GROUP 2B HERBICIDE

# Lambient™

## HERBICIDE

For post-emergence control of certain grasses and broadleaf weeds in Rangeland, Pastures and Conservation Reserve Program

**ACTIVE INGREDIENT:**
Propoxycarbazone-sodium* ..... 70%
**OTHER INGREDIENTS:** ..... 30%
**TOTAL:** ..... 100%
CAS Number 181274-15-7

**EPA Reg. No. 432-1584** **EPA Est. No. 264-DEU-001**

## STOP - Read the label before use
## Keep out of reach of children

# CAUTION

**For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577**
**For PRODUCT USE Information Call 1-800-331-2867**

| FIRST AID | |
|---|---|
| **If swallowed:** | • Immediately call a poison control center or doctor for treatment advice.<br>• Do not induce vomiting unless told to do so by a poison control center or doctor.<br>• Have person sip a glass of water if able to swallow.<br>• Do not give anything by mouth to an unconscious person. |
| **If on skin or clothing:** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15-20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If in eyes:** | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.<br>• Call a poison control center or doctor for treatment advice. |
| **For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.<br>Have the product container or label with you when calling a poison control center or doctor or going for treatment.** | |
| **NOTE TO PHYSICIAN:** No specific antidote is available. Treat the patient symptomatically. | |

See Booklet for Complete Precautionary Statements and Directions for Use.

**Nonrefillable Container**
**Net Weight**
**21 Ounces**
**85411292**
**85366181A 160322AV1b**

Bayer

**Produced for:**
**Bayer Environmental Science**
**A Division of Bayer CropScience LP**
**2 T. W. Alexander Drive**
**Research Triangle Park, NC 27709**
**Product of Germany**

(01)00785740554166

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION**
Harmful if swallowed. Avoid contact with skin, eyes, or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are listed below.
**Applicators and other handlers must wear:**
- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks.

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

### User Safety Recommendations

**User should:**
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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 apply when weather conditions favor drift from treatment areas. Do not contaminate water when disposing of equipment washwaters or rinsate.
This product is toxic to terrestrial plants. Minimize exposure to non-target plants and do not apply when weather conditions favor drift from target areas.

**Ground Water Advisory**
This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory**
This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.
This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of propoxycarbazone-sodium from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.
**Pesticide Storage:** Store product in original container only. Store in cool, dry place.
**Pesticide Disposal:** Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.
**Container Handling:** Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" designation.
**Nonrefillable Containers (Equal to or Less Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local authorities.
**Nonrefillable Containers (Greater Than 50 lbs Including Intermediate Bulk Containers (IBC):** Nonrefillable container. Do not reuse of refill this container. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local authorities
Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact BAYER CROPSCIENCE LP at 1-800-334-7577, day or night.



**Produced for:**
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Bayer

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION**

Harmful if swallowed. Avoid contact with skin, eyes, or clothing.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are listed below.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.
- Shoes plus socks.

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

### User Safety Recommendations

**User should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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 apply when weather conditions favor drift from treatment areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This product is toxic to terrestrial plants. Minimize exposure to non-target plants and do not apply when weather conditions favor drift from target areas.

**Ground Water Advisory**

This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of propoxycarbazone-sodium from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## DIRECTIONS FOR USE

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

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

## AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is long-sleeved shirt and long pants, socks, shoes, chemical-resistant gloves made of any waterproof material and protective eye wear.

## 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 does not pertain to non-agricultural use on sites, such as, rangeland, permanent grass pastures, or non-cropland. See the Agricultural Use Requirements section of this label for information where the WPS applies.

**Entry Restrictions for Non-WPS Uses:** For applications on rangeland and permanent grass pastures and non-cropland areas, do not enter or allow worker entry into treated areas until sprays have dried.

## GUIDELINES FOR USE ON RANGELAND, GRASS PASTURES AND CONSERVATION RESERVE PROGRAM (CRP) ACRES

## PRODUCT INFORMATION

LAMBIENT™ Herbicide controls susceptible grasses and broadleaf weeds on rangeland, permanent grass pastures, and Federal Conservation Reserve Program (CRP) acres.

