

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

sylvania Ave., N.W.

103810-4

EPA Reg. Number:

Date of Issuance:

10/31/2024

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance:
Unconditional

Name of Pesticide Product:

Lektor

Name and Address of Registrant (include ZIP Code):

Rainbow Supply Chain USA, LLC c/o Pyxis Regulatory Consulting Inc. 4110 136th St. Ct. NW Gig Harbor, WA 98332

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/registration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Heather & Mc Farley	10/31/2024
Heather McFarley, Acting Product Manager 24	
Fungicide and Herbicide Branch, Registration Division (7505P)	
Office of Pesticide Programs	

EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 103810-4."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the 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 Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements 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 Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSF:

• Basic CSF dated 7/03/2024

If you have any questions, please contact Sayed Islam by phone at 202-566-2796, or via email at islam.sayed@epa.gov

Enclosure:

Accepted label

[1 of 30]

Mestorione Group 27 Herbicide

## Lektor

# {ABN:}[Mestrong, Prism Mesotrione 4, Prismatic Mesotrione 4]

Controls annual broadleaf weeds in Corn (field, seed, yellow pop, sweet), and other listed crops. Provides selective and residual control of weeds in Ornamental Turfgrasses.

Active Ingredient:	By Weight
Mesotrione: 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione	40.0%
Other Ingredients:	<u>60.0%</u>
TOTAL:	100.0%
Contains 4 lbs. Mesotrione per gallon.	

# KEEP OUT OF REACH OF CHILDREN CAUTION

	FIRST AID
IF IN EYES	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF ON SKIN	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF INHALED	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
IF SWALLOWED	<ul> <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>DO NOT induce vomiting unless told to do so by the poison control center or doctor.</li> <li>DO NOT give anything to an unconscious person.</li> </ul>
Have the produc	t container or label with you when calling a poison control at <b>1-800-222-1222</b> center or doctor,

Have the product container or label with you when calling a poison control at **1-800-222-1222** center or doctor, or going for treatment.

#### **HOT LINE NUMBER**

For 24-Hour Medical Emergency Assistance (Human or Animal) call: **1-800-222-1222**. For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) call CHEMTREC: **1-800-424-9300**.

[See] [inside] [label] [booklet] [side] [panel] [for] [First Aid][,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal] [instructions][.]

EPA Reg. No.: 103810-XX
EPA Est. No.:
Net Contents:

Manufactured [By][For]:

Rainbow Supply Chain USA, LLC 919 North Market Street, Suite 950 Wilmington, DE 19801

# ACCEPTED

10/31/2024

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 40004004

103810-4

# PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals CAUTION

Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing.

#### Personal Protection Equipment (PPE)

#### **Applicators and Other Handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical Resistant gloves (barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, poly-ethylene, polyvinyl chloride (PVC) ≥ 14 mils, and viton ≥ 14 mils)

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.

#### **USER SAFETY RECOMMENDATIONS**

#### **Users should:**

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove and wash contaminated clothing before reuse.
- 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.

#### **Engineering Control Statements**

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

#### **Environmental Hazards**

**DO NOT** apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment wash water or rinsate.

#### **SURFACE WATER ADVISORY:**

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

**NON-TARGET ORGANISM ADVISORY:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**GROUND WATER ADVISORY:** Mesotrione is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

#### **Physical and Chemical Hazards**

**DO NOT** use or store near heat or open flame.

#### **DIRECTIONS FOR USE**

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

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

#### **AGRICULTURAL USE REQUIREMENTS**

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

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

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

- coveralls
- shoes plus socks
- chemical resistant gloves (barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, poly-ethylene, polyvinyl chloride (PVC) ≥ 14 mils, and viton ≥ 14 mils)

#### **NON-AGRICULTURAL USE REQUIREMENTS**

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

DO NOT enter treated areas without protection clothing until sprays have dried.

#### PRODUCT INFORMATION

**Lektor** is a systemic pre-emergence and post-emergence herbicide for selective contact and residual control of broadleaf weeds in field corn, seed corn, yellow popcorn, sweet corn, sorghum (grain and sweet), sugarcane and other listed crops. If used pre-emergence, weeds take up the product through the soil during emergence. Dry weather conditions can reduce pre-emergent effectiveness of **Lektor**. If at least ¼-inch of rainfall does not occur within 7-10 days of application, rotary hoeing is recommended to activate the product. If used post-emergence, vulnerable weeds take up the product through treated foliage and stop growing soon after application. It may take up to two weeks for weeds to die. **Lektor** is absorbed by soil and/or through foliage of emerged weeds.

**Lektor** will not control most species of grass weeds. **Lektor** can be tank-mixed with other herbicides registered to control grass weeds (see tank-mix information in this label for additional information). **Lektor** can be used in combination with a burndown herbicide prior to planting to provide weed control in field corn, seed corn, yellow popcorn, and sweet corn.

#### WEED RESISTANCE MANAGEMENT

For resistance management, **Lektor** is a Group 27 herbicide. Any weed population may contain or develop plants naturally resistant to **Lektor** and other Group 27 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **Lektor** or other Group 27 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses
  historical information related to herbicide use and crop rotation, and that considers tillage (or other
  mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application
  method and timing to favor the crop and not the weeds), biological (weed-competitive crops or
  varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development.
- Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For futher information or to report suspected resistance, contact Rainbow Supply Chain USA, LLC at

The efficacy of **Lektor** is not affected by the presence of biotype weed species that are resistant to Protoporphyrinogen Oxidase (PPO), 4-Hydroxyphenylpyruvate Dioxygenase (HPPD) or Acetolactate Synthase (ALS) inhibiting herbicides or to Triazine or Glyphosate herbicides.

To reduce the risk of weeds developing resistance to mesotrione in corn, always use full specified label rates. If additional herbicide is needed, use an herbicide product other than a HPPD inhibitor (Group 27 Herbicide). Use full label rates of **Lektor** to prevent selection for, or population shifts toward, marginally tolerant weed species and/or species biotypes.

#### **INTEGRATED WEED PEST MANAGEMENT**

Integrate **Lektor** into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

#### **USE PRECAUTIONS - LEKTOR**

- Severe corn injury can result from post-emergent application of **Lektor** to corn treated with products containing the active ingredients terbufos or chlorpyrifos.
- Severe corn injury and/or yield loss can occur if foliar post-emergent applications of **Lektor** are made to corn in a tank mix with any organophosate or carbamate insecticide.
- Severe corn injury and/or yield loss can occur if an organophosphate or carbamate insecticide is applied foliar post-emergence within 7 days before or 7 days after **Lektor** application.
- When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures
  control can be reduced or delayed since the weeds are not actively growing. Weed escapes or regrowth
  may occur when application is made under prolonged stress conditions. Optimum weed control will be
  obtained if an application of **Lektor** is made following label directions when weeds are actively growing.
- Lektor may be applied with pyrethroid type insecticides (e.g., Lambda cyhalothrin).

#### **USE RESTRICTIONS - LEKTOR**

- DO NOT apply this product to white popcorn or ornamental (Indian) corn.
- **DO NOT** cultivate corn within 7 days before or after application of this product as weed control may be reduced.
- **DO NOT** apply this product through any type of irrigation system unless specified under the specific crop section of the label.
- **DO NOT** apply this product with suspension fertilizers as the carrier.
- **DO NOT** apply this product post-emergence in a tank mix with emulsifiable concentrate grass herbicides, unless specifically directed under one of the tank mix sections of this label, or crop injury can occur.
- **DO NOT** make aerial applications of this product unless specified in the specific crop directions of this label.

#### **MANDATORY SPRAY DRIFT MANAGEMENT**

#### **Aerial Applications:**

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must select nozzle and pressure that deliver medium or courser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 641 (ASABE S641). If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, 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.
- **DO NOT** apply during temperature inversions.

#### **Ground Boom Applications:**

- **DO NOT** release spray at a height greater than 3 feet above the ground or crop canopy.
- Applicators must select nozzle and pressure that deliver medium or courser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

#### **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use 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.

#### **Controlling Droplet Size – Ground Boom**

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use 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** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size – Aircraft**

• Adjust Nozzles – Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT - Ground Boom**

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

#### **SHIELDED SPRAYERS**

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

#### **TEMPERATURE AND HUMIDITY**

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

#### **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.

#### **WIND**

Drift potential generally increases with wind speed. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

For best results with aerial application of this product, each type of airplane and helicopter used should be quantifiably pattern tested initially and every year thereafter.

