence use	Preplant Broadcast to Fallow Land	1.3 to 2.7 pints	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>Fallow land may be between operations such as disking, ripping, plowing, leveling, irrigating, or listing for ground preparation purposes.</li> <li>Use for the control of weeds such as bluegrass, chickweed, henbit, downy brome, ryegrass, cheatgrass, dogfennel, tansymustard, London rocket, sowthistle, rescue brome, wild oats, volunteer cereals, and other winter annuals, and for suppression of perennial weeds or sedges.</li> <li>Use the higher rate for weeds approaching the maximum size of 6 inches.</li> <li>Do not make more than 2 applications during the fallow period.</li> <li>Allow maximum weed emergence prior to application to maximize the benefit of this use.</li> <li>Adhere to the preharvest intervals and other crop-specific restrictions for planted crops elsewhere on this label.</li> </ul>
<b>GRASSES</b> (For seed) (For use in seedbed preparation)	Preplant, At Planting, or Preemerg- ence	1.5 to 3.0 pints	Ground: 10 gal.	_	<ul> <li>Prepare the seedbeds and allow weeds to germinate.</li> <li>Apply GRAMOXONE EXTRA when weeds are at the 3- to 5-leaf stage.</li> <li>Repeat applications as necessary prior to grass emergence.</li> <li>Do not graze treated areas or use the seed or straw from treated areas for animal feed or bedding.</li> </ul>
<b>GUAR</b> Preharvest desiccation	Preharvest	1.5 pints	Ground: 10 gal.	4	<ul> <li>Apply after the pods are fully mature.</li> <li>Do not graze treated areas or use the treated forage for animal feed.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
GUAVA	Directed Spray	3 pints	Ground: 10 gal.	_	<ul> <li>Do not allow spray to contact green stems, fruit, or foliage.</li> <li>Do not graze treated areas.</li> <li>Do not feed cover crops grown in treated areas to livestock.</li> <li>For mature woody weeds, late-germinating weeds and grasses, and perennials, retreatment or spot spraying may be necessary.</li> </ul>
HOPS (ID, OR & WA only)	Directed Spray and/or Suckering and Stripping	1.5 pints	Ground: 10 gal.	14	<ul> <li>Retreatment or spot treatment may be necessary.</li> <li>Do not apply more than 3 times per season.</li> <li>Do not allow spray to contact green stems, foliage, flowers, or cones as injury may result.</li> <li>Do not allow animals to graze in treated hopyards.</li> <li>Hop vine refuse and silage may be fed to livestock.</li> <li>For suckering and stripping, spray only the basal 2 feet of the vines. Repeat as necessary.</li> <li>Experience with varieties other than CASCADE, YAKIMA CLUSTER, and BULLION is limited. If using GRAMOXONE EXTRA on other varieties than these, test the use pattern on a small number of vines of each variety to determine sensitivity to injury. Do not use on unlisted varieties if unacceptable crop injury occurs.</li> <li>Chemical Pruning: To burn back existing vines and obtain even emergence of subsequent vines, spray when vines are less than 3 feet tall.</li> <li>APPLICATION TO HOP VINES LESS THAN 6 FEET TALL MAY CAUSE UNACCEPTABLE INJURY.</li> </ul>
LENTILS	Harvest Aid	1.0 to 1.5 pints	Ground: 20 gal. Air: 7 gal.	7	<ul> <li>Add nonionic surfactant at 0.25% v/v (2 pints per 100 gallons) of the finished spray volume.</li> <li>May also be applied as a split application. <b>DO NOT</b> make more than 2 applications or exceed a total of 1½ pints per acre. The split application may improve coverage.</li> <li>Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 30% of the leaves still green in color.</li> <li><b>DO NOT</b> apply when weather conditions favor spray drift. A drift control agent may be included to reduce spray drift (see drift minimization section on label).</li> <li>NOT REGISTERED FOR USE ON LENTILS IN CALIFORNIA.</li> </ul>
<b>MINT</b> Peppermint Spearmint	Dormant Season	1.5 to 2.4 pints (2.4 pints = 38 fl. oz.)	Ground: 10 gal. Air: 5 gal.	-	<ul> <li>For suppression of weeds such as Italian ryegrass, prickly lettuce, groundsel, chickweed, downy brome, and bluegrass.</li> <li>Apply when crop is dormant before spring growth begins and when weeds are less than 6 inches tall.</li> <li>Do not apply more than 2.4 pints per acre per season.</li> <li>May be tank mixed with Sinbar<sup>®</sup> herbicide (terbacil) weed killer for improved contact activity and residual control of Italian ryegrass, prickly lettuce, and groundsel. Apply this tank mixture no more than once per season. Refer to the Sinbar label for rates, directions, cautions, and a list of weeds controlled.</li> </ul>
