



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

December 06, 2024

### **SENT BY EMAIL**

Connie Butts  
connie.butts@basf.com  
BASF AGRICULTUAL SOLUTIONS US LLC

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Add Alternate Brand Names  
Product Name: BASF L-Glufosinate-Ammonium 211 Herbicide  
Admin Number: 7969-500  
EPA Receipt Date: 11/19/2024  
Action Case Number: 00638709

Dear Connie Butts:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

The alternate brand names: Liberty ULTRA Herbicide, Liberty ULTRA, Noventa ULTRA, Noventa ULTRA Herbicide, Liberty ULTRA Herbicide – Powered by Glu-L Technology, Liberty ULTRA – Powered by Glu-L Technology have been added to the registration. Our records have been updated accordingly.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Francisco Llarena-Arias via email at [llarena-arias.francisco@epa.gov](mailto:llarena-arias.francisco@epa.gov).

Sincerely,

A handwritten signature in black ink, reading "Francisco Llarena-Arias". The script is elegant and cursive, with the first letters of each word being capitalized and prominent.

Francisco Llarena-Arias, Environmental Protection Specialist  
FHB, RD  
Office of Pesticide Programs



We create chemistry

Glufosinate-P-Ammonium

Group

10

Herbicide

## NOTIFICATION

7969-500

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

12/06/2024

[Text in brackets [ ] is optional or alternate text.]

# BASF L-Glufosinate-Ammonium 211

## Herbicide

Alternate Brand Names: Liberty® ULTRA Herbicide, Liberty® ULTRA, Noventa® ULTRA, Noventa® ULTRA Herbicide, Liberty® ULTRA Herbicide – Powered by Glu-L™ Technology, Liberty® ULTRA – Powered by Glu-L™ Technology

BASF L-Glufosinate-Ammonium 211 herbicide is a nonselective herbicide that provides control of a broad spectrum of broadleaf and grassy weeds in LibertyLink or glufosinate-resistant crops.



### Active Ingredient:

Glufosinate-P-Ammonium\* ..... 18.7%\*\*

Other Ingredients: ..... 81.3%

Total: ..... 100.0%

\*CAS Number 73777-50-1

\*\*Equivalent to 1.76 pounds of active ingredient per U.S. gallon; equivalent to 1.61 pounds per U.S. gallon acid equivalent, as glufosinate-P.

EPA Reg. No. 7969-500

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

DANGER/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.)

See full label for complete **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

## Net Contents:

[Recirculation is advised] [for bulk tanks] [for totes]

BASF Corporation  
26 Davis Drive, Research Triangle Park, NC 27709

# TABLE OF CONTENTS

## 1.0 FIRST AID

## 2.0 PRECAUTIONARY STATEMENTS

- 2.1 Hazards to Humans and Domestic Animals
- 2.2 Personal Protective Equipment (PPE)
  - 2.2.1 User Safety Requirements
  - 2.2.2 Engineering Controls
  - 2.2.3 User Safety Recommendations
- 2.3 Environmental Hazards
  - 2.3.1 Surface Water Advisory
  - 2.3.2 Pollinator Advisory Statement

## 3.0 DIRECTIONS FOR USE

## 4.0 AGRICULTURAL USE REQUIREMENTS

## 5.0 STORAGE AND DISPOSAL

## 6.0 PRODUCT INFORMATION

- 6.1 Important Crop Safety Information
- 6.2 Weed Resistance Management Practices

## 7.0 MIXING INSTRUCTIONS

- 7.1 Mixing Instructions for **BASF L-Glufosinate-Ammonium 211 herbicide**
- 7.2 Compatibility Testing
- 7.3 Tank Mixing
- 7.4 Cleaning Instructions

## 8.0 APPLICATION INSTRUCTIONS

- 8.1 Ground Application
- 8.2 Nozzle Selection
- 8.3 Aerial Application
- 8.4 Adjuvant Instructions

## 9.0 MANDATORY SPRAY DRIFT MANAGEMENT

- 9.1 MANDATORY SPRAY DRIFT MITIGATIONS
  - 9.1.1 For Aerial and Ground Boom Applications
  - 9.1.2 For Aerial Applications
  - 9.1.3 For Ground Boom Application
- 9.2 Mandatory Spray Drift Buffers
  - 9.2.1 For Aerial and Ground Boom Applications
  - 9.2.2 Aerial Spray Drift Buffer Reduction Options
  - 9.2.3 Ground Boom Spray Drift Buffer Reduction Options
- 9.3 Windbreak-Shelterbelt Criteria

## 10.0 ADDITIONAL SPRAY DRIFT INFORMATION

- 10.1 Importance of Droplet Size
- 10.2 Controlling Droplet Size - Ground Boom
- 10.3 Controlling Droplet Size – Aircraft
- 10.4 Release Height - Ground Boom
- 10.5 Release Height - Aircraft
- 10.6 Hooded (or Shielded) Sprayers
- 10.7 Temperature and Humidity
- 10.8 Temperature Inversions
- 10.9 Wind
- 10.10 Measuring Wind Speed and Wind Direction

## 11.0 MANDATORY RUNOFF MITIGATION

## 12.0 ENDANGERED AND THREATENED SPECIES PROTECTION REQUIREMENTS

## 13.0 General Use Restrictions (*all crops*)

- 13.1 Application Restrictions

## TABLE OF CONTENTS *(continued)*

### 14.0 Application Rate and Weeds Controlled

14.1 Use Rate Equivalency Table

14.2 Weeds Controlled [Not registered for use by California]

### 15.0 Crop Specific Directions for Use

#### 15.1 Canola [Not registered for use by California]

15.1.1 **LibertyLink®** or Glufosinate-resistant Canola In-crop Applications

15.1.2 **LibertyLink®** or Glufosinate-resistant Canola for Seed Propagation

15.1.3 Burndown Use Prior to Planting or Prior to Emergence of **LibertyLink®** or Glufosinate-resistant Canola

15.1.4 Crop Specific Restrictions

#### 15.2 Field Corn and Silage Corn [Not registered for use by California]

15.2.1 **LibertyLink®** or Glufosinate-resistant Field Corn and **LibertyLink®** or Glufosinate-resistant Silage Corn  
In-crop Applications

15.2.2 **LibertyLink®** or Glufosinate-resistant Field Corn for Seed Propagation

15.2.3 Burndown Use Prior to Planting or Prior to Emergence of **LibertyLink®** or Glufosinate-resistant Field Corn

15.2.4 Crop Specific Restrictions

#### 15.3 Sweet Corn [Not registered for use by California]

15.3.1 **LibertyLink®** or Glufosinate-resistant Sweet Corn In-crop Applications

15.3.2 Burndown Use Prior to Planting or Prior to Emergence of **LibertyLink®** or Glufosinate-resistant Sweet  
Corn

15.3.3 Crop Specific Restrictions

#### 15.4 Cotton [Not registered for use by California]

15.4.1 **LibertyLink®** or Glufosinate-resistant Cotton In-crop Applications

15.4.2 **LibertyLink®** or Glufosinate-resistant Cotton for Seed Propagation

15.4.3 Burndown Use Prior to Planting or Prior to Emergence of **LibertyLink®** or Glufosinate-resistant Cotton

15.4.4 Non-glufosinate-resistant Cotton In-crop Applications (Directed Application Hooded Sprayer)

15.4.5 Crop Specific Restrictions

#### 15.5 Soybean [Not registered for use by California]

15.5.1 **LibertyLink®** or Glufosinate-resistant Soybean In-crop Applications

15.5.2 **LibertyLink®** or Glufosinate-resistant Soybean for Seed Propagation

15.5.3 Burndown Use Prior to Planting or Prior to Emergence of **LibertyLink®** or Glufosinate-resistant Soybean

15.5.4 Crop Specific Restrictions

#### 15.6 Burndown Use prior to planting or prior to emergence of Non-glufosinate-resistant crops (Canola, Field Corn, Sweet Corn, Cotton, Soybean) [Not registered for use by California]

#### 15.7 Fallow Fields and Postharvest Uses Associated with Canola, Field Corn, Sweet Corn, Cotton and Soybean Production [Not registered for use by California]

### 16.0 Rotational Crop Restrictions

### 17.0 Conditions of Sale and Limitations of Warranty and Liability

### APPENDIX

## 1.0 FIRST AID

FIRST AID	
If in eyes	<ul style="list-style-type: none"><li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
If swallowed	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• <b>DO NOT</b> induce vomiting unless told to by a poison control center or doctor.</li><li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li></ul>
If on skin	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergency treatment, call BASF Corporation: 1-800-832-HELP (4357) or 1-800-222-1222. For non-emergency information on this product, call 1-800-832-HELP (4357) or the National Pesticides Information Center (NPIC) at 1-800-858-7378.	
<b>NOTE TO PHYSICIAN:</b> If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration. Probable mucosal damage may contraindicate the use of gastric lavage. Additionally, call 1-800-832-HELP (4357) immediately for further information.	

## 2.0 PRECAUTIONARY STATEMENTS

### 2.1 Hazards to Humans and Domestic Animals

**DANGER: Corrosive.** Causes irreversible eye damage. Harmful if swallowed. Harmful if absorbed through skin. **DO NOT** get in eyes or on clothing. Avoid contact with skin. Wear goggles, face shield or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin or clothing. Avoid breathing spray mist.