LAMBIENT Herbicide may be applied for the control of undesirable vegetation in order to achieve one or more of the following vegetation management objectives:

1. The control of undesirable (non-native, invasive and noxious) plant species.
2. The release of existing desirable plant communities from the competitive pressure of undesirable plant species.
3. The management of undesirable vegetation in order to aid in the re-establishment of desirable vegetation.
4. The control of undesirable vegetation for purposes of wildfire fuel reduction.
5. The control of undesirable vegetation for purposes of wildlife habitat improvement.

## CROPS

Native rangeland, grass pastures and Federal Conservation Reserve Program (CRP) acres. See **TOLERANCE OF DESIRABLE GRASS SPECIES** section for suitability for treatment of specific grass species.

## APPLICATION INFORMATION

**Weed Application Timing**

For the control of annual weed species such as cheat and downy brome, a single application of LAMBIENT Herbicide that coincides with the successful establishment and/or release of desirable vegetation is recommended.

Apply LAMBIENT Herbicide as a foliar broadcast postemergence spray in the fall or spring to actively growing weeds. Best weed control can be expected when applications are made before grass weeds tiller and broadleaf weeds are smaller than 2 inches in diameter.

In challenging weed control situations or management of difficult to control perennial weed species, best results are achieved by a sequential application program. Apply LAMBIENT Herbicide in the fall followed by a spring LAMBIENT Herbicide application. Applications in following years may be required to maintain control.

**Application Methods**

Most consistent weed control is obtained via ground application however ground or aerial (fixed wing or helicopter) application equipment may be used to apply LAMBIENT Herbicide as a foliar postemergence spray.

Calibrate spray equipment before use to ensure optimum plant coverage and canopy penetration as thorough coverage achieves the best weed control results. The use of nozzles and spray pressure that deliver coarse spray droplets as indicated in the nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572 are highly recommended. Use screens that are 50-mesh or larger. Avoid uneven spray distribution, skips, overlaps, and spray drift.

**Ground application:** Apply LAMBIENT Herbicide broadcast in an equivalent volume of 5 or more gallons of water per acre. For dense weed infestations, use an equivalent volume of 15 or more gallons of water per acre. Weed infestations should be treated before they become competitive with the desirable vegetation.

**Note:** In some areas, a dense layer of plant residue can accumulate where brome species are a problem. This residue can make it difficult for LAMBIENT Herbicide to reach small weeds. To ensure best results, use at least 20 GPA in heavy trash situations. Mowing or burning of plant residue several weeks prior to application can also enhance control.

**Aerial application:** Apply LAMBIENT Herbicide in a minimum equivalent volume of 3 gallons of water per acre (GPA). In heavy weed infestations, dense crop canopy or in stress conditions, 5 GPA carrier volume is strongly recommended.

**Spot Applications:** If needed, spot treatments with LAMBIENT Herbicide may be used to control any remnant plants or new seedlings that may emerge. Use rates equivalent to broadcast-applied rates of up to a maximum of 1.2 oz/acre per annual growing season.

To prevent misapplication, spot treatments should be applied with a calibrated boom, boomless spray system, hand-held, or backpack sprayers.

Spray volume should be sufficient to thoroughly and uniformly wet weed foliage. When applying spot treatments, broadcast-applied equivalent application parameters (volume, adjuvants, etc.) are to be followed as directed in the Application Rate table.

Mix the amount of LAMBIENT Herbicide (oz or grams) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending upon the spray volume required to treat 1,000 sq ft. A delivery volume of 0.5 to 2.5 gallons per 1,000 sq ft is equivalent to 22 to 109 gallons per acre.

**Application rate table:**

| Amount of LAMBIENT Herbicide Per 1,000 Sq Ft To Equal Broadcast Rate | | |
|---|---|---|
| Broadcast Rate (oz/A) | Amount of LAMBIENT Herbicide per 1,000 sq ft | |
| | Ounces | Grams |
| 0.9 | 0.021 | 0.597 |
| 1.2 | 0.027 | 0.797 |

## USE RATES

LAMBIENT Herbicide at 1.2 ounces per acre will provide control or partial control of many annual grass and broadleaf weeds. For a single application, apply LAMBIENT Herbicide at 1.2 ounces per acre in the fall or spring to actively growing weeds. Two applications may be applied in a year, limited to a cumulative total of 1.2 ounces of LAMBIENT Herbicide per acre per year.

For further information on selecting the proper LAMBIENT Herbicide rate and timing, see the **Weed Management in Existing Grass Stands** and the **Forage Grass Re-Establishment** sections of this label. Unless otherwise recommended by Bayer CropScience, do not apply less than 0.9 ounce of LAMBIENT Herbicide per year.