ONIONS (seeded) AND GARLIC	Preplant or Preemerg- ence	2 to 3 pints	Ground: 10 gal.	60 200 (CA only)	<ul> <li>Use the higher rate for heavy weed infestations or wild oat control. Apply only 1 application per season at the 3.0 pints per acre dosage.</li> <li>Allow maximum weed and grass emergence prior to treatment but apply prior to crop emergence.</li> <li>Apply a maximum of 3.0 pints per acre per season.</li> </ul>
PASSION FRUIT	Directed Spray	3 pints	Ground: 10 gal.	_	<ul> <li>Use a shield or wrap vine if bark is still green at application time.</li> <li>If application is to be made during harvest season, pick all fruit off the ground prior to application.</li> <li>Do not allow animals to graze on treated areas.</li> <li>Retreatment or spot treatment may be necessary.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
PINEAPPLE	Directed Spray	1.5 to 3.0 pints	Ground: 10 gal.	20	<ul> <li>Retreatment may be necessary on more mature weeds.</li> <li>Do not exceed 3 applications per season.</li> </ul>
ΡΟΤΑΤΟ	Preplant or Preemerg- ence Broadcast	1.5 pints	Ground: 10 gal. Air: 5 gal.	-	• Apply up to ground cracking, before potatoes have emerged.
POTATO (California, Washington, Oregon, Idaho only; Used alone)	Preplant Broadcast	12 fl. oz.	Ground: 10 gal. Air: 5 gal.	_	• For control of volunteer barley in preformed seedbeds.
RICE	Preplant or Preemerg- ence Broadcast	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>Apply as a broadcast spray before, during, or after planting, but before crop emergence. Use higher rates and spray volumes when vegetation is dense.</li> <li>Seeding should be done with a minimum amount of soil disturbance.</li> <li>Weeds and grasses emerging after application will not be controlled. Crop plants emerged at time of application will be killed.</li> <li>For improved or extended weed control, GRAMOXONE EXTRA may be tank mixed with other herbicides registered for this use. Refer to tankmix herbicide labels for specific directions, limitations, cautions, and a list of weeds controlled.</li> <li>Do not flood/flush within 48 hours of application in order to ensure complete kill of vegetation. If cool, cloudy, and/or wet weather delays speed of kill, do not flood/flush until complete kill is evident.</li> </ul>
SAFFLOWER	Preplant or Preemerg- ence Broadcast or Banded Over Row	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>Apply before, during, or after planting, but before crop emergence.</li> </ul>
<b>SAFFLOWER</b> (California only)	Preplant Broadcast	12 fl. oz.	Ground: 10 gal. Air: 5 gal.	_	• For control of volunteer barley in preformed seedbeds.
SMALL FRUITS Blackberries Boysenberries Raspberries Blueberries	Postemerg- ence Directed Spray	2 to 3 pints	Ground: 50 gal.	_	<ul> <li>Apply before emergence of new canes or shoots as injury to those canes or shoots can occur.</li> <li>Apply as a coarse spray to avoid crop injury from fine spray mist.</li> </ul>
Strawberries	Postemerg- ence Directed Spray	1.5 pints	Ground: 20 gal.	21	<ul> <li>Apply by directing spray between the rows and using shields to prevent spray contact with crop plants.</li> <li>Do not allow spray to contact strawberry plants as injury or excessive residues may result.</li> <li>Do not apply more than 3 times per season.</li> <li>Do not graze livestock in treated areas.</li> </ul>
SMALL GRAINS Barley Wheat	Preplant or Preemerg- ence	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	_	
SMALL GRAINS (Wheat only) Hoelon 3EC Tankmix	Preplant or Preemerg- ence	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 5 gal. Air: 5 gal.	-	<ul> <li>A tankmix with Hoelon 3EC will improve grass control.</li> <li>Apply when weeds are actively growing and 1 to 6 inches in height. Weeds 6 inches or taller may not be controlled.</li> <li>Do not apply this tankmix to barley as crop injury may result.</li> </ul>