Apply **Lektor** when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat, for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### **AERIAL APPLICATION INSTRUCTIONS FOR CORN AND SUGARCANE**

Aerial application of Lektor is permitted only on corn and sugarcane. Make aerial application with nozzles that produce coarse to very coarse droplets. DO NOT use nozzles producing fine to medium size droplets. CORN: Lektor is approved for aerial application for pre-emergence and post-emergence control in corn in the states of: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Nebraska, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

**SUGARCANE:** Lektor is approved for aerial application for pre-emergence and post-emergence control in sugarcane in the states of: Florida, Louisiana, and Texas.

Make aerial applications in a minimum of 2 gallons water per acre.

#### PRE-EMERGENCE GROUND APPLICATION INSTRUCTIONS

Apply **Lektor** pre-emergence with a carrier volume of 10-60 gals./A.

Space spray nozzles of the same size and type uniformly to provide accurate and uniform coverage. Use medium to coarse droplet size nozzles to ensure coverage and avoid drift. Apply in a spray volume of 10-60 gals./A with water or liquid fertilizer (NOT suspension fertilizer) as the carrier. Use a pump that will maintain pump pressure of 35-40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures can be used with extended range or drift reduction nozzles.

Maintain constant agitation until spraying is complete, even if stopping for brief periods of time. If agitation is stopped for longer than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying.

#### POST-EMERGENCE GROUND APPLICATION INSTRUCTIONS

Space spray nozzles of the same size and type uniformly to provide accurate and uniform coverage. Use medium to coarse droplet size nozzles to ensure coverage and avoid drift. Complete weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications must be based on the height of the crop, at least 15 inches above the crop canopy.

Apply in a spray volume of 10-30 gals./A with water as the carrier. Use a pump that will maintain pump pressure of 35- 40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures can be used with extended range or drift reduction nozzles. If weed foliage is dense, use a minimum of 20 gals.

Apply with flat fan nozzles 80°-100° for optimum post-emergent coverage. **DO NOT** use flood jet nozzles or controlled droplet application equipment for post-emergence applications.

Angle nozzles forward 45° to enhance product penetration and provide better coverage. In-line strainers and nozzle screens must be a minimum of 50-mesh or coarser.

Maintain constant agitation until spraying is complete, even if stopping for brief periods of time. If agitation is stopped for longer than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying.

#### **USE DIRECTIONS WITH SPRAY ADDITIVES**

#### **Post-Emergence Adjuvants**

It is recommended that any adjuvant used with **Lektor** meet the certification program requirements of the Chemical Producers and Distributors Association (CPDA). The following recommendations are mainly for use in corn. For other crops refer to the specific crop use directions.

#### Adjuvant Use in Post-Emergence applications to Field and Seed Corn

After corn has emerged, add 1.0 gal./100 gals. of water (1.0% v/v) Crop Oil Concentrate (COC) to the spray solution. 1 qt./100 gals. of water (0.25% v/v) of a non-ionic surfactant (NIS) can be used, but better weed control is achieved with the use of a COC compared to NIS.

**DO NOT** use methylated seed oil (MSO) or MSO adjuvant blends for post-emergence applications of **Lektor** or severe crop injury can occur. **DO NOT** use MSO adjuvants unless it is specifically permitted in the **Tank Mixtures for Corn** section of this label, or if permitted by a state-specific supplemental label.

In addition to COC, add 2.5% (v/v) a spray grade UAN (e.g., 28-0-0) to the spray solution, or 8.5 lbs./100 gallons of ammonium sulfate (AMS), except if precluded elsewhere on this label or a state-specific supplemental label.

#### Adjuvant Use Post-Emergence to Sweet and Pop Yellow Corn

**DO NOT** use UAN or AMS on sweet and yellow popcorn as severe crop injury can occur.

Use a NIS instead of a COC to reduce the likelihood of crop injury. COCs will maximize weed control under dry growing conditions, but will significantly injure crops under lush growing conditions. To optimize weed control, add atrazine wherever rotational or local atrazine restrictions allow.

#### **Pre-Emergence Adjuvant Use**

Any adjuvant approved for use on agriculture is permitted when making **Lektor** pre-plant or pre- emergence applications. MSO adjuvants perform better than COC and NIS adjuvants under pre-plant/pre-emergence conditions. UAN and AMS adjuvants will provide better weed control than not using any adjuvant. If **Lektor** is being tank-mixed with another registered herbicide, refer to the tank mix partner label for adjuvant precautions and restrictions.

#### **SPRAY EQUIPMENT CLEANING**

It is important to follow the procedures below for cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as is needed.

- 1) Flush tank, hoses, boom, and nozzles with clean water.
- 2) Prepare cleaning solution of 1 gal. of household ammonia per 25 gals. of water. Commercial spray tank cleaners can be used in lieu of ammonia/water solution.
- 3) Using a pressure washer, clean the inside of the spray tank with the cleaning solution. Wash ALL parts of the tank, including the inside top surface. If a pressure washer is not available, fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and recirculate the cleaning solution for a minimum of 15 minutes. All visible deposits of spray solution must be removed from the spray tank before making any other applications.
- 4) Flush hoses, spray lines, and nozzles with cleaning solution for a minimum of 1 minute.
- 5) Dispose of rinsate from steps 1-3 in an appropriate manner.
- 6) Repeat steps 2-5.
- 7) Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the previous steps.
- 8) Rinse the complete spray system with clean water.

#### **MIXING INSTRUCTIONS**

See the **Crop Use Directions** sections of the label for specific tank mix instructions.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive label limitations and precautions.

#### MIXING RESTRICTIONS

- DO NOT exceed any dosage rates specified on labels.
- DO NOT mix this product with any product containing a label prohibition against such mixing.
- **DO NOT** tank mix **Lektor** with any other insecticide, fungicide, fertilizer, or adjuvant not specified on this label without first testing compatibility, as poor mixing can occur. Test compatibility on a small scale (such as a jar test) before actual tank mixing.

#### MIXING PROCEDURE

- 1. Use sprayers in good operating condition with good agitation. Ensure that the sprayer is cleaned according to the label instructions of the product used prior to **Lektor**. For post-emergence applications, use clean water only for the spray solution. Ensure that all in-line strainers and nozzle screens in the sprayer are 50-mesh or coarser. **DO NOT** use screens finer than 50-mesh.
- 2. Use liquid fertilizer (NOT suspension fertilizer) as the carrier for pre-emergence applications.
- 3. Start filling spray tank or pre-mix tank with clean water and begin agitation. Maintain constant agitation.
- 4. When sprayer or pre-mix tank is half full of water, add AMS, maintaining agitation until dispersed.
- 5. Add **Lektor** slowly and agitate until completely dissolved. Wait at least 1 minute after the last of the **Lektor** has been added to allow for complete dispersion. If using cold water, a longer agitation period may be required to ensure adequate dispersing.
- 6. If tank mixing, add the tank mix product.
- 7. Add the adjuvant and UAN, if needed, and continue to fill tank to desired level with water.

#### **LEKTOR WEED CONTROL TABLES**

Lektor applied as directed in this label will control or partially control the weeds listed in Tables 1 and 2.

Partial control means either erratic control (good to poor control) or control that is below what is generally regarded as acceptable control for commercial weed control.

For best post-emergence results, apply **Lektor** to actively growing weeds.

Dry weather following pre-emergence applications may reduce efficacy of residual weed control. If irrigation is available, apply ½-1-inch water after pre-emergence application. If irrigation is not available, make a uniform shallow cultivation as soon as weeds emerge.

**Lektor** applied alone or in a tank-mix with atrazine will not provide consistent or adequate control of weeds that are resistant to post-emergence HPPD inhibiting herbicides.

Refer to the crop sections of this label for specific use directions and application rates.