### 2.2 Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- Long-sleeve shirt and long pants
- Chemical-resistant gloves including barrier laminate, butyl rubber  $\geq$  14 mils, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, polyvinyl chloride (PVC)  $\geq$  14 mils, or viton  $\geq$  14 mils
- Shoes and socks
- Protective eyewear (goggles, face shield or safety glasses)

**Mixers/loaders supporting aerial applications to canola, corn, cotton, and soybean must use** closed mixing/loading systems.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

#### 2.2.1 User Safety Requirements

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

#### 2.2.2 Engineering Controls

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.

## 2.2.3 USER SAFETY RECOMMENDATIONS

USER SAFETY RECOMMENDATIONS
<ul style="list-style-type: none"><li>• Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.</li><li>• 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.</li></ul>

## 2.3 Environmental Hazards

### 2.3.1 Surface Water Advisory

**DO NOT** apply directly to water or to areas where surface water is present. **DO NOT** apply to intertidal areas below the mean high water mark. **DO NOT** contaminate water by cleaning of equipment or disposal of equipment washwater or rinsate.

This pesticide is toxic to vascular plants and needs to be used strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposures.

Under some conditions, this product may have a potential to run off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide runoff.

### 2.3.2 Pollinator Advisory Statement

This product contains a herbicide. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to non-target plants adjacent to the treated site which may serve as habitat or forage for pollinators.

## 3.0 DIRECTIONS FOR USE

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

**DO NOT** use this product until you have read the entire label. **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.

In the State of Hawaii and territory of Puerto Rico, use only allowed for corn, cotton and soybean seed production/propagation (**LibertyLink**® or glufosinate-tolerant and conventional), including seed increase.

In the State of **New York** Only: Not For Use In Nassau and Suffolk Counties.

## 4.0 AGRICULTURAL USE REQUIREMENTS

AGRICULTURAL USE REQUIREMENTS
<p>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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.</p> <p><b>DO NOT</b> enter or allow worker entry into treated areas during the restricted-entry interval (REI) of <b>12 hours</b>.</p> <p>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, including plants, soil, or water, is:</p> <ul style="list-style-type: none"><li>• Coveralls worn over short-sleeve shirt and short pants</li><li>• Chemical-resistant gloves including barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils</li><li>• Chemical-resistant footwear plus socks</li><li>• Protective eyewear (goggles, face shield or safety glasses)</li></ul>

## 5.0 STORAGE AND DISPOSAL

### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

#### Pesticide Storage

**DO NOT** use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature must not exceed 125° F. If storage temperature for bulk **BASF L-Glufosinate-Ammonium 211 herbicide** is below 32° F, the material must not be pumped until its temperature exceeds 32° F. Protect against direct sunlight.

For containers larger than 2.5 gallons, periodic recirculation is advised during long term storage and prior to use or dispersment.

#### Pesticide Disposal

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

#### Container Handling

**Rigid nonrefillable containers small enough to shake (i.e., [plastic] containers with capacities equal to or less than 5 gallons)**

**Nonrefillable [plastic] Container. DO NOT** reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a 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. Once container is rinsed, then offer for recycling if available or reconditioning if appropriate; or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**All refillable container types ([plastic] containers with capacities greater than 50 lbs)**

**Refillable [plastic] Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. This is a sealed returnable container to be used only for **BASF L-Glufosinate-Ammonium 211 herbicide**. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original purchase location.

**Bottom discharge Intermediate Bulk Container (IBC) ([plastic] containers with capacities greater than 50 lbs)**

**Refillable Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Empty the remaining contents from the Intermediate Bulk Container (IBC) into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve. Contact your Ag retailer or BASF for container return, disposal, and recycling recommendations.



## 6.0 PRODUCT INFORMATION

### 6.1 Important Crop Safety Information

#### READ BEFORE USING THIS PRODUCT

**BASF L-Glufosinate-Ammonium 211 herbicide** may be applied as:

- as a burndown treatment prior to planting, prior to emergence or postharvest of canola, field corn, sweet corn, cotton, and soybean
- in seed propagation for canola, field corn, cotton, and soybean
- as a postemergence weed control herbicide to be applied on **LibertyLink®** or glufosinate-resistant crops including **LibertyLink** canola, **LibertyLink** field corn, **LibertyLink** sweet corn, **LibertyLink** cotton, and **LibertyLink** soybeans
- as postemergence weed control herbicide to be applied in cotton with a hooded sprayer only

**Postemergence row crop applications** of **BASF L-Glufosinate-Ammonium 211** may be made only to crops resistant to glufosinate-ammonium or glufosinate-P-ammonium. BASF does not warrant the use of this product on crops other than those designated as **LibertyLink** to safely withstand the application of **BASF L-Glufosinate-Ammonium 211** to the extent consistent with applicable law.

The basis of selectivity of **BASF L-Glufosinate-Ammonium 211** in crops is the presence of a gene in **LibertyLink** crops which results in a plant that is resistant to Glufosinate-P-Ammonium, the active ingredient of **BASF L-Glufosinate-Ammonium 211**. Crops not containing this gene will not be resistant to **BASF L-Glufosinate-Ammonium 211** and severe crop injury and/or death may occur. **DO NOT** allow spray to contact foliage or green tissue of desirable vegetation other than crops resistant to the active ingredient in this product.

**BASF L-Glufosinate-Ammonium 211** may be applied to conventional or other transgenic cotton not resistant to the active ingredient in **BASF L-Glufosinate-Ammonium 211** using a hooded sprayer.

**BASF L-Glufosinate-Ammonium 211** is a water-soluble nonselective herbicide for application as a foliar spray for the control of a broad spectrum of emerged broadleaf and grassy weeds.

**BASF L-Glufosinate-Ammonium 211** is only foliar-active with little or no activity in soil. Only weeds that are emerged at the time of application will be controlled by **BASF L-Glufosinate-Ammonium 211**.

- Apply to actively growing small weeds as specified in the **Weeds Controlled** section.
- **BASF L-Glufosinate-Ammonium 211** is a contact herbicide and requires uniform, thorough spray coverage.
- Warm temperatures, high humidity, and bright sunlight improve the performance of **BASF L-Glufosinate-Ammonium 211**.
- Necrosis of leaves and young shoots occurs within 2 to 4 days after application under good growing conditions.
- **BASF L-Glufosinate-Ammonium 211** is rainfast four (4) hours after application to most weed species; therefore, rainfall within four (4) hours may necessitate retreatment or may result in reduced weed control. Refer to specific use sections of this label for minimum intervals required before re-application of this product and use rates.
- **BASF L-Glufosinate-Ammonium 211** requires sunlight for activity. Applications near dawn and dusk may result in reduced weed control. For best results, make applications between sunrise and 2 hours before sunset.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to environmental conditions including drought, cool temperatures, or extended periods of cloudiness.

To maximize weed control, **DO NOT** cultivate from 5 days before an application to 7 days after an application.

- Consult your local Cooperative Extension Service or BASF representative for guidelines on the optimum application timing for **BASF L-Glufosinate-Ammonium 211** in your region.

## 6.2 Weed Resistance Management Practices

**BASF L-Glufosinate-Ammonium 211 herbicide** is a **Group 10** herbicide, i.e., a glutamine synthetase inhibitor. A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance management strategies should be followed to mitigate or delay resistance. The following integrated weed management techniques are effective in reducing problems with herbicide resistant weed biotypes. It is best to use multiple practices to manage or delay resistance, as no single strategy is likely to be totally effective.

Contact your local BASF representative, crop advisor or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions.

Fields should be scouted prior to application to identify the weed species present and the growth to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.

Suspected herbicide-resistant weeds may be identified by these indicators:

Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.

A spreading patch of non-controlled plants of a particular weed species; and surviving plants mixed with controlled individuals of the same species.

Report an incidence of non-performance of this product against a particular weed species to your local extension specialists, certified crop advisor and/or BASF representative.

- **Rotate crops** - Crop rotation diversifies weed management.
- **Rotate herbicide-resistant traits** - Alternate herbicide-resistant (HR) traits and/or use HR trait stacks for more efficient rotation.
- **Use multiple herbicide sites of action** - Use tank mix partners and multiple sites of action during both the growing season and from year to year to reduce the selection pressure of a single site of action.
- **Know your weeds. Know your fields** - Closely monitor problematic areas with difficult-to-control weeds or dense weed populations.
- **Start with clean fields** - Effective tillage or the use of a burndown herbicide program can control emerged weeds prior to planting.
- **Stay clean. Use residual herbicides** - Regardless of tillage system, preemergence or early postemergence soil-applied residual herbicides should be used when possible.
- **Apply herbicides correctly** - Ensure proper application, including timing, full use rates and appropriate spray volumes.
- **Control weed escapes** - Consider using an herbicide with an alternative mechanism of action through broadcasting, spot treatment, and row wicking or non-chemical means to control escaped weeds such as hand removal of weeds or other techniques to stop weed seed production and improve weed management.
- **Zero tolerance. Reduce the seed bank - DO NOT** allow surviving weeds to set seed, which will help decrease weed populations from year to year and prevent major weed shifts.
- **Clean equipment** - Prevent the spread of herbicide-resistant weeds and their seeds.
- **Manage borders.** Prevent an influx of weeds into the field by managing borders.
- **Scout fields** before and after application.
- **Diversified approach.** To the extent possible, use a diversified approach towards weed management. Whenever possible, incorporate multiple weed-control practices including mechanical cultivation, biological management practices or crop rotation.