## SURFACTANTS AND FERTILIZER ADDITIVES

LAMBIENT Herbicide is a water dispersible granule that does not include an adjuvant. A non-ionic surfactant (NIS) is required in the spray solution. Use only NIS surfactants which contain at least 80 percent active ingredient.

NIS surfactants should be used at 0.25% - 0.5% v/v in spray solution. Mix according to the guidelines as described in the Mixing Instructions section.

**RESTRICTION:**
Do not use an organosilicone-based surfactant. Additives that lower the pH of the spray solution below pH 5 are not recommended.
Urea ammonium nitrogen (UAN) fertilizer may be added to enhance weed control. Use only spray grade quality UAN fertilizer (e.g. 28-0-0 or 32-0-0 at 1 – 2 quart/acre) or ammonium sulfate fertilizer (21-0-0-24 at 1.0 – 3.0 pounds per acre).

## APPLICATION IN FLUID FERTILIZER

Excluding applications to newly emerged seedling grasses, LAMBIENT Herbicide may be applied using a UAN as the spray carrier. For fall applications, the fertilizer solution should not exceed 50% and not exceed more than an equivalent rate of 30 pounds of actual nitrogen per acre. A NIS surfactant at a maximum of 0.25% v/v is required in spray solutions containing liquid nitrogen.
Due to the activity of fertilizer on the foliage of desired grasses, temporary injury may result when UAN is used as a spray carrier. Crop response symptoms due to the use of UAN as a spray carrier may include discoloration and leaf burn.
The addition of liquid fertilizer may negatively impact seedling grass tolerance and is not recommended when treating newly emerged seedling grasses.

**Drift Management**
LAMBIENT Herbicide is not volatile. Damage to sensitive crops can occur as a result of spray drift. Spray drift can be managed by several application factors and by spraying under the appropriate climatic conditions. Consequently, avoidance of spray drift is the responsibility of the applicator and grower.
**SENSITIVE AREAS:** The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, and non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).
Avoiding spray drift at the application site is the responsibility of the applicator and grower. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.
Do not apply under circumstances where possible drift to unprotected persons or to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.
The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.
1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward (i.e., parallel with the air stream) and never be pointed downwards more than 45 degrees.
3. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Where states have more stringent regulations, they shall be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.
**INFORMATION ON DROPLET SIZE:**
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).
Uniform, thorough spray coverage is important to achieve consistent weed control. Select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver **COARSE** spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain coverage of weeds.
**CONTROLLING DROPLET SIZE:**
- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**BOOM LENGTH:**
For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
**APPLICATION HEIGHT:**
Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy.
**SWATH ADJUSTMENT:**
When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)
**WIND:**
Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.
For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.
**TEMPERATURE AND HUMIDITY:**
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. Avoid spraying during conditions of low humidity and/or high temperatures.

**TEMPERATURE INVERSIONS:**
Do not make aerial or ground applications into areas of temperature inversions because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
To ensure the protection of the threatened and endangered plants when applying LAMBIENT Herbicide to rangeland:
a. Federal agencies must follow NEPA regulations to ensure protection of threatened and endangered plants.
b. State agencies must work with the Fish and Wildlife Services or the Service's designated state conservation agency to ensure protection of threatened and endangered plants.
c. Other organizations or individuals must operate under Habitat Conservation Plan if threatened or endangered plants are known to be present on the land to be treated.

## TANKMIXES

For broad-spectrum control of both annual grasses and broadleaf weeds, LAMBIENT Herbicide may be mixed with the following broadleaf herbicides. With all tank-mix partners use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. LAMBIENT Herbicide cannot be mixed with any product containing a label prohibition against such mixing. A non-ionic surfactant is always required with LAMBIENT Herbicide (see **"SURFACTANTS"** section).

Broadleaf tankmix partners:

| | | |
|---|---|---|
| 2,4-D Amine or Ester * | MCP Amine or Ester | Sencor® |
| Ally® XP | Milestone® | Stinger®* |
| Cimarron® Max/Plus/Extra | Redeem® R&P | Starane® |
| Curtail®* | Remedy®/Remedy® Ultra | Transline®* |
| Dicamba* | | Tordon® |
| Escort® | | |

* Applications with herbicides containing dicamba, clopyralid or 2,4-D may result in reduced downy brome (*Bromus tectorum*) control.