Table 1. Weeds Controlled with Post-Emergence Applications of Lektor

Common Name	Scientific Name	Lektor 3 Fl. Oz./A (0.094 lb. AI/A)	Lektor <sup>1</sup> 2.5-3.0 Fl. Oz./A (0.078-0.094
		Applied Alone	lb. AI/A) + Atrazine
		Apply to We	eas <5" Tall-
Amaranth, palmer	Amaranthus palmeri	PC <sup>+</sup>	C <sup>+</sup>
Amaranth, powell	Amaranthus powellii	С	С
Amaranth, spiny	Amaranthus spinosus	С	С
Atriplex	Chenopodium orach	С	С
Broadleaf signalgrass	Urochloa platyphylla	C <sup>+</sup>	C <sup>+</sup>
Buckwheat, wild	Polygonum convolvulus	PC	PC
Buffalobur	Solanum rostratum	С	С
Burcucumber	Sicyos angulatus	PC	C <sup>+</sup>

Carpetweed	Mollugo verticillata	С	С
Carrot, wild	Daucus carota	PC	С
Chickweed, common	Stellaria media	С	С
Cocklebur, common	Xanthum strumarium	С	С
Crabgrass, large	Digitaria sanguinalis	C <sup>+</sup>	C+
Dandelion	Taraxacum officinale	NC	PC
Dock, curly	Rumex crispus	PC	PC
Galinsoga	Galinsoga parviflora	С	С
Hemp	Cannabis sativa	С	С
Horsenettle	Solanum carolinense	PC	С
Jimsonweed	Datura stramonium	С	С
Horseweed (marestail)	Conyza canadensis	PC	С
Knotweed, prostrate	Polygonum aviculare	PC	PC
Kochia	Kochia scoparia	PC <sup>+</sup>	C <sup>+</sup>
Lambsquarters, common	Chenopodium album	С	С
Mallow, Venice	Hibiscus trionum	NC	С
Morningglory, entireleaf	Ipomoea hederacea	PC	С
Morningglory, ivyleaf	Ipomoea hederacea	PC	С
Morningglory, pitted	Ipomoea lacunosa	PC	С
Mustard, wild	Brassica kaber	С	С
Nightshade, black	Solanum nigrum	С	С
Nightshade, Eastern black	Solanum ptychanthum	С	С
Nightshade, hairy	Solanum sarrachoides	С	С
Nutsedge, yellow	Cyperus esculentus	PC	PC
Pigweed, redroot	Amaranthus retroflexus	С	С
Pigweed, smooth	Amaranthus hybridus	С	С
Pigweed, tumble	Amaranthus albus	С	С
Pokeweed, common	Phytolacca americana	PC	PC
Potatoes, volunteer	Solanum spp.	С	С
Pusley, Florida	Richardia scabra	C <sup>+</sup>	C <sup>+</sup>
Ragweed, common	Ambrosia artemisiifolia	PC	С
Ragweed, giant	Ambrosia trifida	C <sup>+</sup>	С
Sesbania, hemp	Sesbania exaltata	С	С
Sida, prickly (teaweed)	Sida spinosa	NC	C <sup>+</sup>
Smartweed, ladysthumb	Polygonum persicaria	C <sup>+</sup>	С
Smartweed, pale	Polygonum lapathifolium	C <sup>+</sup>	C
Smartweed, Pennsylvania	Polygonum pensylvanicum	C <sup>+</sup>	С
Sunflower, common	Helianthus annuus	С	С
Thistle, Canada	Circium arvense	NC	PC
Velvetleaf	Abutilon theophrasti	С	С
Waterhemp, common	Amaranthus rudis	C <sup>+</sup>	С
Waterhemp, tall	Amaranthus tuberculatus	C <sup>+</sup>	С
17.**			·

<sup>&</sup>lt;sup>1</sup>**Lektor** tank mixture with atrazine is approved only for use on corn and sugarcane.

C = Control

NC = Not Controlled

PC = Partial Control

<sup>&</sup>lt;sup>2</sup>Weeds can be controlled at larger than listed sizes; however, to protect crop yield, manage weed resistance, and provide effective control, treat weeds before they reach 5" tall.

<sup>&</sup>lt;sup>+</sup>Apply before weeds exceed 3" tall.

Table 2. Weeds Controlled with Pre-Emergence Applications of Lektor

Common Name	Scientific Name	Lektor Applied Alone	Lektor + Atrazine¹
Amaranth, palmer	Amaranthus palmeri	С	С
Amaranth, powell	Amaranthus powellii	С	С
Amaranth, spiny	Amaranthus spinosus	С	С
Broadleaf signalgrass	Urochloa platyphylla	PC	PC
Buffalobur	Solanum rostratum	С	С
Carpetweed	Mollugo verticillata	С	С
Chickweed, common	Stellaria media	С	С
Cocklebur, common	Xanthum strumarium	PC	С
Crabgrass, large	Digitaria sanguinalis	PC	PC
Galinsoga	Galinsoga parviflora	С	С
Jimsonweed	Datura stramonium	С	С
Kochia	Kochia scoparia	PC	С
Lambsquarters, common	Chenopodium album	С	С
Morningglory, entireleaf	Ipomoea hederacea	PC	С
Morningglory, ivyleaf	Ipomoea hederacea	PC	С
Morningglory, pitted	Ipomoea lacunosa	PC	С
Nightshade, Eastern black	Solanum ptychanthum	С	С
Nightshade, hairy	Solanum sarrachoides	С	С
Pigweed, redroot	Amaranthus retroflexus	С	С
Pigweed, smooth	Amaranthus hybridus	С	С
Pigweed, tumble	Amaranthus albus	С	С
Ragweed, common	Ambrosia artemisiifolia	С	С
Ragweed, giant	Ambrosia trifida	PC	С
Smartweed, ladysthumb	Polygonum persicaria	С	С
Smartweed, pale	Polygonum lapathifolium	С	С
Smartweed, Pennsylvania	Polygonum pensylvanicum	С	С
Sunflower, common	Helianthus annuus	PC	С
Velvetleaf	Abutilon theophrasti	С	С
Waterhemp, common	Amaranthus rudis	С	С
Waterhemp, tall	Amaranthus tuberculatus	С	С

<sup>&</sup>lt;sup>1</sup>Lektor tank mixture with atrazine is approved only for use on corn, grain sorghum and sugarcane. Refer to the crop sections on this label for specific use directions.

#### **ROTATIONAL CROP INTERVALS**

If **Lektor** is applied alone follow the crop rotation intervals listed below in Table 3. If **Lektor** is tank-mixed with other products, then follow the most restrictive product's crop rotation interval.

Table 3. Time Interval between Lektor Application and Replanting/Planting of Rotational Crop

Replant/Rotational Interval	Стор
	Asparagus, Corn (all types), Cranberry, Flax, Kentucky bluegrass gown for seed, Pearl
Anytime	Millet, Oats, Rhubarb, Ryegrass (perennial and annual) grown for seed, Sorghum (grain
	and sweet), Sugarcane, Tall fescue grown for seed
4 Months	Small grain cereals (wheat, barley, rye)
10 Months	Alfalfa, Blueberry, Canola, Cotton, Currant, Lingonberry, Okra, Peanuts, Peas*, Potato,
10 Months	Rice, Snap Beans*, Soybeans, Sunflowers, Tobacco
18 Months	Cucurbits, Dry beans, Red Clover, Sugar Beets, All other crops

<sup>\*</sup>Plant these rotation crops ONLY if the criteria listed below have been met. If all criteria have NOT been met, plant peas and snap

C = Control PC = Partial Control

beans a minimum of 18 months following Lektor application.

- A minimum of 20 inches of rainfall plus irrigation has occurred between application and planting of the rotational crop.
- Soil pH is greater than 6.0.
- 3 fl. oz./A (0.094 lb. AI/A) or less of this product has been applied no later than June 30<sup>th</sup> the year preceding rotational crop planting.
- No other HPPD herbicides (e.g., products containing these active ingredients: mestotrione, S-metolachlor, glyphosate, atrazine, topramezone, isoxaflutole, thiencarbazone-methyl, and tembotrione) were applied the year prior to planting peas and snap beans.
- DO NOT plant peas or snap beans on sand, sandy loam, or loamy sand soils in Minnesota or Wisconsin.

#### **CROP USE DIRECTIONS - CORN**

Apply **Lektor** by ground for pre-emergence or post-emergence weed control in field corn, seed corn, yellow popcorn, and sweet corn. Apply **Lektor** to corn up to 30" tall or up to the 8-leaf stage of corn growth to control broadleaf and grass weeds listed in Tables 1 and 2.

Aerial applications of Lektor can be made pre-emergence or post-emergence in the following states: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming

See seed company instructions for use on field corn inbred lines. Special adjuvant restrictions must be followed for post- emergence applications of **Lektor** in yellow popcorn or sweet corn (see the **Spray Additives** section of this label). **DO NOT** apply **Lektor** to white popcorn or ornamental (Indian) corn.