Contact your local extension specialist, certified crop advisory and/or BASF representative for additional resistance management or IPM recommendation. Also for more information on weed resistance management, visit the Herbicide Resistance Action Committee (HRAC) on the web at <http://www.hracglobal.com>.

## 7.0 MIXING INSTRUCTIONS

### 7.1 Mixing Instructions for BASF L-Glufosinate-Ammonium 211 herbicide

1. Start with properly calibrated and clean equipment.
2. Fill the spray tank half full with water.
3. Start agitation.
4. If mixing with a flowable/wettable powder tank mix partner, prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry to the spray tank.
5. Add ammonium sulfate (AMS) to the spray tank if needed.
6. If mixing with a liquid tank mix partner, add the liquid mix partner next.
7. Complete filling the spray tank with water before adding **BASF L-Glufosinate-Ammonium 211**, as foaming may occur.
8. Add **BASF L-Glufosinate-Ammonium 211** when tank is full and continue agitation.
9. If foaming occurs, use a silicone-based anti-foam agent.

Ensure that all spray system lines including pipes, booms, etc. have the correct concentration of spray solution by flushing out the spray system lines before starting the crop application.

If tank mix partners listed on this label are added, maintain thorough agitation at all times until contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

### 7.2 Compatibility Testing

If **BASF L-Glufosinate-Ammonium 211** is to be mixed with pesticide products not listed on this label, test the compatibility of the intended tank mixture prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1-quart jar.
2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16 fl ozs of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16 fl ozs of **BASF L-Glufosinate-Ammonium 211** to be applied per acre, add 0.5 teaspoon to the jar.
5. After adding all the ingredients, place a lid on the jar and tighten. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, **DO NOT** use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **STORAGE AND DISPOSAL** section of this label.

**BASF L-Glufosinate-Ammonium 211** is formulated to mix readily in water. Prior to adding **BASF L-Glufosinate-Ammonium 211** to the spray tank, ensure that the spray tank is thoroughly clean, particularly if a herbicide with the potential to injure crops was previously used (see **Cleaning Instructions**). It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and precautions and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Tank Mix Instructions.** **BASF L-Glufosinate-Ammonium 211** may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label restrictions and precautions. **DO NOT** exceed label dosage rates. **BASF L-Glufosinate-Ammonium 211** cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions.

## 7.3 Tank Mixing

**BASF L-Glufosinate-Ammonium 211 herbicide** does not provide residual weed control or control of unexposed plant parts. Certain herbicide tank mixes may aid in the performance of **BASF L-Glufosinate-Ammonium 211** or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. **BASF L-Glufosinate-Ammonium 211** may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label restrictions and precautions. **DO NOT** exceed label dosage rates.

**BASF L-Glufosinate-Ammonium 211** cannot be mixed with any product containing a label prohibition against such mixing.

## 7.4 Cleaning Instructions

### Prior To BASF L-Glufosinate-Ammonium 211 Use

Before using **BASF L-Glufosinate-Ammonium 211**, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter particularly if a herbicide with the potential to injure crops was previously used. Equipment must be thoroughly rinsed using a commercial tank cleaner and as instructed on the prior herbicide label.

### After BASF L-Glufosinate-Ammonium 211 Use

After using **BASF L-Glufosinate-Ammonium 211**, triple rinse the spray equipment and clean with a commercial tank cleaner before using the equipment for a new application. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

## 8.0 APPLICATION INSTRUCTIONS

Uniform, thorough spray coverage is important to achieve consistent weed control with **BASF L-Glufosinate-Ammonium 211**.

### 8.1 Ground Application

- Apply early when weeds are small as identified in the **Weeds Controlled** section.
- Apply **BASF L-Glufosinate-Ammonium 211** in a minimum of 15 gallons of water per acre. Increase to 20 gallons of water per acre for better coverage of large weeds, dense foliage, or when using larger spray droplets.

### 8.2 Nozzle Selection

Apply with nozzles and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1 unless otherwise mandated by tank mix product.

Addition of some drift retardants can significantly increase the droplet size and reduce spray coverage and efficacy. If a drift retardant is used, ensure that it is compatible for use with **BASF L-Glufosinate-Ammonium 211** and spray equipment being used.

### 8.3 Aerial Application

- Apply early when weeds are small as identified in the **Weeds Controlled** section.
- Apply **BASF L-Glufosinate-Ammonium 211** in a minimum of 10 gallons of water per acre.
- See the **Spray Drift Management** section of this label for additional information on proper application of **BASF L-Glufosinate-Ammonium 211**.

### 8.4 Adjuvant Instructions

- Ammonium sulfate (AMS) can be used at 1.5 lbs/A to 3 lbs/A. Rates are dependent on tank mix partners, environmental conditions, temperatures and potential for leaf burn.
- AMS has shown to improve weed control of difficult-to-control weeds, like velvetleaf and lambsquarters, under difficult environmental conditions (low relative humidity) or hard water.
- Anti-foam agent is advised.
- No additional surfactant is needed with any tank mix partner.

The use of additional surfactants or crop oils may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

## 9.0 MANDATORY SPRAY DRIFT MANAGEMENT

### 9.1 MANDATORY SPRAY DRIFT MITIGATIONS

#### 9.1.1 For Aerial and Ground Boom Applications:

- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- Select nozzle and pressure that deliver medium or coarser spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with American Society of Agricultural & Biological Engineers standards 572.1 and 641 (ASABE S572 and S641).
- During application, the Sustained Wind Speed, as defined by the National Weather Service (standard averaging period of 2 minutes) must register between 3 and 15 miles per hour.
- Wind speed must be measured at the release height or higher, in an area free from obstructions such as trees, buildings, and farm equipment.
- **DO NOT** apply during temperature inversions.

#### 9.1.2 For Aerial Applications:

- When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft to minimize drift caused by wing tip or rotor blade vortices.
- Wind speed and direction must be measured on location using a windsock, an anemometer (including systems to measure wind speed or velocity on an aircraft), or an aircraft smoke system.
- When the wind speed is between 11 to 15 miles per hour, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- When the wind speed is between 11 to 15 miles per hour, applicators must use a minimum of 3/4 swath displacement upwind at the downwind edge of the field. Otherwise, applicators must use a minimum of 1/2 swath displacement upwind at the downwind edge of the field.
- **DO NOT** release spray at a height greater than 10 ft above the crop canopy unless a greater application height is required for pilot safety.

#### 9.1.3 For Ground Boom Application:

- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but **DO NOT** exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions.
- Wind speed and direction must be measured on location using a windsock or anemometer (including systems to measure wind speed or velocity using application equipment).

### 9.2 Mandatory Spray Drift Buffers

#### 9.2.1 For aerial and ground applications, maintain a downwind buffer between the last spray row and the protection area as follows:

Application Method	Droplet Size Distribution (DSD)	Minimum Buffer Distance
Aerial	medium	50 ft
Ground	medium to coarser	10 ft

Protection areas include all areas with the following exceptions which can be included in the buffer footage, provided that people are not present within the application exclusion zone during the application, and they will not be contacted by the pesticide, either directly or through drift (see 40 CFR 170.405(a) and 40 CFR 170.505(a)):

- Agricultural fields, including untreated portions of the treated field.
- Roads, paved or gravel surfaces, mowed grassy areas adjacent to field, and areas of bare ground from recent plowing or grading that are contiguous with the treated area.
- Buildings and their perimeters, silos, or other man-made structures with walls and/or roof.
- Areas maintained as a mitigation measure for runoff/erosion or drift control, such as vegetative filter strips (VFS), field borders, hedgerows, Conservation Reserve Program lands (CRP), and other mitigation measures identified by EPA on the mitigation menu.<sup>1</sup>
- Managed wetlands including constructed wetlands on the farm.
- On-farm contained irrigation water resources that are not connected to adjacent water bodies, including on-farm irrigation canals and ditches, water conveyances, managed irrigation/runoff retention basins, and tailwater collection ponds.

<sup>1</sup> Growers must ensure that pesticide use does not cause degradation of the CRP habitat.



### 9.2.2 Aerial Spray Drift Buffer Reduction Options:

- A 20% (i.e., 10-foot) reduction in the required wind-directional buffer distance can be made if the applicator selects a nozzle and pressure that deliver coarse or coarser droplets in accordance with ASABE S572.
- A 35% (i.e., 18-foot) reduction can be made if the applicator selects a nozzle and pressure that delivers coarse droplets and uses an oil emulsion drift reducing adjuvant that constitutes 2.5% of the volume of the finished spray tank mix.
- A reduction in the required wind-directional buffer distance can be made if a windbreak or shelterbelt (e.g., trees or riparian hedgerows) between the application site and non-managed area is present and meets the criteria listed in the **Windbreak-Shelterbelt Criteria** section of this label. The reduction is 50% (i.e., 25 feet) if the windbreak or shelterbelt meets the basic windbreak-shelterbelt criteria and is 75% (i.e., 38 feet) if the windbreak or shelterbelt meets the advanced windbreak-shelterbelt criteria.
- The percent reduction in wind-directional buffer distances may be added if you use one droplet size buffer reduction option (coarse or coarse with an oil emulsion drift reducing adjuvant that constitutes 2.5% of the volume of the finished spray tank mix) and one windbreak-shelterbelt option (basic or advanced). The maximum buffer reduction that can be achieved by a combination of buffer reduction options is 100% (i.e., no drift buffer).