Crop	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
SORGHUM (Grain)	Preplant or Preemerg- ence Broadcast or Band	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.	-	<ul> <li>Seedbeds should be formed as far ahead of planting as possible to allow maximum weed and grass emergence.</li> <li>Seeding should be done with a minimum amount of soil disturbance.</li> </ul>
<b>SORGHUM</b> (Grain) Tankmixes with Atrazine & 2,4-D ester (Low Volatile)	Preplant or Preemerg- ence	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.	_	• GRAMOXONE EXTRA may be tank mixed with Atrazine for improved preemergence or residual weed control. The addition of 2,4-D ester (Low Volatile) may aid in the suppression of perennial and annual broadleaf weeds emerged at the time of application. Refer to the specific tankmix herbicide label(s) for rates, directions, limitations, cautions, and a list of weeds controlled.
<b>SORGHUM</b> (Grain) Harmony Extra* Tankmix	Preplant or Preemerg- ence	1.5 to 3.0 pints	Ground: 10 gal.	-	<ul> <li>GRAMOXONE EXTRA may be tank mixed with Harmony Extra for improved preemergence or residual weed control.</li> <li>Refer to the Harmony Extra label for rates, directions, limi- tations, cautions, and a list of weeds controlled.</li> <li>*Not for use in California</li> </ul>
	Postemerg- ence Directed Spray (Including Hooded or Shielded)	13 to 24 fl. oz.	Ground: 10 gal.		<ul> <li>Apply when weeds are actively growing.</li> <li>Use higher rate on larger or hard to control weeds. Weeds 6 inches or taller may not be controlled.</li> <li>Severe damage and/or complete kill can occur if spray contacts sorghum plants.</li> <li>Do not exceed 2 postemergence-directed applications or exceed a total of 6.4 pints GRAMOXONE EXTRA per season.</li> <li>HOODED OR SHIELDED SPRAYERS</li> <li>To avoid excessive crop phytotoxicity, use a hooded or shielded sprayer with skids or wheels on the spray boom to maintain spray height.</li> <li>Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants.</li> <li>DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS</li> <li>Apply when sorghum is at least 12 inches tall when naturally standing.</li> <li>Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift.</li> <li>Use precision directed-spray application equipment adjusted so that no more than the lower 3 inches of the sorghum stalk is contacted by the application spray.</li> <li>Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
SOYBEANS	Preplant or Preemerg- ence	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.		<ul> <li>Do not exceed a total of 4.8 pints of GRAMOXONE EXTRA per season.</li> <li>Apply as a broadcast spray before, during, or after planting, but before crop emergence.</li> <li>For improved burndown or residual control, GRAMOXONE EXTRA may be tank mixed with the following herbicides:</li> <li>2,4-DB Linex* Scepter® herbicide* Canopy* Lorox Sencor Dual Lorox Plus Surflan® herbicide* Gemini* Modown Turbo® herbicide* Goal Preview*</li> <li>Harmony Extra* Prowl*</li> <li>Lasso Pursuit® herbicide* Lexone</li> <li>The rate of GRAMOXONE EXTRA to be used in these tank mixtures is dependent on weed height and growing conditions. Use the highest recommended rate of GRAMOXONE EXTRA under dry conditions or where the weed canopy is dense. Refer to the specific tankmix herbicide label(s) for rates, directions, limitations, cautions, and a list of weeds controlled.</li> <li>The lower rate may be used when weeds are less than 4 inches tall and a selective postemergence spray or cultivation will be made within 3 weeks after planting.</li> <li>Seeding should be done with a minimum amount of soil disturbance.</li> <li>Do not graze or harvest for forage or hay before the R3 stage of soybean development (early pod).</li> </ul>
SOYBEANS 2,4-D ester (Low Volatile) Tankmix	Preplant or Preemerg- ence	Weeds 1 to 3": 1.5 to 2.0 pints Weeds 3 to 6": 2.0 to 2.5 pints Weeds 6": 2.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.	-	<ul> <li>Apply 2,4-D ester (Low Volatile) at 0.35 to 0.475 pound active ingredient per acre at least 7 days prior to planting.</li> <li>Apply 2,4-D ester (Low Volatile) at 0.475 to 0.95 pound active ingredient per acre at least 30 days prior to planting.</li> <li>Do not apply 2,4-D ester (Low Volatile) prior to planting soybeans if you are not prepared to accept the results of soybean injury, including possible loss of stand and yield.</li> <li>Do not use the amine formulation as GRAMOXONE EXTRA activity may be reduced.</li> <li>May be tank mixed with residual herbicides listed above.</li> <li>Refer to the 2,4-D ester (Low Volatile) label for a list of rates, directions, limitations, cautions, and a list of weeds controlled.</li> </ul>