## MIXING INSTRUCTIONS

Ensure the spray tank is clean. In-line strainers and nozzle screens should be clean and 50 mesh or coarser.
1. Fill the spray tank 1/4 to 1/2 full with clean water then add UAN or AMS if desired and begin agitation or bypass.
2. Add the appropriate rate of LAMBIENT Herbicide directly to the spray tank.
3. Add the broadleaf weed herbicide if desired.
4. Add the surfactant.
5. Fill the spray tank with balance of water needed.
6 Maintain sufficient agitation during both mixing and application of LAMBIENT Herbicide.

## WEEDS CONTROLLED

LAMBIENT Herbicide effectively controls the following weeds when applied at the rates and application timings shown and weeds are actively growing. Best control is achieved when grass weeds are treated at the 2-leaf to 2-tiller stage of growth and before broadleaf weeds are 2 inches in diameter.

| Common name | Scientific name | Application Rates | |
|---|---|---|---|
| **Grasses** | | **0.9 ounce/acre** | **1.2 ounce/acre** |
| Cheat (true cheat) | *Bromus secalinus* | C | C |
| Dense silky-bent (Windgrass) | *Apera spica-venti* | C | C |
| Downy brome | *Bromus tectorum* | PC | C |
| Foxtail Barley | *Hordeum jubatum* | PC | PC |
| Hood canarygrass | *Phalaris paradoxa* | C | C |
| Japanese brome | *Bromus japonicus* | C | C |
| Johnsongrass | *Sorghum halepense* | PC | PC |
| Jointed Goatgrass* | *Aegilops cylindrica* | - | PC |
| Littleseed canarygrass | *Phalaris minor* | C | C |
| Quackgrass | *Elytrigia repens* | PC | PC |
| Rattail fescue | *Vulpia myuros* | PC | PC |
| Rescue grass | *Bromus catharticus* | - | PC |
| Ripgut brome | *Bromus rigdus* | PC | C |
| Soft Chess | *Bromus commutatus* | C | C |
| Wild oat | *Avena fatua* | PC | C |
| Windgrass | *Apera interrupta* | C | C |
| **NOTE: C means Control** | **PC means Partial Control** | | |
| Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas but control will generally not be commercially acceptable. | | | |

* Fall and spring sequential applications required.