### 9.2.3 Ground Boom Spray Drift Buffer Reduction Options:

Any of the following options can reduce the ground buffer distance to 0 feet:

- Use of an oil emulsion drift reducing adjuvant that constitutes 2.5% of the volume of the finished spray tank mix.
- Application is made using an over-the-top hooded sprayer, as a layby application, or is made below the crop canopy using drop nozzles.
- Use of a row-middle hooded sprayer.
- If a windbreak or shelterbelt (e.g., trees or riparian hedgerows) between the application site and non-managed area is present and meets the criteria listed in the **Windbreak-Shelterbelt Criteria** section of this label.

## 9.3 Windbreak-Shelterbelt Criteria

Both basic and advanced windbreaks or shelterbelts (e.g., trees or riparian hedgerows) between the application site and non-managed area must be present and meet the following criteria for 50% and 75% wind-directional buffer distance reductions, respectively:

- The windbreak or shelterbelt must be downwind between the pesticide application and the non-managed area.
- The windbreak or shelterbelt must run the full length of the treated area with no significant breaks in the vegetation.
- The windbreak or shelterbelt foliage must be sufficiently dense such that the non-managed area is not visible from the upwind side at the time of application.
- The windbreak or shelterbelt must be planted according to local/regional/federal conservation program standards; however, no state or federally listed noxious or invasive trees or shrubs should be planted.
- The windbreak or shelterbelt must be maintained such that their functionality is not compromised.
- For basic windbreaks (50% reduction)
  - The height of the trees in the windbreak or shelterbelt must be at the same height or above the release height of the application.
  - The windbreak must have a minimum of one row of trees and/or shrubs or a 4-foot-wide strip of non-woody vegetation.
  - A semi-permeable manmade structure, curtain, or netting that is raised prior to application can be used instead of a windbreak or shelterbelt. This structure must be downwind between the pesticide application and the nonmanaged area, cover the entire distance of field adjacent to non-managed area, and at the same height or higher as the release height of the application.
- For advanced windbreak-shelterbelt (75% reduction)
  - The height of the trees in the windbreak or shelterbelt must be at a height that is at least twice as high as the release height of the application.
  - The windbreak or shelterbelt must have a minimum of two or more rows of trees and/or shrubs with a mixture of vegetation types (e.g., trees, shrubs, herbs), or that have 8 or more feet of depth for herbaceous (nonwoody) vegetation.
  - A semi-permeable manmade structure, curtain, or netting that is raised prior to application can be used instead of a windbreak or shelterbelt. This structure must be downwind between the pesticide application and the nonmanaged area, cover the entire distance of field adjacent to non-managed area, and at a height that is at least twice as high as the release height of the application.

See **ADDITIONAL SPRAY DRIFT INFORMATION** section below for more details.

## 10.0 ADDITIONAL SPRAY DRIFT INFORMATION:

This section is intended to provide additional information for applicators to assist in implementing the mandatory spray drift mitigations above. THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. Be aware of nearby non-target sites and environmental conditions.

### 10.1 Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Consider the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### 10.2 Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Consider using the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Using the lowest spray pressure recommended for the nozzle will produce the target spray volume and droplet size.
- **Spray Nozzle** - Consider using a spray nozzle that is designed for the intended application, as well as using nozzles designed to reduce drift.

### 10.3 Controlling Droplet Size - Aircraft

- **Adjust Nozzles** - Applicators should follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### 10.4 Release Height - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.

### 10.5 Release Height - Aircraft

Higher release heights increase the potential for spray drift.

### 10.6 Hooded (or Shielded) Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using hooded sprayers. Applicators should verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### 10.7 Temperature and Humidity

When making applications in hot and dry conditions, consider using larger droplets to reduce effects of evaporation.

### 10.8 Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

### 10.9 Wind

Drift potential generally increases with wind speed.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### 10.10 Measuring Wind Speed and Wind Direction

Applicators should check and acquire the predicted wind speed and direction for the application site within 12 hours prior to conducting applications to determine the time periods wind speed is likely to fall outside the applicable thresholds.

- Applicators should reassess wind speed and direction at the application site every 15 minutes while applications are in progress.
- Measuring wind speed and direction can be done by:
  - Relying on equipment on the application equipment that measures wind speed (e.g., aerial equipment).
  - Using a tower anemometer with telemetry or handheld anemometer. Users should read user manual on how to calibrate, operate and interpret the output from an anemometer. Ground applicators should stop every 15

minutes to take a reading with a tower anemometer with telemetry or handheld anemometer. Some anemometers may have software that would allow users to view wind measurements in real time while making an application, and, those cases, applicators would not have to stop to take measurements.

- Using a windsock. Wind can be estimated with a windsock using the strips on a windsock. The applicator should consult the user manual for the windsock on wind speed estimation and direction of wind. Applicators should look at the sock at least every 15 minutes to estimate wind speed and direction. The windsock should be pointed in the opposite direction of the windbreak and the non-managed area.
- Using an aircraft smoke system. Laying down several puffs of smoke along different lines using an aircraft smoke system can provide an accurate view of what the wind speed and direction for the application.
- Checking behind the spray rig at least every 15 minutes to see if the spray has changed direction from when the application started.

## 11.0 MANDATORY RUNOFF MITIGATION:

- **DO NOT** apply when soils are saturated or above field capacity.
- **DO NOT** apply during rain.

You must achieve a minimum of three points for the crop uses listed on this label unless otherwise stipulated below. Applicators must access and search Bulletins Live! Two (BLT) at <https://www.epa.gov/pesticides/bulletins> within six months of the application to determine whether the application site falls within a Pesticide Use Limitation Area (PULA) that has a Bulletin in BLT. If you are located inside a PULA, follow the instructions in the bulletin.

If the application site is located outside a PULA, runoff/erosion mitigation is required for this product unless certain field/application parameters are present at the time of application (i.e., subsurface or tile drains with controlled outlet, perimeter berm systems, irrigation tailwater return systems, spot treatment, etc). Access EPA's Mitigation Menu Website at [www.epa.gov/pesticides/mitigation-menu](http://www.epa.gov/pesticides/mitigation-menu) for a full list of field/application parameters to evaluate whether your field is subject to runoff/erosion mitigation.

If the application does not meet the specified field/application parameters, a minimum of three points for the crop uses listed on this label must be achieved. The applicator must choose among the mitigation and/or mitigation relief measures on EPA's Mitigation Menu Website to meet or exceed these points before applying this product. The website includes the full menu of runoff/erosion mitigation and mitigation relief measures. The following are examples:

- Location in a very low, low, or medium runoff vulnerability county
- Field slope
- Soil incorporation
- Conservation tillage
- Vegetative strips
- Cover crop or continuous ground cover
- Irrigation water management
- Mulching
- Grassed waterway
- Vegetated ditch
- Constructed and natural wetlands
- Water retention systems
- Following recommendations from a runoff/erosion specialist or participating in a qualifying conservation program (see the [www.epa.gov/pesticides/mitigation-menu](http://www.epa.gov/pesticides/mitigation-menu) for minimum elements).

To achieve mitigation points for the application, the mitigation and mitigation relief measures must be:

- Employed in accordance with the instructions and descriptions on EPA's Mitigation Menu Website.
- In place during the application unless a different timing (such as before or after application) is specifically provided in the measure's description on EPA's Mitigation Menu Website.
- EPA may periodically update the Mitigation Menu Website, for example, by adding new mitigation measures or updating a mitigation measure description.

## 12.0 ENDANGERED AND THREATENED SPECIES PROTECTION REQUIREMENTS

Before using this product, you must obtain any applicable Endangered Species Protection Bulletins (Bulletins) within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at <https://www.epa.gov/pesticides/bulletins>. When using this product, you must follow all directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of Federal law to use this product in a manner inconsistent with its



labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email ESPP@epa.gov.

## 13.0 GENERAL USE RESTRICTIONS (ALL CROPS)

### 13.1 Application Restrictions

- These restrictions are in addition to the crop specific restrictions.
- **DO NOT** apply when winds are gusty or when conditions will favor movement of spray particles off the desired spray target. See the **Spray Drift Management** section of this label for additional information on proper application of **BASF L-Glufosinate-Ammonium 211 herbicide**.
- **DO NOT** use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment.
- **DO NOT** apply L-glufosinate-ammonium 211 when soils are saturated or above field capacity.
- **DO NOT** apply L-glufosinate-ammonium 211 during rain.
- **DO NOT** apply using chemigation.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply aerially in non-glufosinate resistant crops.
- **DO NOT** apply more than the **combined maximum annual total** for both active ingredients when glufosinate ammonium and glufosinate-P-ammonium are used on the crop in the same year.

## 14.0 APPLICATION RATE AND WEEDS CONTROLLED

### 14.1 Use Rate Equivalency Table

Use the Use Rate Equivalency table to determine the corresponding amounts of active ingredient (glufosinate) from **BASF L-Glufosinate-Ammonium 211** product use rates.