SOYBEANS	Postemerg- ence Directed Spray (Includes Hooded or Shielded)	3.5 to 6.0 fl. oz.	Ground: 10 gal.	-	<ul> <li>Apply when weeds are actively growing.</li> <li>For control of seedling johnsongrass, crabgrass, goosegrass, <i>Brachiaria</i>, Texas millet, and pigweed less than 2 inches tall, use the lower rate of GRAMOXONE EXTRA.</li> <li>For control of 2- to 4-inch red rice, <i>Brachiaria</i>, barnyard-grass, crabgrass, goosegrass, seedling johnsongrass, giant foxtail, and fall panicum, use 6.0 fluid ounces of GRAMOXONE EXTRA.</li> <li>For control of 2- to 3-inch sicklepod, purslane, pigweed, cutleaf ground cherry, and common ragweed, use 6.0 fluid ounces of GRAMOXONE EXTRA.</li> <li>For control of 2- to 4-inch grasses in mixture with common cocklebur, morningglory, and red rice, apply GRAMOXONE EXTRA at 6.0 fluid ounces per acre plus 0.2 pound active ingredient per acre of a 2,4-DB formulation.</li> <li>Refer to the 2,4-DB label for directions, limitations, and cautions.</li> <li>Do not graze or harvest for forage or hay.</li> <li>If needed make a second and final application 7 to 14 days later.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
SOYBEANS (Cont'd.)	Postemerg- ence Directed	3.5 to 6.0 fl. oz.	Ground: 10 gal.	_	<ul> <li>HOODED OR SHIELDED SPRAYERS</li> <li>Apply by directing spray between the rows and using hooded or shielded sprayers to prevent spray contact with crop plants.</li> </ul>
	Spray (Includes Hooded or				<ul> <li>Use higher rate on larger (&lt;6 inches) or hard to control weeds. Weeds 6 inches or taller may not be controlled.</li> </ul>
	Hooded or Shielded)				<ul> <li>Severe damage and/or complete kill can occur if spray intentionally or accidentally (including drift of fine droplets) contacts the plants.</li> </ul>
					DIRECTED SPRAY WITHOUT HOODED OR SHIELDED SPRAYERS
					• Do not treat if soybeans are less than 8 inches tall.
					<ul> <li>Use precision directed-spray application equipment adjusted so that no more than the lower 3 inches of the soybean plant is contacted by the application spray.</li> </ul>
					• Do not exceed 30 psi nozzle pressure or spray under condi- tions which may cause excessive drift.
					• Some crop injury will occur. The degree of injury is related to the precision of application and spraying conditions.
SUGAR BEETS	Preplant or	1.5 to 3.0 pints	Ground: 10 gal.	_	Use the higher rate for heavier weed infestations.
	Preemerg- ence		Air: 5 gal.		<ul> <li>Seeding or transplanting should be done with a minimum amount of soil disturbance.</li> </ul>
					<ul> <li>Crop plants emerged at time of application will be killed.</li> </ul>
					• Can be used in fallow bed/stale seedbed for weed control.
					• Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.
SUGARCANE	Postemerg- ence Directed Spray	-	-	_	<ul> <li>General Comments</li> <li>Apply as a hooded, shielded, or directed spray to avoid contact with cane foliage to prevent leaf burn and yield reduction.</li> </ul>
	(Includes Hooded or Shielded)				<ul> <li>Make a second and final application, if necessary, when new weed growth is 2 to 6 inches high.</li> </ul>
	Shielded)				<ul> <li>Do not graze treated areas or feed treated forage to livestock.</li> </ul>
— Florida —		1.5 pints	Ground: 50 gal.	-	<ul> <li>For optimum results, apply in early spring (March-April) when weeds are small.</li> </ul>
					<ul> <li>Do not apply after June 1 as cane growth may be stunted and yields reduced.</li> </ul>
— Hawaii —		1.5 pints	Ground: 20 gal.	_	• Do not apply after cane rows have closed in.
— Louisiana —		1 to 2 pints	Ground: 20 gal.	30	<ul> <li>For tiller control, apply when tillers are less than 18 inches high.</li> <li>Use the higher rate for heavier weed infestations or tiller growth.</li> </ul>
— Florida & Texas —	Harvest Aid	7 to 12 fl. oz.	Air: 5 gal.		Use higher rate under cool, cloudy weather conditions.     Apply 3 to 14 days before burning and baryest
SUNFLOWER	Preplant or Preemerg- ence Broadcast or Banded Over Row	2 to 3 pints	Ground: 10 gal. Air: 5 gal.		<ul> <li>Apply 3 to 14 days before burning and harvest.</li> <li>Apply before, during, or after planting but before crop emergence.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
SUNFLOWER (Cont'd.)	Preharvest Desiccation Broadcast	1.0 to 1.5 pints	Ground: 10 gal. Air: 5 gal.	7	<ul> <li>Apply when sunflower seeds reach physiological maturity (when seed moisture is 35% or lower). For many varieties, this corresponds to the time when the back of the heads are yellow and the bracts are turning brown.</li> <li>Do not graze treated areas or feed treated forage to livestock.</li> <li>Use the higher rate when crop stands or weed infestations are heavy.</li> </ul>
<b>TARO, DRYLAND</b> (Hawaii Only)	Postemerg- ence Directed Spray	1.5 to 2.5 pints	Ground: 10 gal.	180	<ul> <li>Do not allow spray to contact the taro plants as injury may result.</li> <li>Make the first application when weed growth is 1 to 4 inches high.</li> <li>Weeds emerging after the application will not be controlled.</li> <li>A single retreatment may be made; however, do not harvest dryland taro within 6 months of the last application.</li> </ul>