**BROADLEAF WEEDS and SEDGES CONTROLLED**

| Weeds Controlled[1] | | LAMBIENT Herbicide | Weeds Controlled[1] | | LAMBIENT Herbicide |
|---|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Single Application (0.9 – 1.2 ounces)** | **Common Name** | **Scientific Name** | **Single Application (0.9 – 1.2 ounces)** |
| Black mustard | *Brassica nigra* | C | Marsh bedstraw | *Galium* spp. | PC |
| Black nightshade | *Solanum nigrum* | C | Mouseear chickweed | *Cerastium vulgatum* | C |
| Blue mustard | *Chorispora tenella* | C | Narrowleaf plantain | *Plantago lanceolata* | PC |
| Buffalobur | *Solanum rostratum* | C | Perennial pepperweed | *Lepidium latifolium* | PC |
| Burr buttercup | *Ranunculus testiculatus* | C | Persian speedwell | *Veronica persica* | PC |
| Bushy wallflower | *Erysimum repandum* | C | Pitted morningglory | *Ipomoea lacunosa* | PC |
| Carolina geranium | *Geranium carolinianum* | PC | Prickly sida/Teaweed | *Sida spinosa* | C |
| Catchweed bedstraw | *Galium aparine* | PC | Prostrate knotweed | *Polygonum aviculare* | PC |
| Common chickweed | *Stellaria media* | C | Purple deadnettle | *Lamium purpureum* | PC |
| Common cocklebur | *Xanthium strumarium* | PC | Purple nutsedge | *Cyperus rotundus* | PC |
| Common groundsel | *Senecio vulgaris* | C | Purslane speedwell | *Veronica peregrina* | PC |
| Common lambsquarters | *Chenopodium album* | PC | Rape (volunteer) | *Brassica rapa* | C |
| Common purslane | *Portulaca oleracea* | PC | Redroot pigweed | *Amaranthus retroflexus* | C |
| Common ragweed | *Ambrosia artemisiifolia* | PC | Russian thistle | *Solsaola iberica* | PC |
| Cranesbill geranium | *Geranium maculatum* | PC | Shepherdspurse | *Capsella bursa-pastoris* | C |
| Cypressvine morningglory | *Ipomoea quamoclit* | PC | Silverleaf nightshade | *Solanum elaeagnifolium* | C |
| Entireleaf morningglory | *Ipomoea hederacea* | | Small seeded false flax | *Camelina micropora* | C |
| | *var. integriuscula* | PC | Smallflower morningglory | *Jacquemontia tamnifolia* | PC |
| False chamomile | *Matricaria inodora* | PC | Tall morningglory | *Ipomoea purpurea* | PC |
| Field bindweed | *Convolvulus arvensis* | PC | Tall wormseed wallflower | *Erysimum cheiranthoides* | C |
| Field Forget-Me-Not | *Myosotis arvensis* | PC | Tansy mustard | *Descurania pinnata* | C |
| Field pennycress/Fanweed | *Thlaspi arvense* | C | Tumble mustard | *Sisymbrium altissimum* | C |
| Field violet | *Viola arvensis* | PC | Western ragweed | *Ambrosia psilostachya* | PC |
| Flixweed | *Descurania sophia* | C | Wild buckwheat | *Polygonum convolvulus* | PC |
| Giant ragweed | *Ambrosia trifida* | PC | Wild mustard | *Brassica kaber* | C |
| Henbit | *Lamium amplexicaule* | PC | Wild turnip | *Brassica campestris* | C |
| Ivyleaf morningglory | *Ipomoea hederacea* | PC | Yellow nutsedge | *Cyperus esculentus* | PC |
| Kochia | *Kochia scoparia* | PC | Yellow rocket | *Barbarea vulgaris* | PC |
| London rocket | *Sisymbrium irio* | C | | | |
| **NOTE: C means Control** | **PC means Partial Control** | | | | |
| Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas but control will generally not be commercially acceptable. | | | | | |

[1] Naturally occurring resistant biotypes of certain weed species are known to occur.

## WEED RESISTANCE

LAMBIENT Herbicide is an acetolactate synthase (ALS) inhibiting herbicide. Some weed populations may contain plants naturally resistant to LAMBIENT Herbicide or other herbicides with the same mode of action (ALS/AHAS enzyme inhibitors). Repeated use of herbicides with the same mode of action allows resistant weeds to spread. To manage the spread of resistant weed populations, use herbicides with different modes of action in tankmixture, rotation, or in conjunction with alternate cultural practices.

The use of LAMBIENT Herbicide should conform to resistance management strategies established for the use area. Consult your agricultural advisor for resistance management strategies and recommended pest management practices for your area.

## REVEGETATION WITH RANGEGRASSES AND OTHER FORAGE GRASSES

LAMBIENT Herbicide controls many annual and perennial grass and broadleaf weeds. Reducing weed competition during desirable grass establishment is one way to foster optimal grass seedling establishment.

LAMBIENT Herbicide can result in stunting or stand thinning of desired grasses. The duration and intensity of effects are also related to weed pressure, chemical residue, soil type and adverse environmental conditions. Additional stressors such as poor seedling vigor, cool temperatures, high elevations, poor soils, planting depth, additional tankmix partners, excessive moisture, disease, insects or very dry weather after emergence can amplify crop injury and may result in mortality. Bayer CropScience can not be held responsible for factors such as these. It is recommended to try LAMBIENT Herbicide on a small area if tolerance is not known.

**Seed Production:** Due to highly variable impact on yield from numerous stress factors (rainfall, pests, environmental extremes etc.); Bayer CropScience does not recommend the use of LAMBIENT Herbicide on seed crops and such risks associated with this use must be assumed by the user.

### Weed Management in Existing Grass Stands

Postemergence Application Timing: Apply LAMBIENT Herbicide as an early postemergence application to annual grass and broadleaf weeds. For light weed infestations 0.9 ounce LAMBIENT Herbicide per acre is recommended but may be inadequate for heavy weed infestations or in challenging environmental conditions. The 1.2 ounce per acre rate of LAMBIENT Herbicide provides the greatest duration of weed control but can result in foliar and/or seed head or height suppression in established grass stands of sensitive species. Refer to the **TOLERANCE OF DESIRABLE GRASS SPECIES** table for further information.