Post-emergence application of **Lektor** to yellow popcorn and sweet corn hybrids may cause crop bleaching. Bleach is transitory and will not affect final yield or quality. Herbicide sensitivity, however, can vary widely in yellow popcorn and sweet corn, and all hybrids of these have not been tested. Contact your local popcorn/sweet corn company, Fieldman, or University Specialist to learn about hybrid recommendations before making a post-emergence application of **Lektor** to yellow popcorn or sweet corn. **DO NOT** include nitrogen based adjuvants (UAN or AMS) when making post-emergence applications of **Lektor** to yellow popcorn or sweet corn.

Temporary transient bleaching may occur in field corn treated with **Lektor** post-emergence under extreme weather conditions or when the crop is under stress. Field corn will quickly outgrow this condition and develop normally.

#### **Corn Restrictions:**

- **DO NOT** apply more than 7.7 fl. oz. (0.24 lb. mesotrione AI) of **Lektor** per year.
- **DO NOT** make more than 2 applications per year.
- **DO NOT** exceed 3.0 fl. oz. (0.094 lb. AI/A) in a single post-emergence application.
- **DO NOT** exceed 7.7 fl. oz. (0.24 lb. AI/A) in a single pre-emergence application.
- Only one post-emergence application may be made if **Lektor** has been applied pre-emergence.
- **DO NOT** make a second application of **Lektor** within 14 days of the first application.
- **DO NOT** feed or harvest forage, grain, or stover within 45 days after application.
- Applications made at rates lower than 3.0 fl. oz./A. (0.094 lb. AI/A) post-emergence may not provide adequate weed control and may result in reduced residual control.
- **DO NOT** exceed a total of 6.0 fl. oz./A (0.19 lb. Al/A) for the two post-emergence applications.
- If a post-emergence application of Lektor was made to ground that received pre-emergence treatment

of another mesotrione-containing herbicide, atrazine can be tank mixed with **Lektor**. Refer to atrazine product label for use directions and restrictions.

- If mixing **Lektor** with atrazine, **DO NOT** apply to corn taller than 12".
- Treat corn up to 30" tall or up to the 8-leaf stage of growth.

#### **Lekctor Used Alone – Post-Emergence**

Apply 3.0 fl. oz./A (0.094 lb. Al/A) per application. Always add an appropriate adjuvant to the spray tank (see the **Spray Additives** section of this label).

Apply to actively growing weeds. See Table 1 for a complete list of weeds controlled. Susceptible weeds that emerge post-application may be controlled after the herbicide is absorbed into the soil. **Lektor** will not control most grass weeds.

#### Lektor Used Alone - Pre-Emergence

Apply 6.0-7.7 fl. oz./A (0.19-0.24 lb. Al/A) by ground sprayer in 10-30 gals. of water per acre to control broadleaf weeds (up to 80 gals. if applied with liquid fertilizer). See Table 2 for a complete list of weeds controlled. **Lektor** can be tank mixed with other approved pre-emergence grass herbicides to control grasses. Refer to the tank mix section for a list of tank-mix partners.

#### **Lektor Tank Mixtures for Corn**

Apply **Lektor** in tank mix with other registered herbicides to improve spectrum of weed control in burndown, pre-emergence, or post-emergence applications. These tank mixtures can also be used to include a different mode of action herbicide to control and manage the development of resistant weed biotypes.

#### **Burndown Tank Mixtures in Corn**

Apply Lektor in tank mixture with other registered herbicides for burndown and residual weed control.

Apply 3.0 fl. oz./A (0.094 lb. Al/A) **Lektor** with products containing paraquat, glyphosate, dicamba and/or 2,4-D ester for improved broadleaf weed control with limited residual control before planting corn and before corn emergence. For better residual control, apply 6.0-7.7 fl. oz./A (0.19-0.24 lb. Al/A) of **Lektor** (see Table 2) with the products listed. Use the adjuvant system specified by the burndown herbicide. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

#### **Pre-Emergence Tank Mixture in Corn**

Apply 5.3-7.7 fl. oz./A (0.17-0.24 lb. Al/A) of **Lektor** in tank mixture with other registered herbicides (Table 4) for pre-emergence residual weed control. Refer to Table 2 for a list of weeds controlled by **Lektor** applied pre-emergence.

**Table 4. Lektor Tank Mixtures for Pre-Emergence Application in Corn** Refer to the individual product labels of the products listed for precautionary statements, restrictions, use rates, approved uses, and a list of weeds controlled.

Atrazine Acetochlor + Atrazine Acetochlor

Atrazine + S-Metolachlor S-Metolachlor Atrazine + Dimethenamid-P

Dimethanamid-P Atrazine + Glyphosate + S- Pendimethalin

Metolachlor

#### **Post-Emergence Tank Mixtures in Corn**

See Table 5 below for a list of tank mixtures that can be applied after corn has emerged. **DO NOT** apply less than 3.0 fl. oz./A (0.094 lb. Al/A) of **Lektor** unless specified on this label or on a state-specific supplemental label, as a loss of residual control can occur.

Always add an appropriate adjuvant to the spray tank (See the Spray Additives section of this label). Refer to the

individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled. Not all of the tank mix pesticides listed are registered for use on field corn, yellow popcorn, or sweet corn.

#### Table 5. Lektor Tank Mixtures for Post-Emergence Application to Corn

Refer to the individual product labels for products listed for precautionary statements, restrictions, use rates, approved uses, and a list of weeds controlled.

Tank Mix Partner	Use Directions
Atrazine	See Table 1 for application rates and list of weeds controlled.
Nicosulfuron	This mixture will provide additional grass control. Refer to the product label for a list of weeds controlled.
Sodium Bentazon	This mixture will provide additional broadleaf weed control. Refer to the product label for a list of weeds controlled.
Thifensulfuron + Rimsulfuron	This mixture will provide additional weed control. Refer to the product label for a list of weeds controlled.
Atrazine + S- Metolachlor	DO NOT use nitrogen based adjuvants (UAN or AMS); apply as post-directed spray.  DO NOT use crop oil concentrate (COC); use a non-ionic surfactant (NIS) to avoid crop injury.  Control of emerged weeds can be reduced due to the adjuvant effect on weed coverage.
Bormoxynil Octanoate	This mixture will provide additional broadleaf weed control. Add bromoxynil octanoate at a rate specified on the label.
Atrazine + Glyphosate + S- Metolachlor	Use only on glyphosate tolerant corn (e.g., Agrisure® GT, Roundup Ready®). Crop death will occur if this mixture is applied to a corn hybrid that is not glyphosate tolerant. <b>DO NOT</b> add urea ammonium nitrate (UAN) or methylated seed oil (MSO) adjuvants to this mixture or crop injury can occur.
Glufosinate	Use only on corn designated as LibertyLink® or warranted as tolerant to glufosinate.  Use of this mixture on corn hybrids not tolerant to glufosinate will result in severe crop injury or death.  DO NOT use crop oil concentrate (COC) as an adjuvant or crop injury can occur.
lmazapyr + Imazethapyr	Use only on corn designated at Clearfield® corn or warranted by BASF as tolerant to imazapyr + imazethapyr. Use of this mixture on corn hybrids not tolerant to imazapyr + imazethapyr will result in severe crop injury or death.  DO NOT use Methylated Seed Oil (MSO) or any MSO blend with this mixture or severe crop injury can occur.
Dicamba + Primisulfuron- Methyl	This mixture will control additional weeds. See product label for list of weeds controlled.
Prosulfuron	This mixture will control additional weeds. See product label for list of weeds controlled.
Primisulfuron- Methyl + Prosulfuron	This mixture will control additional weeds. See product label for list of weeds controlled.
Nicosulfuron + Rimsulfuron	This mixture will control additional weeds. See product label for list of weeds controlled.
Nicosulfuron + Thifensulfuron- Methyl	This mixture will control additional weeds. See product label for list of weeds controlled.

Glyphosate	Use only on glyphosate tolerant corn (e.g., Agrisure GT, Roundup Ready).
	Use of this mixture on corn hybrids that are not glyphosate tolerant will result in crop death.
	Add spray-grade ammonium sulfate (AMS) at a rate that delivers 8.5-17.0 lbs. of AMS/100 gals. of
	water.
	If the glyphosate product calls for an adjuvant in addition to AMS, add 0.25-0.5% v/v (1-2
	quarts/100 gallons) of a non-ionic surfactant (NIS).
	<b>DO NOT</b> add urea ammonium nitrate (UAN), crop oil concentrate (COC) or methylated seed oil
	(MSO) adjuvants to this tank mixture or crop injury can occur.