TREES AND VINES Orchards, Vineyards, Windbreak, Shade & Ornamental Trees Acerola Apples Apricots Avocados Bananas Beechnut Brazil Nut Butternut Cashew Cherries Chestnut Chinquapin Citrus Coffee Figs Filberts Grapes Hickory Nut Kiwi Fruit Macadamia Nuts Nectarines Olives Papayas Peaches Pears Pecans Pistachios Plums Prunes Walnuts Other shade and ornamental trees such as arborvitae, ash, elm, fir, oak, pine, etc.	Directed Spray	2 to 3 pints	Ground: 10 gal.	Kiwi Fruit 14 Pistachios 7 Plums 28 Olives 13 Figs 13	<ul> <li>Do not allow spray to contact green stems (except suckers), fruit, or foliage.</li> <li>Use a shield or wrap plant when spraying around young trees or vines.</li> <li>Do not graze treated areas.</li> <li>Do not feed cover crops grown in treated areas to livestock.</li> <li>Do not apply when figs, nuts, or olives to be harvested are on the ground.</li> <li>For grapes—treat when sucker growth is no more than 8 inches long. Late season applications to weeds should be made to avoid contact with desirable foliage.</li> <li>For kiwi fruit—Do not treat more than 3 times per year.</li> <li>For pistachios—Do not exceed 2 applications after shells split.</li> <li>For mature woody weeds, perennial weeds, late-germinating weeds, and green suckers, retreatment or spot treatment may be necessary.</li> <li>For plums—Do not harvest within 28 days after applications per season.</li> <li>For onives—Do not harvest within 13 days after application and do not exceed 4 postemergence-directed applications per season.</li> <li>For figs—Do not harvest within 13 days after application and do not exceed 5 postemergence-directed applications per season.</li> </ul>
TREES AND VINES Tankmixes	Directed Spray	2 to 3 pints	Ground: 10 gal.	Refer to other TM labels	<ul> <li>GRAMOXONE EXTRA may be tank mixed with registered residual herbicides listed below for combined emerged and residual weed control. Always refer to other herbicide label(s) for respective precautions, limitations, restrictions, dates, directions for use, and weeds controlled.</li> <li>GRAMOXONE EXTRA may be tank mixed with the following herbicides:         <ul> <li>Goal</li> <li>Surflan</li> <li>Devrinol<sup>®</sup> herbicide</li> <li>Solicam<sup>®</sup> herbicide</li> <li>Frincep</li> <li>Karmex</li> <li>Sinbar*</li> <li>Krovar<sup>®</sup> I and II herbicides</li> </ul> </li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
<b>TYFON</b> (New Hampshire only)	Preplant Preemerg- ence	2 to 3 pints	Ground: 10 gal.	-	<ul> <li>Seeding should be done with a minimum of soil disturbance.</li> <li>Weeds and grasses emerging after treatment will not be controlled.</li> <li>Crop plants emerged at time of application will be injured.</li> </ul>
VEGETABLES (Seeded or Tranplanted) Beans (Lima, Snap) Broccoli Cabbage Cantaloupe Carrots Cauliflower Chinese Cabbage Collards Cucumber Eggplant Lettuce Musk Melons Peas Pepino Peppers Pumpkin Squash Sweet Corn Tomatillo Turnips Tomatoes Watermelons	Preplant Preemerg- ence	1.5 to 3.0 pints	Ground: 10 gal. Air: 5 gal.		<ul> <li>Seedbeds or plantbeds should be formed as far ahead of treatment as possible to permit maximum weed emergence.</li> <li>Applications can be made as a banded or broadcast treatment before, during, or after planting but prior to the crop emergence.</li> <li>Use the higher rate for heavier weed infestations.</li> <li>Seeding or transplanting should be done with a minimum amount of soil disturbance.</li> <li>Crop plants emerged at time of application will be killed.</li> <li>Can be used in fallow bed/stale seedbed for weed control alone or tank mixed with Goal. Consult the Goal label for a list of weeds controlled, rates of application, and precautions.</li> <li>Do not harvest tomatoes within 30 days after application.</li> </ul>
<b>/EGETABLES</b> Eggplant Fomatoes Peppers	Directed Spray	1.5 pints	Ground: 10 gal.	_	<ul> <li>For control or suppression of emerged weeds between rows after crop establishment.</li> <li>Use precision directed-spray application equipment adjuste to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift.</li> <li>Apply when weeds are succulent and weed growth is less than 6 inches.</li> <li>Do not apply more than 3 applications per season.</li> <li>Do not allow animals to graze in treated areas.</li> <li>Do not harvest tomatoes within 30 days after application.</li> </ul>
VEGETABLES Chili Peppers (Hot) (New Mexico, Louisiana, and Texas)	Directed Spray	0.5 to 1.5 pints	Ground: 10 gal.		<ul> <li>For control or suppression of emerged weeds between row after crop establishment.</li> <li>Use precision directed-spray application equipment adjuster to prevent spray contact with crop plants. Do not exceed 30 psi nozzle pressure or spray under conditions which may cause excessive drift.</li> <li>Apply when weeds are succulent and weed growth is less than 6 inches.</li> <li>Use 8.0 to 12 fluid ounces to control 2- to 4-inch seedling johnsongrass, crabgrass, goosegrass, <i>Bracharia</i> spp., <i>Echinochloa</i> spp., and pigweed.</li> <li>Use 12 to 24 fluid ounces to control established bermudagrass and purple nutsedge.</li> <li>Do not apply more than 3 applications per season.</li> <li>Do not allow animals to graze in treated areas.</li> <li>Do not use on hot peppers within 8 weeks of transplanting.</li> </ul>