When treating mixed grass stands that have been overseeded, make LAMBIENT Herbicide applications after newly seeded grass seedlings have reached the five leaf stage of development or larger. Newly emerged grasses can be sensitive to postemergence applications of LAMBIENT Herbicide and may result in stand thinning due to variability in seedling grass tolerance and other factors.

### Forage Grass Re-Establishment

**New Seeding of Desired Grasses after an LAMBIENT Herbicide Application:** Wait at least 90 days after an LAMBIENT Herbicide application before seeding desired grasses. Consult **TOLERANCE OF DESIRABLE GRASS SPECIES** table for crop tolerance information.

**TOLERANCE OF DESIRABLE GRASS SPECIES**

| Rangegrass/Prairie grasses | | Response to LAMBIENT Herbicide | |
|---|---|---|---|
| **Common Name** | **Scientific Name** | **New Seeding Establishment Crop Tolerance when planted at least 60 days *after* LAMBIENT Herbicide Application** | **Established Grass – Crop Tolerance to Post Emergence LAMBIENT Herbicide Application** |
| Bermudagrass | *Cynodon dactylon* | T | T |
| Big Bluestem | *Andropogon gerardii* | T | T |
| Blue Grama | *Bouteloua gracilis* | T | T |
| Blue Wildrye | *Elymus glaucus* | T | T |
| Bluebunch Wheatgrass | *Agropyron spicatum* | – [2] | MS |
| Bottlebrush Squirreltail | *Sitanian hystrix* | – [2] | – [2] |
| Broomsedge Bluestem | *Andropogon virginicus* | – [2] | T |
| Buffalograss | *Buchloe dactyloides* | – [2] | T |
| Bushy Bluestem | *Andropogon glomeratus* | – [2] | T |
| Canada Wildrye | *Elymus canadensis* | T | T |
| Crested Wheatgrass | *Agropyron desertorum* | T | MS |
| Eastern Gamagrass | *Tripsacum dactyloides* | – [2] | – [2] |
| Idaho Fescue | *Festuca idahoensis* | T | T |
| Indiangrass | *Sorghastrum nutans* | T | T |
| Intermediate Wheatgrass | *Agropyron intermedium* | T | MS |
| Italian/Annual Ryegrass | *Lolium multiflorum* | T | T |

*continued*

**TOLERANCE OF DESIRABLE GRASS SPECIES** (*continued*)

| Rangegrass/Prairie grasses | | Response to LAMBIENT Herbicide | |
|---|---|---|---|
| **Common Name** | **Scientific Name** | **New Seeding Establishment Crop Tolerance when planted at least 60 days *after* LAMBIENT Herbicide Application** | **Established Grass – Crop Tolerance to Post Emergence LAMBIENT Herbicide Application** |
| Kentucky Bluegrass | *Poa pratensis* | T | T |
| King Ranch Bluestem | *Andropogon ischaemum* | – [2] | T |
| Little Bluestem | *Schizachyrium scoparium* | – [2] | – [2] |
| Needle-and-thread | *Stipa comata* | T | MS |
| Needlegrass | *Stipa* spp. | T | MS |
| Orchardgrass/Cocksfootgrass | *Dactylis glomerata* | T | T |
| Perennial Ryegrass | *Lolium perenne* | T | T |
| Prairie Junegrass | *Koeleria macrantha* | T | T |
| Prairie Sandreed | *Calamovilfa longifolia* | – [2] | – [2] |
| Prairie Threeawn | *Aristida oligantha* | – [2] | T |
| Russian Wildrye | *Elymus junceus* | T | T |
| Sand Dropseed | *Sporobolus cryptandrus* | T | T |
| Sand Lovegrass | *Eragrostis trichodes* | T | T |
| Sandberg's Bluegrass | *Poa sandbergii* | T | T |
| Sheep Fescue | *Festuca trachyphylla* | – [2] | – [2] |
| Sideoats Grama | *Bouteloua curtipendula* | T | T |
| Silver Beard Bluestem | *Andropogon saccharoides* | – [2] | T |
| Smooth bromegrass | *Bromus inermis* | MS | MS |
| Western Wheatgrass | *Agropyron smithii* | T | MS |

[1] **S** (Sensitive) – An LAMBIENT Herbicide application frequently results in stunting or growth suppression. This effect can be severe and may reduce yield or overall thriftiness.
**MS** (Moderately Sensitive) – An LAMBIENT Herbicide application may result in transient stunting or growth suppression but no long term affects on yield.
**T** (Tolerant) – Applications of LAMBIENT Herbicide are well tolerated by species.