#### Use Rate Equivalency for BASF L-Glufosinate-Ammonium 211 (1.76 lbs ai/gal)

Amount of BASF L-Glufosinate- Ammonium 211 (fl ozs/A)	Amount of L-glufosinate- ammonium (lb ai/A)	Amount of L-glufosinate- ammonium (lb ae/A)	Glufosinate- Ammonium Equivalent (lbs)
14.7	0.20	0.18	0.40
15	0.21	0.19	0.41
16	0.22	0.20	0.44
16.5	0.23	0.21	0.45
19	0.26	0.24	0.52
20	0.28	0.25	0.55
21	0.29	0.26	0.58
22	0.30	0.28	0.61
24	0.33	0.30	0.66
25	0.34	0.31	0.69
27	0.37	0.34	0.74
29	0.40	0.36	0.80
30	0.41	0.38	0.83
32	0.44	0.40	0.88
39	0.54	0.49	1.07
55	0.76	0.69	1.51
58	0.80	0.73	1.59

### 14.2 Weeds Controlled [Not registered for use by California]

For best results, apply to emerged, small and actively growing weeds less than 3 inches in height. Warm temperatures, high humidity, and bright sunlight improve the performance of **BASF L-Glufosinate-Ammonium 211**. Uniform, thorough spray coverage of weeds is necessary to achieve consistent weed control. Refer to the **Application Equipment** section for more details.

Weed control may be reduced when applications are made to weeds under stress including drought or cool temperatures and in dense populations. Stressed conditions may also include prior treatments of other contact or systemic herbicides. Regrowth of weeds may occur due to the weed stage of growth at application, use rate, or environmental conditions at the time of application.

When any of these conditions exist, select a higher rate within the label rate range to improve weed control.

<b>Weeds Controlled at 14.7 to 21 fl ozs/A (0.20 to 0.29 lb ai/A) [16.5 to 21 fl ozs (0.23 to 0.29 lb ai/A)]</b>	
<b>Broadleaf Weeds</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Anoda, spurred	<i>Anoda cristata</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Black medic	<i>Medicago lupulina</i> L.
Blueweed, Texas	<i>Helianthus ciliaris</i> DC.
Buckwheat, wild	<i>Polygonum convolvulus</i>
Buffalobur	<i>Solanum cornutum</i>
Burcucumber	<i>Sicyos angulatus</i>
Canola, volunteer <sup>1</sup>	<i>Brassica</i> spp.
Carpetweed	<i>Mollugo verticillata</i>
Catchweed bedstraw (cleavers)	<i>Galium aparine</i> L.
Chickweed, common	<i>Stellaria media</i>
Cocklebur, common	<i>Xanthium strumarium</i>
Copperleaf, hophornbeam	<i>Acalypha ostryaefolia</i>
Cotton, volunteer <sup>1</sup>	<i>Gossypium</i> spp.
Croton, tropic	<i>Croton glandulosus</i>
Croton, woolly	<i>Croton capitatus</i>
Devil's claw	<i>Proboscidea louisiana</i>
Eclipta	<i>Eclipta alba</i>
Fleabane, annual	<i>Erigeron annuus</i>
Galinsoga, hairy	<i>Galinsoga ciliate</i>
Galinsoga, smallflower	<i>Galinsoga parviflora</i>
Geranium, cutleaf	<i>Geranium dissectum</i> L.
Groundcherry, cutleaf	<i>Physalis angulata</i>
Hempnettle	<i>Galeopsis</i> spp.
Horsenettle, Carolina <sup>2</sup>	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>
Knotweed	<i>Polygonum</i> spp.
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, common	<i>Chenopodium album</i>
Mallow, common	<i>Malva</i> spp.
Mallow, Venice	<i>Hibiscus trionum</i>
Marsh elder, annual	<i>Iva annua</i>
Morningglory, entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>
Morningglory, pitted	<i>Ipomoea lacunosa</i>
Morningglory, sharppod	<i>Ipomoea cordatotriloba</i>
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomoea purpurea</i>
Mustard, wild	<i>Sinapis arvensis</i>

(continued)

<b>Weeds Controlled at 14.7 to 21 fl ozs/A (0.20 to 0.29 lb ai/A) [16.5 to 21 fl ozs (0.23 to 0.29 lb ai/A)]</b> (continued)	
<b>Broadleaf Weeds</b> (continued)	
<b>Common Name</b>	<b>Scientific Name</b>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, eastern black	<i>Solanum ptycanthum</i>
Nightshade, hairy	<i>Solanum sarrachoides</i>
Pennycress	<i>Thlaspi arvense</i>
Pigweed, prostrate	<i>Amaranthus blitoides</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Pigweed, spiny	<i>Amaranthus spinosus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, common	<i>Portulaca oleracea</i>
Ragweed, common	<i>Ambrosia artemisiifolia</i>
Ragweed, giant	<i>Ambrosia trifida</i>
Senna, coffee	<i>Cassia occidentalis</i>
Sesbania, hemp	<i>Sesbania herbacea</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Sicklepod (java bean)	<i>Senna obtusifolia</i>
Sida, prickly	<i>Sida spinosa</i> L.
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smell melon	<i>Cucumis melo</i> L. var. <i>dudaim</i>
Sowthistle, annual	<i>Sonchus oleraceus</i> L.
Soybeans, volunteer <sup>1</sup>	<i>Glycine max</i>
Spurge, prostrate	<i>Euphorbia humifusa</i>
Spurge, spotted	<i>Euphorbia maculata</i> L.
Starbur, bristly	<i>Acanthospermum hispidum</i>
Sunflower, common	<i>Helianthus annuus</i>
Sunflower, prairie	<i>Corythucha pura</i>
Sunflower, volunteer	<i>Helianthus annuus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
<b>Grass Weeds</b>	
Barley, volunteer <sup>2</sup>	<i>Hordeum vulgare</i>
Barnyardgrass	<i>Echinochloa</i> spp.
Bluegrass, annual	<i>Poa annua</i> L.
Corn, volunteer <sup>1</sup>	<i>Zea mays</i> L.
Crabgrass, large <sup>3</sup>	<i>Digitaria sanguinalis</i>
Crabgrass, smooth <sup>3</sup>	<i>Digitaria ischaemum</i>
Cupgrass, woolly	<i>Eriochloa villosa</i>
Foxtail, bristly	<i>Setaria verticillata</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, robust purple	<i>Setaria viridis</i>
Foxtail, yellow <sup>3</sup>	<i>Setaria pumila</i>

(continued)

<b>Weeds Controlled at 14.7 to 21 fl ozs/A (0.20 to 0.29 lb ai/A) [16.5 to 21 fl ozs (0.23 to 0.29 lb ai/A)]</b> (continued)	
<b>Grass Weeds</b> (continued)	
<b>Common Name</b>	<b>Scientific Name</b>
Goosegrass <sup>2</sup>	<i>Eleusine indica</i>
Johnsongrass, seedling	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Millet, proso volunteer	<i>Milium vernale</i>
Millet, wild proso	<i>Panicum miliaceum</i> L.
Oat, wild <sup>3</sup>	<i>Avena fatua</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Rice, red	<i>Oryza sativa</i> L.
Rice, volunteer <sup>1</sup>	<i>Oryza sativa</i>
Shattercane	<i>Sorghum vulgare</i> Pers.
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>
Sorghum, volunteer	<i>Sorghum</i> spp.
Sprangletop	<i>Leptochloa</i> spp.
Stinkgrass	<i>Eragrostis cilianensis</i>
Wheat, volunteer <sup>3</sup>	<i>Triticum</i> spp.
Witchgrass	<i>Panicum virgatum</i> L.
<b>Additional Weeds Controlled at 19 to 29 fl ozs/A (0.26 to 0.40 lb ai/A)</b>	
<b>Broadleaf Weeds</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Kochia	<i>Kochia scoparia</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatus</i>
Marestail <sup>3</sup>	<i>Conyza canadensis</i>
Pusley, Florida	<i>Richardia scabra</i>
Thistle, Russian <sup>2</sup>	<i>Salsola kali</i>
<b>Grass Weeds</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Sandbur, field <sup>3</sup>	<i>Cenchrus pauciflorus</i>
<b>Biennial and Perennial Weeds</b>	
<b>Common Name</b>	<b>Scientific Name</b>
Alfalfa	<i>Medicago sativa</i> L.
Bermudagrass	<i>Cynodon dactylon</i>
Bindweed, field	<i>Convolvulus arvensis</i> L.
Bindweed, hedge	<i>Calystegia sepium</i>
Bluegrass, Kentucky	<i>Poa pratensis</i> L.
Blueweed, Texas	<i>Helianthus ciliaris</i> DC.
Bromegrass, smooth	<i>Bromus inermis</i>
Burdock	<i>Arctium</i> spp.
Bursage, woollyleaf	<i>Ambrosia grayi</i>
Chickweed, mouse-ear	<i>Cerastium vulgatum</i> L.
Clover, red	<i>Trifolium pratense</i> L.