Сгор	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
VEGETABLES (California, Washington, Oregon, Idaho only) Lettuce Melon Sugar Beets Tomatoes	Broadcast	12 fl. oz.	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>For control of volunteer barley in preformed seedbeds.</li> <li>Do not harvest tomatoes within 30 days after application.</li> </ul>
VEGETABLES Rhubarb	Dormant	2 to 3 pints	Ground: 10 gal.	_	<ul> <li>Apply during dormant season before buds in crown begin to grow.</li> <li>Do not make more than 2 applications per season.</li> </ul>

#### ALFALFA

New Seedlings—Suppression and control of broadleaf weeds and grasses in new alfalfa seedlings grown for hay (California only).

#### Table 1.

	Rate	/Acre
For Control of:	For Suppression	For Control
Spikeweed (4 inches tall or less)	6.5 fl. oz.	13 to 16 fl. oz.
Volunteer Small Grain (8 inches tall or less)	6.5 to 13 fl. oz.	24 fl. oz.
Fiddleneck (6 inches tall or less)	6.5 to 13 fl. oz.	24 fl. oz.
Shepherdspurse	13 to 24 fl. oz.	-
Annual Bluegrass	-	13 to 24 fl. oz.
Chickweed	-	13 to 24 fl. oz.
Red Maids (6 inches tall or less)	_	13 to 24 fl. oz.

Do not use the 6.5 fluid ounce rate unless the alfalfa has at least 3 trifoliate leaves; the 13 fluid ounce rate unless the alfalfa has 6 trifoliate leaves; or rates **over** 13 ounces unless there are 9 trifoliate leaves.

#### **RESIN SOAKING**

Pines (Loblolly, Shortleaf, Longleaf, Slash, Virginia, Pond, Pitch, and Spruce Pines).

**Tree Selection:** Select trees to be treated from stands on sites not subject to periods of extreme drought stress as the desiccating effect of GRAMOXONE EXTRA to pines is accentuated during such periods, causing a reduction in the amount of oleoresin deposited in the xylem. Select trees to be treated from vigorous, nonstagnated stands, either natural or planted. In stagnated stands or commercial timber stands, plan treating with GRAMOXONE EXTRA herbicide not sooner than 3 years after a commercial thinning.

**Application Directions:** Apply GRAMOXONE EXTRA diluted in water (0.2% to 5% cation, wt./wt. basis, depending on the type of treatment method) to a suitable wound in the tree trunk to bring the treatment into contact with the xylem (sapwood). One of the following methods may be used:

**Bark Streaks or Cuts:** This type of wound is made using a standard or rotary bark hack or a chainsaw chipping tool employed in naval stores work to remove a single 1-inch-wide streak of bark about 1 to 2 feet from ground level. The total length should not exceed ½ of the tree circumference. Multiple streaks or cuts can result in serious girdling of the trunk and premature death of the tree. A coarse spray (about 2 to 6 ml) of GRAMOXONE EXTRA solution (1% to 5% cation, wt/wt. basis) should be applied to runoff to the exposed xylem, using a plastic acid bottle or a low-pressure sprayer. Wear rubber gloves when using the acid bottle. The amount of spray required per cut depends on tree circumference and the length of cut or streak (½ of circumference). For a 9-inch diameter tree, 3 ml of spray will cover the 1-inch-wide streak. Using 3 ml of a 2% or 4% GRAMOXONE EXTRA solution will result in application of 60 or 120 mg GRAMOXONE EXTRA per streak.

**Tree Injection:** Pressure injections of 1% to 4% GRAMOXONE EXTRA solution (cation, wt./wt. basis) should be applied beneath the bark and just beneath the cambium layer. Injections should be made 1 to 2 inches apart around ½ of the tree circumference or no closer than 3 inches apart all around the tree. From 0.2 ml to 0.4 ml of GRAMOXONE EXTRA solution is applied per injection. Using 2% to 4% GRAMOXONE EXTRA solution, this results in 36 to 144 mg GRAMOXONE EXTRA applied per 9-inch diameter tree, for holes spaced 1 inch apart around ½ of the tree or 3 inches apart all around the tree.