#### **CROP USE DIRECTIONS – ASPARAGUS**

**Lektor** can be applied broadcast or banded at a rate of 3.0-7.7 fl. oz./A (0.094-0.24 lb. AI/A) to asparagus as a spring application prior to spear emergence, as a post-harvest application (after final harvest), or both.

Use the 3.0 fl. oz./A (0.094 lb. AI/A) rate for post-emergence control or partial control of the emerged weeds listed in Table 1. Use the 6.0-7.7 fl. oz./A (0.19-0.24 lb. AI/A) rate for pre-emergence control or partial control of the weeds listed in Table 2. For banded applications, the application must be made to account for band width, i.e., to deliver 3.0-7.7 fl. oz. per treated acre (0.094-0.24 lb. AI/A). For the best pre- emergence weed control with spring applications, **Lektor** must be applied after fern mowing, disking, or other tillage operation but prior to asparagus spear emergence.

When making post-harvest applications, the rate applied pre-emergence in the spring must be taken into account so as not to exceed the 7.7 fl. oz./A (0.24 lb. Al/A) per year rate limit. Post-harvest applications must be made in a way that minimizes contact with any standing asparagus spears or ferns and maximizes contact with the weeds and/or soil, e.g., by using a directed or semi-directed type application, or crop injury may occur. With post-harvest applications, the use of an adjuvant will increase the risk of crop injury.

If weeds are emerged at the time of the **Lektor** application, the addition of a crop oil concentrate (COC) type adjuvant at the rate of 1% v/v **or** a non-ionic surfactant (NIS) at the rate of 0.25% v/v is recommended. In addition to COC or NIS, a spray grade UAN (e.g., 28-0-0) at the rate of 2.5% v/v **or** ammonium sulfate (AMS) at the rate of 8.5 lbs./100 gallons of spray solution may be added for improved burndown of emerged weeds. If weeds have not yet emerged, no adjuvant is recommended.

#### **Asparagus Restrictions:**

- **DO NOT** apply more than 7.7 fl. oz./A (0.24 lb. Al/A) of **Lektor** per year.
- **DO NOT** make more than two applications of **Lektor** per year.
- DO NOT apply more than 7.7 fl. oz./A (0.24 lb. AI/A) of Lektor in a single application.
- If two applications are made, they must be made no closer than 14 days apart.
- PHI = 0 days

# CROP USE DIRECTIONS - BLUEGRASS, RYEGRASS (ANNUAL AND PERENNIAL), AND TALL FESCUE GROWN FOR SEED

**Lektor** can be applied to bluegrass, annual ryegrass, perennial ryegrass, or tall fescue which is grown for seed. **Lektor** can be applied as a pre-emergence application to bare soil (new seeding) or as a post-emergence application to an emerged grass crop.

#### **Pre-Emergence Applications**

Apply **Lektor** as a broadcast, surface spray at a rate of 6.0 fl. oz./A (0.19 lb. Al/A) to a newly seeded crop. The **Lektor** application must be made prior to crop and weed emergence. Rainfall or irrigation as the newly seeded grass crop emerges from the soil may increase the risk of injury from **Lektor**. Grass crop injury symptoms include temporary bleaching of newly emerged leaves, or in extreme conditions, stunting. For a list of pre-emergence weeds controlled or partially controlled see Table 2. In addition to the weeds listed in Table 2, **Lektor** applied pre-emergence will control mannagrass.

#### **Post-Emergence Application**

Apply **Lektor** as a broadcast post-emergence spray at a rate of 3.0-6.0 fl. oz./A (0.094-0.19 lb. Al/A) to emerged bluegrass, perennial ryegrass or tall fescue grown for seed. Use the 3.0 fl. oz./A (0.094 lb. Al/A) rate for post-emergence control or partial control of the weeds listed in Table 1. In addition to the weeds listed in Table 2, **Lektor** applied post-emergence will control mannagrass (up to 3 tillers).

Use the 6.0 fl. oz./A (0.19 lb. Al/A) rate for post-emergence weed control plus extended residual weed control (see Table 2). The addition of a crop oil concentrate type adjuvant at 1% v/v or a non-ionic surfactant (NIS) type adjuvant at a rate of 0.25% v/v is recommended. Post-emergence applications of **Lektor** may result in temporary bleaching of the grass crop.

In addition to COC or NIS, a spray grade UAN (e.g., 28-0-0) at the rate of 2.5% v/v or ammonium sulfate (AMS) at the rate of 8.5 lbs./100 gallons of spray solution may also be added for improved control of emerged weeds. The addition of UAN or AMS will improve consistency of post-emergence weed control but will also increase the risk of grass crop injury, especially at **Lektor** rates greater than 3.0 fl. oz./A (0.094 lb. AI/A). If grass crop injury is a concern, **DO NOT** add UAN or AMS to the spray solution.

Tank mixing other pesticides with **Lektor** post-emergence may increase the risk of crop injury. Avoid adding pesticides with emulsifiable concentrate (EC) type formulations to **Lektor** for applications made post-emergence to the crop.

#### **Restrictions:**

- DO NOT harvest the grass crop for seed or straw within 60 days following the application of Lektor.
- **DO NOT** graze or feed forage from treated areas within 14 days following harvest of seed or straw and at least 74 days after application of **Lektor**.
- **DO NOT** make more than two applications of **Lektor** per year.
- DO NOT apply more than 6 fl. oz./A (0.19 lb. AI/A) in a single application
- **DO NOT** apply more than 9 fl. oz./A (0.28 lb. Al/A) of Lektor per year.
- Applications of Lektor to grasses grown for seed species not listed on this label may result in severe injury.
- If two applications are made, they must be made no closer than 14 days apart.

#### CROP USE DIRECTIONS – BUSH AND CANEBERRIES (CROP GROUP 13-07A AND 13-07B)

**Note:** Not all cultivars and types of berries that are included within the Environmental Protection Agencies definition of bush and caneberries (Crop Subgroups 13-07A and 13-07B) have been tested and shown to have adequate crop safety to mesotrione. Those that have been tested, and are believed to be reasonably fit, are listed below along with use directions for that crop. If **Lektor** is used on bush or caneberries not listed below, severe crop injury may occur.

**Lektor** may be applied as a pre-bloom post-directed spray in high bush blueberry, lingonberry, red currant, black currant, black raspberry, red raspberry, and blackberry. For a list of weeds controlled see Tables 1 and 2. **Lektor** may be applied in bush or caneberries at a rate up to 6 fl. oz./A (0.19 lb. Al/A). If a split application weed control program is desired, 3 fl. oz./A (0.094 lb. Al/A) followed by 3 fl. oz./A (0.094 lb. Al/A) may be used, but no more than two applications per crop per year are allowed and not more than 6 fl. oz./A (0.19 lb. Al/A) in total per year. If two applications are made, they must be made no closer than 14 days apart. The use of a crop oil concentrate (COC) type adjuvant at the rate of 1% v/v is recommended, but avoid using COC adjuvants that are injurious to bush or caneberry leaves. **DO NOT** apply **Lektor** to bush or caneberries after the onset of the bloom stage or illegal residues may occur.

This application may be a broadcast application. Up to 6 fl. oz./A (0.19 lb. AI/A) of **Lektor** may be applied in a single application, or 3 fl. oz./A (0.094 lb. AI/A) followed by 3 fl. oz./A (0.094 lb. AI/A) if used in a split application

program. No more than two applications per year are allowed and not more than 6 fl. oz./A (0.19 lb. Al/A) in total per year. If two applications are made, they must be made no closer than 14 days apart. The use of a crop oil concentrate (COC) type adjuvant at 1% v/v is recommended. Applications of **Lektor** during dry weather conditions and/or temperatures above 85° can cause injury to low bush blueberries. Applications of **Lektor** can cause yellowing or necrosis of leaves and under severe conditions, leaf drop may occur especially on "Sourtop" variety blueberries.