(continued)

Additional Weeds Controlled at 19 to 29 fl ozs/A (0.26 to 0.40 lb ai/A) (continued)	
Biennial and Perennial Weeds (continued)	
Common Name	Scientific Name
Dandelion	<i>Taraxacum officinale</i>
Dock, smooth*	<i>Rumex</i> spp.
Dogbane, hemp*	<i>Apocynum cannabinum</i>
Goldenrod, gray	<i>Solidago nemoralis</i>
Johnsongrass, rhizome	<i>Sorghum halepense</i>
Milkweed, common*	<i>Asclepias syriaca</i>
Milkweed, honeyvine*	<i>Ampelamus albidus</i>
Muhly, wirestem*	<i>Muhlenbergia frondosa</i>
Nightshade, silverleaf	<i>Solanum elaeagnifolium</i>
Nutsedge, purple*	<i>Cyperus rotundus</i>
Nutsedge, yellow*	<i>Cyperus ferax</i>
Orchardgrass	<i>Dactylis glomerata</i> L.
Poinsettia, wild*	<i>Euphorbia heterophylla</i> L.
Pokeweed	<i>Phytolacca</i> L.
Quackgrass	<i>Agropyron repens</i>
Sowthistle, perennial	<i>Sonchus arvensis</i> L.
Thistle, bull*	<i>Cirsium vulgare</i>
Thistle, Canada	<i>Cirsium arvense</i>
Timothy*	<i>Phleum pratense</i> L.
Wormwood, biennial	<i>Artemisia biennis</i>

\* Suppression only.

<sup>1</sup> Volunteer **LibertyLink**® crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application may be needed.

<sup>2</sup> May require sequential applications for control.

<sup>3</sup> For best control of yellow foxtail, field sandbur, crabgrass, wild oats, and volunteer wheat, treat prior to tiller initiation.

## 15.0 CROP SPECIFIC DIRECTIONS FOR USE

To determine the combined annual total amount of equivalent glufosinate-ammonium from all glufosinate-containing products (L-glufosinate-ammonium and glufosinate-ammonium) refer to **Section 14.1 Use Rate Equivalency Table** to determine the equivalent amount of glufosinate-ammonium (lb ai/A) being applied with the use of **BASFL-Glufosinate-Ammonium 211 herbicide** and add that to the glufosinate-ammonium (lb ai/A) being applied from the use of another glufosinate-containing product. **DO NOT** exceed the equivalent of 1.59 lbs glufosinate-ammonium per acre per year from all glufosinate-containing products.

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

**DO NOT** use this product until you have read the entire label. **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.

In the State of Hawaii and territory of Puerto Rico, use only allowed for corn, cotton, and soybean seed production/propagation (**LibertyLink** or glufosinate-resistant and conventional), including seed increase.

In the State of **New York** Only: Not For Use In Nassau and Suffolk Counties.

## 15.1 Canola [Not registered for use by California]

### 15.1.1 LibertyLink® or Glufosinate-resistant Canola In-crop Applications

Apply **BASF L-Glufosinate-Ammonium 211 herbicide** only to canola labeled as **LibertyLink** or glufosinate-resistant. Uniform, thorough spray coverage is necessary to achieve optimum weed control.

<b>Application Timing</b>	<ul style="list-style-type: none"><li>• Cotyledon up to early bolt stage of <b>LibertyLink</b> or glufosinate-resistant canola.</li><li>• Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.</li></ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"><li>• Apply 15 to 19 fl ozs/A depending on weed species, size and density per the <b>Weeds Controlled</b> section.</li><li>• Up to 2 applications in crop may be applied with a minimum of 7 days between applications.</li></ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"><li>• Up to 39 fl ozs/A may be used per year if no burndown application was used.</li><li>• If a burndown application was used the maximum per year is 58 fl ozs/A.</li></ul>

### 15.1.2 LibertyLink® or Glufosinate-resistant Canola for Seed Propagation

**BASF L-Glufosinate-Ammonium 211** may be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that do not carry a gene that imparts resistance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the glufosinate-ammonium resistance gene will be severely injured or killed if treated with this herbicide.

<b>Application Timing</b>	<ul style="list-style-type: none"><li>• Cotyledon up to early bolt stage of <b>LibertyLink</b> or glufosinate-resistant canola.</li><li>• Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.</li></ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"><li>• Apply 15 to 19 fl ozs/A.</li><li>• Up to 3 applications in crop may be applied with a minimum of 7 days between applications.</li></ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"><li>• Maximum per year is 58 fl ozs/A.</li></ul>

### 15.1.3 Burndown Use Prior to Planting or Prior to Emergence of LibertyLink® or Glufosinate-resistant Canola

**BASF L-Glufosinate-Ammonium 211** may be applied as a burndown treatment prior to planting or prior to emergence of **LibertyLink** or glufosinate-resistant canola. Use of **BASF L-Glufosinate-Ammonium 211** for burn-down use prior to planting **LibertyLink** or glufosinate-resistant crops will limit the amount of **BASF L-Glufosinate-Ammonium 211** that may be used in-crop. Refer to the maximum amount per year for the total amount of **BASF L-Glufosinate-Ammonium 211** that may be used.

<b>Application Timing</b>	<ul style="list-style-type: none"><li>• Prior to planting, prior to emergence of crop or postharvest burndown.</li></ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"><li>• Apply 19 to 29 fl ozs/A depending on weed species and intention of post application use. Please see the following application charts.</li></ul>

### 15.1.4 Crop Specific Restrictions

- **DO NOT** use on **LibertyLink** or glufosinate-resistant canola in the states of Alabama, Delaware, Georgia, Kentucky, Maryland, New Jersey, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.
- **DO NOT** use in Hawaii and Puerto Rico except for use on **LibertyLink** or glufosinate-resistant canola for seed propagation.
- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211** within 65 days of harvesting **LibertyLink** or glufosinate-resistant canola.

- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211 herbicide** if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply more than 19 fl ozs/A (0.26 lb ai/A) in a single application for in crop use.
- **DO NOT** apply more than 2 applications in-crop per year.
- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application for burndown use.
- **DO NOT** apply more than 3 applications including burndown per year.
- **DO NOT** allow a retreatment interval of less than 7 days.
- **DO NOT** apply **more** than three applications of **BASF L-Glufosinate-Ammonium 211** to **LibertyLink®** or glufosinate-resistant canola for seed propagation.
- If applying to canola for seed propagation, **DO NOT** use treated canola seed for food, feed or oil purposes.
- **DO NOT** apply **more** than 29 fl ozs/A (0.40 lb ai/A) in a single application for burndown in **LibertyLink** or glufosinate-resistant canola.
- **DO NOT** make more than 1 application per year for burndown use for **LibertyLink** or glufosinate-resistant canola.
- **DO NOT** apply more than 58 fl ozs/A (0.80 lb ai/A) per year for **LibertyLink** or glufosinate-resistant canola.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

## 15.2 Field Corn and Silage Corn [Not registered for use by California]

### 15.2.1 LibertyLink® or Glufosinate-resistant Field Corn and LibertyLink® or Glufosinate-resistant Silage Corn In-crop Applications

Apply **BASF L-Glufosinate-Ammonium 211** only to corn labeled as **LibertyLink** or glufosinate-resistant. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Applications of **BASF L-Glufosinate-Ammonium 211** on **LibertyLink** or glufosinate-resistant corn may be made with drop nozzles from emergence until **LibertyLink** or glufosinate-resistant corn is 36 inches tall. Avoid spraying into the whorl or leaf axils of the corn stalks. Uniform, thorough spray coverage of weeds is necessary to achieve consistent weed control.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Emergence through V6 stage of growth.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 19 to 29 fl ozs/A depending on weed species, size and density per the <b>Weeds Controlled</b> section.</li> <li>• Up to 3 applications may be applied with a minimum of 7 days between applications up to a maximum of 58 fl ozs/A per year.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>• 58 fl ozs/A</li> </ul>



### 15.2.2 LibertyLink® or Glufosinate-resistant Field Corn for Seed Propagation

**BASF L-Glufosinate-Ammonium 211 herbicide** may be used in field corn seed propagation as a foliar spray to selectively eliminate corn plants that do not carry a gene that imparts resistance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during corn seed propagation. Breeding material not possessing the glufosinate-ammonium resistance gene will be severely injured or killed if treated with this herbicide.

<b>Application Timing</b>	• Emergence through V6 stage of growth or 24 inches tall.
<b>Application Use Rate</b>	• Apply 15 fl ozs/A.
	• Up to 2 applications may be applied with a minimum of 10 days between applications up to a maximum of 30 fl ozs/A per year.
<b>Maximum per Year</b>	• 30 fl ozs/A

### 15.2.3 Burndown Use Prior to Planting or Prior to Emergence of LibertyLink® or Glufosinate-resistant Field Corn

**BASF L-Glufosinate-Ammonium 211** may be applied as a burndown treatment prior to planting or prior to emergence of **LibertyLink** or glufosinate-resistant Field corn. Use of **BASF L-Glufosinate-Ammonium 211** for burn-down use prior to planting **LibertyLink** or glufosinate-resistant crops will limit the amount of **BASF L-Glufosinate-Ammonium 211** that may be used in-crop. Refer to the maximum amount per year for the total amount of **BASF L-Glufosinate-Ammonium 211** that may be used.

<b>Application Timing</b>	• Prior to planting, prior to emergence of crop.
<b>Application Use Rate</b>	• Apply 19 to 29 fl ozs/A depending on weed species and intention of post application use. Please see the following application charts.