**Bore Holes:** % to % inch diameter holes 2 to 6 inches deep, depending on tree diameter are bored sloping slightly downward and tangentially inward rather than directly towards the center of the tree. Solutions of 0.3% to 5% GRAMOXONE EXTRA can be used. Lower concentrations (0.3%) are usually applied at higher volumes of 15 to 35 ml per tree, resulting in application of 45 to approximately 100 mg GRAMOXONE EXTRA per tree. Using 2% to 4% solutions and applying 5 ml per single hole per tree results in application of 100 or 200 mg GRAMOXONE EXTRA per tree. Bore hole applications in the range of 45 to 100 mg GRAMOXONE EXTRA per tree have resulted in effective oleoresin induction.

Time of Treatment: Resin soaking can occur from treatments made any time of the year; however, cool season treatments under nondrought conditions usually result in less severe pine beetle infestations and longer tree life.

Interval Between Treatment and Tree Harvest: The interval between application of GRAMOXONE EXTRA and tree harvest should be a minimum of 6 months and preferably from 12 to 24 months. Intervals of over 6 months may not be possible under conditions of drought or serious pine beetle attacks, which may make early harvest necessary. The GRAMOXONE EXTRA treatment may encourage beetle attack, or may cause premature death of the tree. Desiccation of the xylem tissue, rather than the desired resin soaking, may occur, and is more likely at higher dosage rates.

#### **Effect on Stem Growth:**

GRAMOXONE EXTRA herbicide treatment can result in reduced stem growth during the interval between treatment and tree harvest.

Concentration of Cation Desired (Wt./Wt. Basis)	To % Gallon of GRAMOXONE EXTRA Herbicide Add the Following No. Gals. of Water:
0.2%	118.8
0.5%	46.8
1.0%	22.9
2.0%	10.9
3.0%	6.9
4.0%	4.9
5.0%	3.7

#### 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.

# NOTE: DO NOT USE AROUND HOME GARDENS, SCHOOLS, RECREATIONAL PARKS, GOLF COURSES, OR PLAYGROUNDS.

#### DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

DO NOT enter or allow others to enter the treated areas until sprays have dried.

**AVOID** working in spray mist. If there is risk of exposure, wear goggles and approved face mask capable of filtering spray droplets.

#### KEEP ALL UNPROTECTED PERSONS OUT OF OPERATING AREAS OR VICIN-ITY WHERE THERE MAY BE DANGER OF DRIFT.

Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated.

**IMPORTANT:** The effect of swallowing GRAMOXONE EXTRA is far more severe than that which usually results from skin contact or inhalation of spray mist. This product should not cause injury if used according to label instructions. Follow the label **as if your life depends on it**.

Other Uses	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
CONSERVATION RESERVE, FEDERAL SET-ASIDE, CONSER- VATION COMPLI- ANCE PROGRAMS (For use in compli- ance with the Federal Conservation Reserve Program or Federal set-aside programs)	Broadcast	2 to 3 pints	Ground: 10 gal. Air: 5 gal.	_	<ul> <li>For improved emerged weed control or extended weed control, GRAMOXONE EXTRA may be tank mixed with other herbicides registered for this use. Refer to tankmix herbicide labels for specific directions, limitations, cau- tions, and a list of weeds controlled.</li> </ul>
NONCROP USES	Broadcast or Spot Treatment	2 to 3 pints	Ground: 10 gal.	_	<ul> <li>For use in noncrop areas such as public airports, electric transformer stations, pipeline pumping stations, around commercial buildings, storage yards and other installations, fence lines, or similar noncrop areas.</li> <li>Avoid contact with the foliage of ornamentals or desired plants.</li> <li>Repeat as necessary.</li> </ul>