#### **Bush & Caneberry Restrictions:**

- **DO NOT** make more than two applications of **Lektor** per year.
- **DO NOT** apply **Lektor** more than 6.0 fl. oz./A (0.19 lb. Al/A) per year.
- In low bush blueberries, **Lektor** may only be applied in the non-bearing year.
- **DO NOT** apply more than 6.0 fl.oz/A (0.19 lb. Al/A) of **Lektor** in a single application.
- If two applications are made, they must be made no closer than 14 days apart.
- PHI = 0 days

#### **CROP USE DIRECTIONS - CRANBERRY**

Apply **Lektor** to bearing or non-bearing cranberry beds to control or suppress the weeds listed in Tables 1 and 2, and:

- bog St. John's wort (*Hypericum boreala*)
- rushes (Juncus canadensis, J. effuses, J. bufonlus, J. tenuis)
- sedges spp. (*Carex* spp.)
- silverleaf (*Potentilla pacifica*)
- yellow loosestrife (Lysimachia terrestris)

#### **Bearing/Non-Bearing Application Rates:**

- **DO NOT** apply more than 8 fl. oz./A (0.25 lb. AI/A) per single application.
- **DO NOT** apply more than 16 fl. oz./A (0.5 lb. Al/A) in total per year.
- DO NOT make more than two applications of Lektor per year.
- If two applications are made, **DO NOT** make them closer than 14 days apart. Use 1% v/v of a crop oil concentrate (COC) or 0.25% v/v non-ionic surfactant (NIS).
- **DO NOT** use COC adjuvants that are known to injure cranberry leaves.
- **Non-bearing Cranberries:** Apply after the bud break stage no less than 45 days before flooding in fall or winter.
- Bearing Cranberries: Apply after the bud break stage no less than 45 days before flooding or harvest.

Lektor can be applied through irrigation systems (chemigation) including center pivot or solid set.

#### **Sprinkler Irrigation Application – Cranberries Only**

Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for optimal control. Maintain good agitation in the pesticide supply tank prior to and during the entire application process. Inject the specified rate of **Lektor** into the irrigation system with a metering device designed to introduce a constant flow and will distribute the product to target areas in 0.1-0.2 acre-inch of water. Use the least amount of water with this rate range required for proper distribution and coverage.

After application is complete, flush the entire irrigation and injection systems with clean water before stopping the system. If application is being made during a normal irrigation set of a stationary sprinkler, the specified rate of **Lektor** for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide optimal coverage and distribution.

#### CHEMIGATION USE PRECAUTIONS – SPRINKLER IRRIGATION APPLICATION

Apply this product through center pivot or solid set sprinkler irrigation systems only. **DO NOT apply this product through any other type of irrigation system.** 

Non-uniform distribution of treated water can cause crop injury, product ineffectiveness, and/or illegal pesticide residues in the crop. Contact State Extension Service Specialists, equipment manufacturers or other experts if you have questions about calibrating equipment.

**DO NOT** connect an irrigation system or greenhouse system used for pesticide application to any public water system. A public water system is any system used for provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible personnel shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back-flow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when pressure decreases to the point where pesticide distribution is adversely affected. Systems must also use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and are capable of being fitted with a system interlock.

Any alternatives to the above required safety devices must conform to the list of EPA approved alternative devices.

#### CHEMIGATION USE RESTRICTIONS – SPRINKLER IRRIGATION APPLICATION

- Apply this product through center pivot or solid set sprinkler irrigation systems only.
- DO NOT apply this product through any other type of irrigation system.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
- DO NOT apply directly to water or areas where surface water is present outside the bog system.
- DO NOT contaminate water when disposing of equipment washwater or rinsate.
- **DO NOT** apply within 10 feet of surface water outside the bog system.
- **DO NOT** spray to runoff.

#### **CROP USE DIRECTIONS – FLAX**

**Lektor** may be applied pre-emergence in flax, i.e., after planting but before crop emergence, at a rate up to 6 fl. oz./A (0.19 lb. Al/A). For a list of weeds controlled see Tables 1 and 2. **DO NOT** apply more than one application, and not more than 6 fl. oz./A (0.19 lb. Al/A), per crop or per year in flax. If weeds are emerged at the time of application, the use of a crop oil concentrate (COC) type adjuvant at the rate of 1% v/v is recommended. In addition, a spray grade UAN (e.g., 28-0-0) at the rate of 2.5% (v/v) or AMS at the rate of 8.5 lbs./100 gals. of spray solution may be added to improve the burndown of existing weeds. Applications of **Lektor** to emerged flax can result in severe crop injury.

#### Flax Restrictions:

- **DO NOT** make more than one application of **Lektor** per year.
- **DO NOT** apply **Lektor** more than 6.0 fl. oz./A (0.19 lb. AI/A) per year.
- DO NOT apply Lektor more than 6.0 fl. oz/A (0.19 lb. Al/A) in a single application.
- PHI = 0 days

#### **CROP USE DIRECTIONS - OATS**

Lektor can be applied pre-emergence or post-emergence (but not both) for weed control in oats.

For pre-emergence control or partial control of the weeds listed in Table 2, apply **Lektor** broadcast at a rate of 6.0 fl. oz./A (0.19 lb. AI/A) prior to oat emergence. For best pre-emergence weed control, the **Lektor** application must be made prior to weed emergence.

For post-emergence (after oat emergence) control or partial control of the weeds listed in Table 1, apply **Lektor** at a rate of 3.0 fl. oz./A (0.094 lb. AI/A). For best results, **Lektor** must be applied to emerged weeds that are less than 5" tall. Post-emergence applications of **Lektor** may result in temporary injury of the oat crop. Injury symptoms may include leaf bleaching, leaf burn and in extreme conditions, stunting.

If emerged weeds are present at the time of the **Lektor** application, the addition of a crop oil concentrate (COC) type adjuvant at a rate of 1% v/v **or** a non-ionic surfactant (NIS) type adjuvant at a rate of 0.25% v/v is recommended. In addition to COC or NIS, a spray grade UAN (e.g., 28-0-0) at the rate of 2.5% v/v **or** ammonium sulfate (AMS) at the rate of 8.5 lbs./100 gallons of spray solution may be added for improved weed control. If emerged weeds are not present at the time of the **Lektor** application, no additives are recommended. If oat injury is a concern, eliminating the use of UAN or AMS will reduce the risk for post-emergence crop injury. Additionally, the use of NIS instead of COC will also reduce the oat injury risk. However, weed control is also reduced if UAN or AMS is eliminated and when switching from COC to NIS.

Tank mixing other pesticides with **Lektor** post-emergence may increase the risk of injury. Avoid adding pesticides with emulsifiable concentrate (EC) type formulations to **Lektor** for applications made post-emergence to the crop.

#### **Oat Restrictions:**

- **DO NOT** graze or feed forage from treated areas within 30 days following an application of **Lektor**.
- **DO NOT** harvest oats within 50 days following the application of **Lektor**.
- **DO NOT** make more than one application of **Lektor** per year.
- **DO NOT** apply **Lektor** pre-emergence (prior to oat emergence) at more than 6.0 fl. oz./A (0.19 lb. AI/A) per year.
- DO NOT apply Lektor post-emergence at more than 3.0 fl. oz./A (0.094 lb. AI/A) per year.
- If the oat crop treated with **Lektor** is lost or destroyed, oats may be replanted immediately. If **Lektor** was applied to the lost oat crop, no additional **Lektor** can be applied to the replanted oat crop.

#### **CROP USE DIRECTIONS - OKRA**

**Lektor** can be applied as a row-middle or a hooded post-direct treatment (but not both) for weed control in okra.

#### **Pre-Emergence Row-Middle Applications**

Apply **Lektor** at a rate of 6.0 fl. oz./A (0.19 lb. Al/A) as a banded application to the row middles prior to weed emergence. For this banded application, leave one foot of untreated area over the okra row or 6" to each side of the planted row. For banded applications, the application must be made to account for band width, i.e., to deliver 6.0 fl. oz. per treated acre (0.19 lb. Al/A). **DO NOT** apply **Lektor** directly over the planted okra row or severe crop injury may occur. Injury risk is greatest on coarse textured soils (sand, sandy loam or loamy sand). **Post-Emergence Hooded Applications** 

Apply **Lektor** at a rate of 3.0 fl. oz./A (0.094 lb. AI/A) as a post-emergence directed application using a hooded sprayer for control or partial control of the weeds listed in Table 1. Okra must be at least 3" tall at the time of this application. It is recommended that a non-ionic surfactant (NIS) type adjuvant at a rate of 0.25% v/v be added to the spray solution. For post-emergence hooded applications, the spray equipment must be set up to minimize the amount of **Lektor** that contacts the okra foliage or crop injury will occur. For best post-emergence results, **Lektor** must be applied to actively growing weeds.