**Table 15.2.3. Use Rates for Burndown Applications for LibertyLink or Glufosinate-resistant Field Corn**

<b>Burndown</b> (fl ozs/A)	<b>Additional In-crop Applications if a Burndown Application Made</b>	<b>Maximum Per Year</b> (fl ozs/A)
19 to 29	Up to 2 applications at 19 to 29 fl ozs/A	58

### 15.2.4 Crop Specific Restrictions

- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211** within 60 days of harvesting corn forage and within 70 days of harvesting corn grain and corn fodder.
- **DO NOT** apply more than 58 fl ozs/A (0.80 lb ai/A) of **BASF L-Glufosinate-Ammonium 211** on **LibertyLink** or glufosinate-resistant field corn per year.
- **DO NOT** use nitrogen solutions as spray carriers.
- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211** if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application except for corn grown for seed propagation.
- **DO NOT** apply more than 15 fl ozs/A (0.21 lb ai/A) in a single application for corn grown for seed propagation.
- **DO NOT** apply more than 2 applications in-crop per year.
- **DO NOT** apply more than 3 applications when using reduced rates including burndown use per year.
- **DO NOT** allow a retreatment interval of less than 7 days for in-crop use.
- **DO NOT** allow a retreatment interval of less than 10 days for corn seed propagation use.
- **DO NOT** use on **LibertyLink** or glufosinate-resistant field corn/silage corn grown in California.
- **DO NOT** apply more than 2 applications for corn seed propagation per year.



- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application for burndown in **LibertyLink®** or glufosinate-resistant Field corn.
- **DO NOT** make more than 1 application per year for burndown use for **LibertyLink** or glufosinate-resistant Field corn.
- **DO NOT** use in Hawaii and Puerto Rico except for use on **LibertyLink** or Glufosinate-resistant Field Corn (field and silage) for Seed Propagation.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

### 15.3 Sweet Corn [Not registered for use by California]

#### 15.3.1 LibertyLink® or Glufosinate-resistant Sweet Corn In-crop Applications

Apply **BASF L-Glufosinate-Ammonium 211 herbicide** only to sweet corn labeled as **LibertyLink** or glufosinate-resistant. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Emergence through V6 stage of growth.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 14.7 fl ozs/A.</li> </ul>
	<ul style="list-style-type: none"> <li>• Up to 2 applications may be applied with a minimum of 7 days between applications.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>• 30 fl ozs/A</li> </ul>

#### 15.3.2 Burndown Use Prior to Planting or Prior to Emergence of LibertyLink® or Glufosinate-resistant Sweet Corn

**BASF L-Glufosinate-Ammonium 211** may also be applied as a burndown treatment prior to planting or prior to emergence of **LibertyLink** or glufosinate-resistant Sweet corn. **BASF L-Glufosinate-Ammonium 211** may also be used as a substitute for tillage in fallow fields to control or suppress weeds. Use of **BASF L-Glufosinate-Ammonium 211** for burn-down use prior to planting **LibertyLink** or glufosinate-resistant crops will limit the amount of **BASF L-Glufosinate-Ammonium 211** that may be used in-crop. Refer to the maximum amount per year for the total amount of **BASF L-Glufosinate-Ammonium 211** that may be used.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Prior to planting, prior to emergence of crop.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 19 to 29 fl ozs/A depending on weed species and intention of post application use. Please see the following application charts.</li> </ul>

#### 15.3.3 Crop Specific Restrictions

- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211** within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.
- If **BASF L-Glufosinate-Ammonium 211** was used in a burndown application, **DO NOT** make post-emergence applications to the crop.
- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211** if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply more than two applications of **BASF L-Glufosinate-Ammonium 211** to sweet corn per year.
- **DO NOT** allow a retreatment interval of less than 7 days.
- **DO NOT** apply more than 14.7 fl ozs/A (0.20 lb ai/A) in a single application for in-crop applications.
- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) of **BASF L-Glufosinate-Ammonium 211** on sweet corn per year.
- **DO NOT** use on **LibertyLink** or glufosinate-resistant sweet corn grown in California.

- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application for burndown in **LibertyLink®** or glufosinate-resistant Sweet corn.
- **DO NOT** make more than 1 application per year for burndown use for **LibertyLink** or glufosinate-resistant sweet corn.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

## 15.4 Cotton [Not registered for use by California]

### 15.4.1 LibertyLink® or Glufosinate-resistant Cotton In-crop Applications

Apply **BASF L-Glufosinate-Ammonium 211 herbicide** only to cotton labeled as **LibertyLink** or glufosinate-resistant. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Tank mixes with emulsifiable concentrate (EC) formulations may result in temporary crop injury. These tank mixes are not advised when cotton plants are exhibiting slow growth or vigor.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Emergence up to early bloom.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 19 to 29 fl ozs/A depending on weed species, size, and density per the <b>Weeds Controlled</b> section.</li> </ul>
	<ul style="list-style-type: none"> <li>• Up to 3 applications may be applied with a minimum of 10 days between applications up to a maximum of 58 fl ozs/A per year.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>• 58 fl ozs/A</li> </ul>

### 15.4.2 LibertyLink® or Glufosinate-resistant Cotton for Seed Propagation

**BASF L-Glufosinate-Ammonium 211** may be used in cotton seed propagation as a foliar spray to selectively eliminate cotton plants that do not carry a gene that imparts resistance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during cotton seed propagation. Breeding material not possessing the glufosinate-ammonium resistance gene will be severely injured or killed if treated with this herbicide.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Emergence up to early bloom.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 19 to 29 fl ozs/A.</li> </ul>
	<ul style="list-style-type: none"> <li>• Up to 3 applications may be applied with a minimum of 10 days between applications up to a maximum of 58 fl ozs/A per year.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>• 58 fl ozs/A</li> </ul>

### 15.4.3 Burndown Use Prior to Planting or Prior to Emergence of LibertyLink® or Glufosinate-resistant Cotton

**BASF L-Glufosinate-Ammonium 211** may also be applied as a burndown treatment prior to planting or prior to emergence of **LibertyLink** or glufosinate-resistant Cotton. **BASF L-Glufosinate-Ammonium 211** may also be used as a substitute for tillage in fallow fields to control or suppress weeds. Use of **BASF L-Glufosinate-Ammonium 211** for burn-down use prior to planting **LibertyLink** or glufosinate-resistant crops will limit the amount of **BASF L-Glufosinate-Ammonium 211** that may be used in-crop. Refer to the maximum amount per year for the total amount of **BASF L-Glufosinate-Ammonium 211** that may be used.

<b>Burndown</b> (fl ozs/A)	<b>Additional In-crop Applications if a Burndown Application Made</b>	<b>Maximum Per Year</b> (fl ozs/A)
22 to 29	Up to 1 application at 22 to 29 fl ozs/A	58

#### 15.4.4 Non-glufosinate-resistant Cotton In-crop Applications (Directed Application with Hooded Sprayer)

Application of **BASF L-Glufosinate-Ammonium 211 herbicide** to cotton varieties **not labeled as LibertyLink®** or glufosinate-resistant requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Tank mixes with emulsifiable concentrate (EC) formulations may result in temporary crop injury. These tank mixes are not advised when cotton plants are exhibiting slow growth or vigor.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>Emergence up to early bloom.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>Apply 19 to 29 fl ozs/A per application depending on weed species, size and density per the <b>Weeds Controlled</b> section.</li> </ul>
	<ul style="list-style-type: none"> <li>Up to 3 applications may be applied with a minimum of 10 days between applications up to a maximum of 58 fl ozs/A per year.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>58 fl ozs/A</li> </ul>

#### Application Methods to Non-glufosinate-resistant Cotton

Application of **BASF L-Glufosinate-Ammonium 211** to non glufosinate-resistant cotton varieties requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. A hooded sprayer directs the spray onto weeds, while shielding the cotton stand from contact. Use nozzles that provide uniform coverage within the treated area. Keep hoods on these sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid exposure of the desirable vegetation to the spray.

With a hooded sprayer, the spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. If the hoods are raised, spray particles may escape and come into contact with the cotton, causing damage or destruction of the crop.

Herbicide rates and spray volume instructions are presented as broadcast equivalents and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast RATE per acre} = \text{Amount of banded product needed per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast spray VOLUME per acre} = \text{Banded spray volume needed per acre}$$

#### 15.4.5 Crop Specific Restrictions

- DO NOT** apply **BASF L-Glufosinate-Ammonium 211** to cotton in Florida, south of Tampa (Florida Route 60), or in Hawaii or Puerto Rico, except for test plots, breeding nurseries or seed propagation.
- DO NOT** apply **BASF L-Glufosinate-Ammonium 211** within 70 days prior to cotton harvest.
- DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) per application for burndown use.
- DO NOT** make more than 1 burndown application per year for **LibertyLink** or glufosinate-resistant cotton.
- DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) per application for in-crop use including seed propagation.
- DO NOT** apply more than 58 (0.80 lb ai/A) fl ozs per year.
- DO NOT** apply more than 3 applications per year when using reduced rates.
- If a burndown application is made, **DO NOT** apply more than 2 in-crop applications per year.
- DO NOT** allow a retreatment interval of less than 10 days.