Other Uses	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
PASTURE RESEEDING For suppression of existing sod and undesirable emerged broadleaf weeds and grasses prior to or at time of planting grasses or forage legumes	Broadcast	13 to 24 fl. oz.	Ground: 10 gal. Air: 5 gal.	See specific geographic recommen- dation	<ul> <li>West of Cascade and Sierra Nevada Mountains</li> <li>Apply in October through December after first fall rains and after weeds have emerged and sod has started new growth.</li> <li>For best seeding results, apply on moderately to heavily grazed areas.</li> <li>Do not use in areas with heavy sod and weed growth.</li> <li>East of Rocky Mountains</li> <li>Use the 24 fluid ounce rate on vigorous or coarse sod species such as bromegrass.</li> <li>Apply prior to or at time of seeding grasses or forage legumes.</li> <li>Apply only to grazed or mowed pastures not more than 3 inches in height at time of treatment.</li> <li>Bermudagrass or Bahiagrass Sods</li> <li>Apply in late summer or early fall to sod not exceeding 3 inches in height.</li> <li>For control of emerged little barley, apply in February or March before the mid-boot stage of little barley.</li> <li>Bermudagrass and Coastal Bermudagrass Pastures</li> <li>Apply when bermudagrass is dormant.</li> <li>For control of little barley, apply before the mid-boot stage.</li> <li>Do not mow for hay until 40 days after treatment.</li> </ul>
For Control of Endophyte-Fungus- Infected Fescue Forage Legume/ Grass Mixture and Other Grass Pastures	Broadcast (Split Application)	13 to 24 fl. oz. followed by 13 to 24 fl. oz.	Ground: 10 gal.	_	<ul> <li>Use split applications of 10 to 21 days apart if necessary.</li> <li>Do not exceed 3.0 pints per acre total in preparation for reseeding.</li> <li>For spring plantings, the initial application of 13 to 24 fluid ounces may be made the previous fall.</li> <li>Apply when fescue is actively growing and no more than 4 inches high.</li> <li>To reduce the infestation of endophyte-infested grass, do not allow fescue to go to seed starting with the preceding year's crop.</li> </ul>
For Prickly Pear Desiccation in Pastures	Spot Sprays	2 to 4 fl. oz. per gallon of water	Spray to wet weed foliage		<ul> <li>Knapsack, backpack sprayers, pump-up pressure sprayers, handguns, hand wands, and other hand-held equipment can be used to direct the spray onto weed foliage for spray to wet applications.</li> <li>Mix 2 to 4 fluid ounces of GRAMOXONE EXTRA and ¼ fluid ounce of a nonionic surfactant per gallon of water.</li> <li>Spray coverage should be uniform and provide complete cover of all green prickly pear foliage.</li> <li>Apply in May through September for best desiccation results.</li> <li>Do not use more than 24 fluid ounces of GRAMOXONE EXTRA per acre per year.</li> <li>Apply only to pastures with no more than 3 inches of height at time of treatment.</li> <li>For improved desiccation and perennial control of prickly pear, tank mix with Grazon® P+D herbicide at a rate of 1 to 2 fluid ounces per gallon of water.</li> <li>Refer to the Grazon P+D label for directions, restrictions, and precautions.</li> <li>NOT REGISTERED FOR USE ON PRICKLY PEAR IN CALIFORNIA.</li> </ul>

Other Uses	Use Pattern	GRAMOXONE EXTRA Rate per Acre	Minimum Total Spray per Acre	Grazing or Preharvest Interval (Days)	Precautions, Restrictions, and Comments
For Juniper Species leaf moisture reduction or desiccation prior to <b>prescribed</b> burning of pastures	Broadcast	1.6 pints	Air: 5 gal.	_	<ul> <li>Use only in conjunction with prescribed burning as recommended and monitored by local SCS or University and Extension Range Specialists.</li> <li>Apply during hot, dry weather conditions (generally July and August).</li> <li>Use 2% v/v nonionic surfactant in a minimum of 5 GPA spray solution.</li> <li>Juniper leaf moisture content should be monitored; however, maximum leaf moisture reduction generally occurs 3 to 4 weeks after GRAMOXONE EXTRA application.</li> <li>Significant soil moisture and/or wet weather conditions prior to or after application will decrease the potential for Juniper Crown burns.</li> <li>Cool or humid weather conditions also adversely affect leaf moisture reduction.</li> <li>Do not graze livestock after application or prior to burning.</li> <li>NOT REGISTERED FOR USE ON JUNIPER SPECIES IN CALIFORNIA.</li> </ul>
Native Pastures	Broadcast	1.25 to 1.5 pints	Ground: 10 gal. Air: 5 gal.	-	<ul> <li>Apply GRAMOXONE EXTRA for control of downy and Japanese brome.</li> <li>Apply in spring after 90% node formation of brome species, but before full bloom.</li> <li>Emerged native perennial grasses will be burned by application, but application after 90% node formation will allow adequate time for native grasses to recover and attain maximum growth in the use season.</li> <li>Do not apply more than 1.5 pints GRAMOXONE EXTRA per year.</li> <li>Apply only to pastures with no more than 3 inches of height at time of treatment.</li> <li>NOT REGISTERED FOR USE ON NATIVE PASTURES IN CALIFORNIA.</li> </ul>

Conversion Table						
GRAMOXONE EXTRA Herbicide to be Applied						
Fl. Oz. or Pints/Acre	Lb. ai/Acre					
6.5 ounces	0.13					
12.8 ounces	0.25					
0.8 pint	0.25					
1.2 pints	0.375					
1.6 pints	0.5					
2.4 pints	0.75					
3.2 pints	1.0					

#### STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited.

**STORAGE:** Store at temperatures above 32°F. Do not contaminate feed, foodstuffs, or drinking water. Do not store next to feed or food, or transport in or on vehicles containing foodstuffs or feeds. For help with any spill, leak, fire, or exposure involving this material, call **CHEMTREC 1-800-424-9300**.

**PESTICIDE DISPOSAL:** This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Do not reuse container. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or dispose of by other procedures allowed by State and local authorities.

#### FOR BULK/MINI-BULK AND E-Z HANDLER® CONTAINERS:

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

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.

**REFILL ONLY WITH GRAMOXONE EXTRA HERBICIDE.** The contents of this container cannot be completely removed by cleaning. Refilling with materials other than GRAMOXONE EXTRA will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

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

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