#### **Okra Restrictions:**

- **DO NOT** harvest okra within 28 days following the application of **Lektor**.
- **DO NOT** make more than one application of **Lektor** per year.
- **DO NOT** apply **Lektor** as a row-middle application at more than 6.0 fl. oz. per treated acre (0.19 lb. Al/A) per year.
- DO NOT apply Lektor as a post-directed application at more than 3.0 fl. oz. per acre (0.094 lb. AI/A) per year.
- DO NOT apply Lektor as a broadcast pre-emergence or broadcast post-emergence application to okra or severe injury will occur.
- If the okra crop treated with **Lektor** is lost or destroyed, okra can be replanted only in the soil band that was not treated with **Lektor**.

#### **CROP USE DIRECTIONS - PEARL MILLET**

**Lektor** may be applied pre-emergence in pearl millet, i.e., after planting but before crop emergence, at a rate up to 6 fl. oz./A (0.19 lb. Al/A). For a list of weeds controlled see Table 2. **DO NOT** apply more than one application, and not more than 6 fl. oz./A (0.19 lb. Al/A) per crop or per year in pearl millet. If weeds are emerged at the time of application, the use of a crop oil concentrate (COC) type adjuvant at the rate of 1% v/v is recommended. In addition, a spray grade UAN (e.g., 28-0-0) at the rate of 2.5% (v/v) or AMS at the rate of 8.5 lbs./100 gals. of spray solution may be added to improve the burndown of existing weeds. Applications of **Lektor** to emerged pearl millet can result in severe crop injury.

#### **Pearl Millet Restrictions:**

- **DO NOT** make more than one application of **Lektor** per year.
- **DO NOT** apply **Lektor** more than 6.0 fl. oz./A (0.19 lb. Al/A) per year.
- **DO NOT** apply more than 6.0 fl.oz/A (0.19 lb. Al/A) of **Lektor** in a single application.
- PHI = 0 days

#### **CROP USE DIRECTIONS - RHUBARB**

**Lektor** can be applied prior to crop emergence for weed control in established rhubarb.

Apply **Lektor** at a rate of 6.0 fl. oz./A (0.19 lb. Al/A) to dormant (prior to any spring green-up) rhubarb for control or partial control of the weeds listed in Table 2. If weeds are emerged at the time of application, it is recommended that a crop oil concentrate (COC) type adjuvant at 1% v/v **or** a non-ionic surfactant (NIS) type adjuvant at a rate of 0.25% v/v be added to the spray solution. Applications of **Lektor** to rhubarb that is not dormant may result in a temporary bleaching symptomology. Rainfall or irrigation after the **Lektor** application may increase the risk of injury to emerging rhubarb.

#### **Rhubarb Restrictions:**

- **DO NOT** harvest rhubarb within 21 days following the application of **Lektor**.
- **DO NOT** make more than one application of **Lektor** per year.
- **DO NOT** apply **Lektor** at more than 6.0 fl. oz./A (0.19 lb. AI/A) per year.

#### **CROP USE DIRECTIONS – SORGHUM (GRAIN and SWEET)**

#### **Pre-Emergence Application Directions**

Make pre-emergence application of **Lektor** or pre-plant non-incorporated applications up to 21 days before planting sorghum for control or partial control of the weeds listed in Table 2.

Apply 6.0-6.4 fl. oz./A (0.19-0.20 lb. Al/A) broadcast non-incorporated application prior to sorghum emergence. Making the application less than 7 days before planting will increase the risk of plant injury, especially if rainfall or irrigation occurs after the application. Injury symptoms include temporary bleaching of newly emerged leaves. Making application of this product 8-21 days prior to planting will decrease risk of crop

injury.

If **Lektor** is applied prior to planting, minimize disturbance of soil treated with herbicide during the planting process in order to reduce the potential for weed emergence.

If emerged weeds are present at the time of pre-emergence application, use 0.25% v/v of a non-ionic surfactant (NIS) adjuvant or 1% v/v of crop oil concentrate (COC) and add it to the spray solution. A spray-grade UAN applied at a rate of 2.5% v/v or 8.5 lbs./100 gallons of spray solution of ammonium sulfate (AMS) can be added to the spray solution in addition to the COC or NIS.

#### **Sorghum Restrictions:**

- **DO NOT** apply more than 6.4 fl. oz./A (0.20 lb. Al/A) per year.
- **DO NOT** apply more than 3.0 fl. oz./A (0.094 lb. AI/A) post directed.
- **DO NOT** make more than one post-directed application of **Lektor** per year.
- DO NOT make more than one pre-emergence or pre-plant incorporated application of Lektor per year.
- **DO NOT** apply to emerged sorghum foliage, including broadcast over-the-top application, as severe crop injury can occur.
- DO NOT use Lektor in the production of forage sorghum, sudangrass, sorghum- sudangrass hybrids, or dual purpose sorghum.
- **DO NOT** apply to sorghum that is grown on coarse textured soils (e.g., sandy loam, loamy sand, sand).
- DO NOT apply after the sorghum seedhead emerges.
- **DO NOT** harvest sorghum for forage for 30 days following application.
- **DO NOT** harvest for grain or stover for 60 days following application.
- Texas Restriction: DO NOT apply to sorghum grown south of Interstate 20 (I-20) or east of Highway 277.

#### **Post-Emergence Application Directions**

Apply **Lektor** post-directed to grain sorghum to control and/or partially control weeds listed in Table 1. Apply to actively growing weeds for optimal control.

Apply 3.0 fl. oz./A (0.094 lb. Al/A) post-directed application when sorghum is at least 8" tall. Make the application by directing the spray between crop rows, and toward the base of the plant. Direct application of **Lektor** onto foliage can result in crop injury including temporary bleaching. If leaves do bleach, newly emerged leaves following application will not be affected.

Use 0.25% v/v of a non-ionic surfactant (NIS) adjuvant or 1% v/v of crop oil concentrate (COC) and add it to the spray solution. A spray-grade UAN applied at a rate of 2.5% v/v or 8.5 lbs./100 gallons of spray solution of ammonium sulfate (AMS) can be added to the spray solution in addition to the COC or NIS.

**Lektor** can be tank-mixed with herbicides registered for use on sorghum to improve weed control. These tank-mixtures can also include a herbicide with a different mode of action to help control or manage the development of resistant weed biotypes.

#### **CROP USE DIRECTIONS – SUGARCANE**

Apply **Lektor** by ground for pre-emergence, post-emergence over-the-top or post-emergence direct weed control in sugarcane.

Apply **Lektor** aerially for pre-emergence and post-emergence weed control in the states of: **Florida, Louisiana, and Texas.** 

#### **Pre-Emergence Applications**

Apply 6.0-7.7 fl. oz./A (0.19-0.24 lb. Al/A) of **Lektor** to control weeds listed in Table 2. Make application after the planting of plant-cane or after harvest of ratoon-cane. If weeds are emerged at the time of application, add a

crop oil concentrate (COC) type adjuvant at 1% v/v OR a non-ionic surfactant (NIS) type adjuvant at 0.25% v/v to the spray solution. In addition to the COC or NIS, a spray grade UAN at a rate of 2.5% v/v OR ammonium sulfate (AMS) at a rate of 8.5 lbs./100 gals. of spray solution can be added to the spray solution. Tank mix with a product containing the active ingredient, Atrazine or ametryn, with **Lektor** to improve weed control. Refer to the tank mix partner label for specific rates and use directions.

#### **Post-Emergence Applications**

Apply 3.0 fl. oz./A (0.094 lb. Al/A) of **Lektor** to control weeds listed in Table 1. Apply as a post-over-the-top or as a post-directed spray to the base of the sugarcane. If a pre-emergence application was made earlier in the season, only one single post-emergence application can be made. If no pre-emergence application was made earlier in the season, then both a post-over-the-top and a post-directed spray application can be made. For optimum weed control, apply to actively growing weeds.

Add either a crop oil concentrate (COC) adjuvant at 1% v/v OR a non-ionic surfactant (NIS) adjuvant to the spray solution. In addition to the COC or NIS, use a spray grade UAN (e.g., 28-0-0) at 2.5% v/v OR ammonium sulfate (AMS) at 8.5 lbs./100 gals. of spray solution to improve weed control.

For additional post-emergence weed control, tank mix **Lektor** with atrazine, asulam and/or pyridinesulfonamide. Refer to the tank mix product label for specific rate and use directions.

#### **Sugarcane Restrictions:**

- DO NOT apply more than 7.7 fl. oz./A (0.24 lb. Al/A) in a pre-emergence application.
- DO NOT apply more than 3.0 fl. oz./A (0.094 lb. Al/A) in a post-emergence application.
- **DO NOT** make more than 2 applications per year. If a pre-emergence application is made, only one post-emergence application can be made.
- DO NOT make two applications less than 14 days apart.
- **DO NOT** apply more than 10.7 fl. oz./A (0.33 lb. Al/A) per year.
- DO NOT harvest sugarcane within 114 days following a post-over-the-top treatment (114-day PHI).
- **DO NOT** harvest sugarcane within 100 days following a post-directed application (100-day PHI).