- Refer to **Rotational Crop Restrictions** under the **Product Information** section of this label for the appropriate rotational crop plant-back intervals.
- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) per application.
- **DO NOT** apply in crop to non-glufosinate-resistant cotton except with a hooded sprayer.
- **DO NOT** tank mix **BASF L-Glufosinate-Ammonium 211 herbicide** with both an EC formulation herbicide and acephate insecticide.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

## 15.5 Soybean [Not registered for use by California]

### 15.5.1 LibertyLink® or Glufosinate-resistant Soybean In-crop Applications

Apply **BASF L-Glufosinate-Ammonium 211** only to soybean designated as **LibertyLink** or glufosinate-resistant. Uniform, thorough spray coverage is necessary to achieve optimum weed control.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Emergence up to but not including bloom or R1 growth stage.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 19 to 29 fl ozs/A depending on weed species, size and density per the <b>Weeds Controlled</b> section.</li> </ul>
	<ul style="list-style-type: none"> <li>• Up to 2 in-crop applications may be applied with a minimum of 5 days between applications up to a maximum of 58 fl ozs/A per year.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>• 58 fl ozs/A</li> </ul>

### 15.5.2 LibertyLink® or Glufosinate-resistant Soybean for Seed Propagation

**BASF L-Glufosinate-Ammonium 211** may be used in soybean seed propagation as a foliar spray to selectively eliminate cotton plants that do not carry a gene that imparts resistance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during cotton seed propagation. Breeding material not possessing the glufosinate-ammonium resistance gene will be severely injured or killed if treated with this herbicide.

<b>Application Timing</b>	<ul style="list-style-type: none"> <li>• Emergence up to but not including bloom or R1 growth stage.</li> </ul>
<b>Application Use Rate</b>	<ul style="list-style-type: none"> <li>• Apply 19 to 29 fl ozs/A depending on size and density.</li> </ul>
	<ul style="list-style-type: none"> <li>• Up to 2 in-crop applications may be applied with a minimum of 5 days between applications up to a maximum of 58 fl ozs/A per year.</li> </ul>
<b>Maximum per Year</b>	<ul style="list-style-type: none"> <li>• 58 fl ozs/A</li> </ul>

### 15.5.3 Burndown Use Prior to Planting or Prior to Emergence of LibertyLink® or Glufosinate-resistant Soybean

**BASF L-Glufosinate-Ammonium 211** may also be applied as a burndown treatment prior to planting or prior to emergence of **LibertyLink** or glufosinate-resistant Soybean. **BASF L-Glufosinate-Ammonium 211** may also be used as a substitute for tillage in fallow fields to control or suppress weeds. Use of **BASF L-Glufosinate-Ammonium 211** for burn-down use prior to planting **LibertyLink** or glufosinate-resistant crops will limit the amount of **BASF L-Glufosinate-Ammonium 211** that may be used in-crop. Refer to the maximum amount per year for the total amount of **BASF L-Glufosinate-Ammonium 211** that may be used.

<b>Burndown</b> (fl ozs/A)	<b>Additional In-crop Applications if a Burndown Application Made</b>	<b>Maximum Per Year</b> (fl ozs/A)
19 to 29	Up to 2 applications at 19 to 29 fl ozs/A	58

#### 15.5.4 Crop Specific Restrictions

- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211 herbicide** within 70 days of harvesting **LibertyLink®** or Glufosinate-resistant soybean resistant soybean seed.
- **DO NOT** apply more than 58 fl ozs/A (0.80 lb ai/A) of **BASF L-Glufosinate-Ammonium 211** on **LibertyLink** or glufosinate-resistant soybeans per year.
- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application.
- **DO NOT** make more than 2 in-crop applications per acre per year.
- **DO NOT** apply more than 3 applications per year when using reduced rates.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply **BASF L-Glufosinate-Ammonium 211** if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** allow a retreatment interval of less than 5 days.
- **DO NOT** make more than 1 application per year for burndown use for **LibertyLink** or glufosinate-resistant soybean.
- **DO NOT** use in Hawaii and Puerto Rico except for use on **LibertyLink** or Glufosinate-resistant soybean for seed propagation.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

#### 15.6 Burndown Use Prior to Planting or Prior to Emergence of Non-glufosinate resistant crops (Canola, Field, Corn, Sweet Corn, Cotton, Soybean)

[Not registered for use by California]

**BASF L-Glufosinate-Ammonium 211** may be applied as a burndown treatment prior to planting or prior to emergence of non-glufosinate-resistant canola, field corn, sweet corn, cotton or soybean. Refer to the maximum amount per year for the total amount of **BASF L-Glufosinate-Ammonium 211** that may be used.

Crop	Burndown (fl ozs/A)	Additional In-crop Applications if a Burndown Application Made	Maximum Per Year (fl ozs/A)
Non-glufosinate-resistant Canola, Field corn, Sweet Corn, or Soybean	19 to 29	None	29
Non-glufosinate-resistant Cotton	19 to 29	1 application at 21 to 29 fl oz/A	58

#### Restrictions to the Directions for Burndown Use in/on Non-glufosinate-resistant Canola, Field Corn, Sweet Corn, Cotton, or Soybean

- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application for burndown in non-glufosinate-resistant canola, non-glufosinate-resistant field corn, non-glufosinate-resistant sweet corn, non-glufosinate-resistant cotton, or non-glufosinate-resistant soybean.
- **DO NOT** make more than 1 application per year for burndown use for non-glufosinate-resistant canola, non-glufosinate-resistant field corn, non-glufosinate-resistant sweet corn, non-glufosinate-resistant cotton, or non-glufosinate-resistant soybean.
- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) per year for non-glufosinate-resistant canola, non-glufosinate-resistant field corn, non-glufosinate-resistant sweet corn, or non-glufosinate-resistant soybean.
- **DO NOT** make any in-crop applications for non-glufosinate-resistant canola, non-glufosinate-resistant field corn, non-glufosinate-resistant sweet corn, or non-glufosinate-resistant soybean.
- **DO NOT** apply more than 58 fl ozs/A (0.80 lb ai/A) per year for non-glufosinate-resistant cotton.
- **DO NOT** apply in crop to non-glufosinate-resistant cotton except with a hooded sprayer. See applications directions for cotton for more information.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

## 15.7 Fallow Fields and Postharvest Uses Associated with Canola, Field Corn, Sweet Corn, Cotton and Soybean Production [Not registered for use by California]

**BASF L-Glufosinate-Ammonium 211 herbicide** may be used for the control of listed weeds on fields following canola, corn, sweet corn, cotton and soybean harvest and for the control of listed weeds on fallow fields prior to planting canola, field corn, sweet corn, cotton and soybean.

### Restrictions to the Directions for Use in Fallow Fields and Postharvest

- **DO NOT** apply more than 29 fl ozs/A (0.40 lb ai/A) in a single application to fallow fields or postharvest in a single application per year.
- **DO NOT** make more than 1 application in fallow fields or postharvest per year.
- If **BASF L-Glufosinate-Ammonium 211** is applied according to labeled crop use on the same acre, **DO NOT** exceed the **Maximum annual use Rate** (as stated in **Section 13.0 General Use Restrictions**) from sequential applications of **BASF L-Glufosinate-Ammonium 211** when applied to fallow fields or postharvest.
- These crop specific restrictions are in addition to the **Section 13.0 General Use Restrictions (All Crops)**.

## 16.0 ROTATIONAL CROP RESTRICTIONS

Rotational crop planting intervals following application of **BASF L-Glufosinate-Ammonium 211** are listed below. Failure to comply with these restrictions may result in illegal residues in rotated crops.

Rotational Crop	Plant-back Interval (minimum rotational crop planting interval from last application)
Canola, Corn, Sweet Corn, Cotton, Soybean	May be planted at any time
Cover Crops*	7 days
Brassica Leafy Vegetables, Leafy Vegetables, Root and Tuber Vegetables, and Small Grains (barley, buckwheat, oats, rye, teosinte, triticale, and wheat)	70 days
Other Crops	180 days
<p>* Planting of cover crops for conservation purposes may be planted in fields previously treated with <b>BASF L-Glufosinate-Ammonium 211</b> as long as these cover crops are not grazed by livestock nor harvested for food. For best results, <b>DO NOT</b> plant cover crops less than 7 days after an application of <b>BASF L-Glufosinate-Ammonium 211</b> nor before 1/2 inch of rainfall or irrigation has occurred. Planting sooner than this may result in stand reduction. Planting of crops listed in the <b>Rotational Crop Restrictions</b> that follow the listed planting intervals and other restrictions are considered a rotational crop and therefore may be harvested.</p>	



## 17.0 CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

### Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, 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 weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

1108

[OPTIONAL marketing claim: Powered by Glu-L™ Technology]

*Glu-L is a trademark of BASF.*

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We create chemistry

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## APPENDIX

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[Note to PM/reviewer: This summary table may appear on placards located on the side(s) of tote packaging or on cartons of packaged goods.]

### IMPORTANT NOTE:

**BASF L-Glufosinate-Ammonium 211 herbicide** has different rate structures than other glufosinate-ammonium containing products. Pay careful attention to the rate requirements on the label. You must read and follow the **BASF L-Glufosinate-Ammonium 211** label before using.