[2] Tolerance is not well known, bioassay recommended.

## RE-CROPPING GUIDELINES – CONVENTIONAL CROPS

LAMBIENT Herbicide breakdown in the soil is due mainly to microbial activity. It can be affected by soil temperature and moisture. Conditions that accelerate the breakdown of LAMBIENT Herbicide include adequate soil moisture and adequate soil temperatures to support microbial activity. Likewise, LAMBIENT Herbicide breakdown can be slowed under dry, cold conditions. When considering crop rotations, soil moisture and soil temperature conditions since application should be monitored.

To ensure safety of rotational crops, the following re-cropping guidelines are provided:

**Oklahoma, Kansas, Nebraska, Texas**

| Crop | Cumulative Precipitation (Inches) | Rotation Interval (Months) |
|---|---|---|
| Wheat | 0 | 0 |
| Proso Millet | 10 | 4 |
| Soybean STS® | 10 | 4 |
| Cotton | 24 | 12 |
| Sorghum (grain) | 24 | 12 |
| Sunflower | 24 | 12 |
| Soybean - Conventional | 24 | 12 |
| Corn – Conventional | 30 | 18 |

**Washington, Oregon, Idaho**

| Crop | Cumulative Precipitation (Inches) | Rotation Interval (Months) |
|---|---|---|
| Wheat | 0 | 0 |
| Field Peas | 24 | 12 |
| Spring Barley | 24 | 18 |
| Lentils | 24 | 18 |
| Canola | 24 | 22 |
| Potato | 24 | 22 |

**Colorado, Montana, Wyoming, South Dakota**

| Crop | Cumulative Precipitation (Inches) | Rotation Interval (Months) |
|---|---|---|
| Wheat | 0 | 0 |
| Proso Millet | 10 | 4 |
| Corn – Conventional | 24 | 22 |

**NOTE:** In areas where a crop is not specified or the accumulated precipitation was less than specified above, conduct a field bioassay as described in the "**FIELD BIOASSAY**" section of the label.

In all areas, 24 inch rainfall and 24 month rotation interval are required for buckwheat, onions, oats, sugarbeets, potatoes, dry beans, and alfalfa.

## FIELD BIOASSAY

A field bioassay must be conducted for crops not listed on this label and for crops listed on the label for which a shorter plant-back interval than listed is desired.

In no case may crops not previously listed be planted closer than within 30 days of LAMBIENT Herbicide application.

To conduct a field bioassay, plant strips of the crop you want to grow the season following an LAMBIENT Herbicide application. Monitor the crop for response to LAMBIENT Herbicide to determine if the crop can be grown safely in previously treated LAMBIENT Herbicide areas.

## RESTRICTIONS FOR USE

- Do not apply LAMBIENT Herbicide to crops undersown with grass and legume species.
- Do not apply more than a total of 1.2 ounces of LAMBIENT Herbicide per acre per year.
- Do not cut treated area for hay within 7 days after treatment.

## PRECAUTIONS FOR USE

- LAMBIENT Herbicide is rainfast 4 hours after application to most weed species. Rainfall within 4 hours may necessitate retreatment or may result in reduced weed control.
- Applications should be made to actively growing weeds. Weed control may be reduced when weeds are under stress due to severe weather conditions, drought, very cold temperatures, etc. Weed control may be reduced if the herbicide application is made under dry, dusty conditions – especially in the wheel track areas.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store product in original container only. Store in cool, dry place.

**Pesticide Disposal:** Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" designation.

**Nonrefillable Containers (Equal to or Less Than 50 Pounds):** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local authorities.

**Nonrefillable Containers (Greater Than 50 lbs Including Intermediate Bulk Containers (IBC):** Nonrefillable container. Do not reuse of refill this container. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container at least 10 percent full with water. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times. Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local authorities

Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact BAYER CROPSCIENCE LP at 1-800-334-7577, day or night.

## CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, plant injury, other property damage, as well as other unintended consequences may result because of factors beyond the control of Bayer CropScience LP. Those factors include, but are not limited to, weather conditions, presence of other materials or the manner of use or application. All such risks shall be assumed by the user or buyer.

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