#### **TURFGRASS**

**Lektor** is applied pre- and post-emergence to provide selective contact and residual control of turfgrass weeds. If applied pre-emergence, it is absorbed when emerging from the soil. Pre-emergence activity and control may be reduced under dry conditions. Activate **Lektor** with 0.15 inches of irrigation if rain hasn't fallen within 10 days of application. Post-emergent control is obtained by absorption into the soil and contact with foliage. Growth ceases post-application, weeds turn white from chlorophyll loss, and will die within three weeks. Make a repeat application after 2-3 weeks to improve post-emergence weed control. Add a non-ionic surfactant when making post- emergence applications.

Turfgrass color can temporarily become white during treatment. Whitening typically occurs 5-7 days post-application and lasts for several weeks. A second application to the same site will cause less whitening of plant tissue.

**Lektor** controls weeds prior to and during seeding of certain turfgrasses during tur renovation (see **New Seedings**). If making pre-emergence application to established turf, tank mix **Lektor** with other pre-emergence herbicides containing an active ingredient such as prodiamine for longer residual and broad spectrum control.

#### **APPROVED USE SITES**

**Lektor** can be applied to commercial and residential turfgrasses. Non-crop area use sites include golf courses, sod farms, athletic fields, parks, residential and commercial properties, cemeteries, airports, and lawns.

#### **Turfgrass Use Precautions:**

Residential Lawns: **DO NOT** make broadcast applications for pre- and post-emergent weed control unless the home lawn is being reseeded and/or renovated as whitening of some turfgrasses may occur.

Apply **Lektor** at reduced rates of 4 fl. oz./A (0.13 lb. AI/A) or less if tank mixing with products containing the active ingredients atrazine, bentazon, or simazine. Before tank mixing **Lektor** with other herbicides, conduct a compatibility, safety, and efficacy test before treating larger areas. See tank mix partner labels for directions and precautions. The most restrictive directions apply.

Thoroughly clean application equipment after use to avoid injury to sensitive plants.

To avoid injury to sensitive species, keep traffic out of treated areas until sprays have dried; irrigate soil lightly to move **Lektor** from turf foliage before resuming normal irrigation.

#### **Turfgrass Use Restrictions:**

- **DO NOT** overspray or allow spray to drift to ornamentals or flower beds and gardens. Roses and daylilies are particularly sensitive to **Lektor**.
- **DO NOT** apply more than 16 oz. (0.5 lb. Al/A) per acre per year.
- **DO NOT** apply more than 8 oz./A (0.25 lb. Ai/A) in a single application.
- **DO NOT** make more than 2 applications per year.
- **DO NOT** plant any crop other than turfgrass for 18 months post-application of this product to avoid turfgrass injury.
- DO NOT apply organophosphate or carbamate insecticides within 7 days of applying Lektor.
- **DO NOT** apply **Lektor** through any type of irrigation system.
- DO NOT make aerial applications.
- DO NOT use treated clippings to mulch trees or vegetable/flower gardens.
- **DO NOT** apply this product on Bentgrass, *Poa annua*, kikuyugrass, zoysiagrass, seashore paspalum, and bermudagrass if plant injury is unacceptable. Maintain a 5-foot buffer between treated areas and bentgrass or *Poa annua* greens.
- **DO NOT** apply over the top of exposed roots of trees and ornamentals.
- **DO NOT** use on golf course putting greens; maintain a minimum of a 5-foot buffer between putting greens and treated areas.
- For spot applications, DO NOT apply more than 0.184 fl. oz. (0.0057 lb. Al/A) per 1,000 sq. ft. in a single application.
- For spot applications, **DO NOT** apply more than 0.367 fl. oz. (0.0115 lb. Al/A) per 1,000 sq. ft. of **Lektor** per year.

**Turfgrass Species** 

Tuliglass Species		
Species	Application Rate	
	Fl. Oz. per Acre (lb. Al/A)	
Kentucky bluegrass (Poa pertensis)		
Centipedegrass (Eremochloa ophiuroides)		
Buffalograss (Buchloe dactyloides)	5-8	
Tall fescue (Festuca arundinacea)	(0.16-0.25)	
Perennial ryegrass* (Lolium perenne)		
Fine fescue* (creeping red, chewings and hard) Festuca spp.	5	
	(0.16)	
St. Augustinegrass* (grown for sod) (Stenotaphrum secundatum)	4	
	(0.13)	

<sup>\*</sup>See additional rate instructions below.

#### APPLICATION INSTRUCTIONS

#### **Pre-Emergence Applications:**

Apply 4-8 fl. oz. (0.13-0.25 lb. Al/A) of **Lektor** per acre in at least 30 gallons of water per acre before seeds germinate and as close to seed germination as possible. Combine this product with another pre-emergence herbicide containing an active ingredient such as prodiamine for extended control of crabgrass and foxtail.

#### **Pre-Emergence Application Precautions:**

**Lektor** is more effective on established turf when applied post-emergence unless it is combined with another soil active herbicide.

#### **Pre-Emergence Application Restrictions:**

**DO NOT** exceed 5 fl. oz. per acre (0.16 lb. AI/A) per application to perennial ryegrass, fine fescues, or mixed stands that consist of >50% perennial ryegrass and/or fine fescue.

St. Augustinegrass sod: **DO NOT** exceed 4 fl. oz. per acre (0.13 lb. Al/A).

#### **Application to New Seedings/New Lawns**

Apply 5-8 fl. oz. (0.16-0.25 lb. AI/A) **Lektor** per acre in at least 30 gallons of water per acre before seeding or after seeding of tolerance turfgrass species listed below, except fine fescue, as application to fine fescue can reduce grass density.

**Lektor** can be effectively used on grass seed blends that contain <20% by weight hard/fine fescue. For optimal control, apply at grass seeding or as close to seeding as possible.

#### **New Seedings/New Lawns Restrictions:**

**DO NOT** spray on newly germinated turfgrass. Delay treatment until grass has been mowed 2-4 times and/or 4 weeks after emergence (whichever is longer).

#### **Post-Emergence Application Instructions:**

Apply 4-8 fl. oz. (0.13-0.25 lb. AI/A) of **Lektor** per acre in at least 30 gallons of water per acre with a NIS surfactant. Make a repeat application 2-3 weeks later for optimal weed control. Apply to young, actively growing weeds.

#### **Post-Emergence Application Precautions:**

Moisture stress and application to mature weeds can reduce herbicide efficacy.

#### Bentgrass (Agrostis spp.)/Nimbleweed (Muhlenbergia schreberi) Control:

Apply 5 fl. oz. (0.16 lb. AI/A) **Lektor** per acre in at least 30 gallons of water per acre combined with a NIS surfactant at 2-3 week intervals for a maximum of 3 applications. For optimal Bentgrass control, apply in late summer/early fall just prior to new growth.

#### St. Augustinegrass (Sod uses only) and Centipedegrass Treatment:

Apply to established turf ONLY.

#### St. Augustinegrass (Sod uses only) and Centipedegrass Restrictions:

**DO NOT** exceed 4 fl. oz. (0.13 lb. Al/A) **Lektor** if tank mixing with Atrazine or Simazine.

**DO NOT** exceed 0.5 lb. atrazine or simazine active ingredient. See atrazine/simazine labels for precautions and restrictions.

#### **Dormant Bermudagrass Application only:**

Apply 5 fl. oz. per acre (0.16 lb. Al/A) of **Lektor** to control winter weeds listed in the **Weeds Controlled** table below. Make a repeat application 2-3 weeks later. Application of **Lektor** to semi-dormant turf will cause bermudagrass whitening.

#### **Spot Applications of this Product**

Spray Mix	<b>Application Rate</b>	Rate of this product	Rate of NIS adjuvant
2 gallons	1 gallon per 1,000 sq. ft.	1 teaspoon	3 teaspoons

#### WEEDS CONTROLLED USING PRE-EMERGENCE APPLICATION

Apply **Lektor** with a grass pre-emergence herbicide containing an active ingredient such as prodiamine, except when used to control weeds in new seedings. **Lektor** will control the following weeds using pre-emergence application:

Common Name	Scientific Name	
Barnyardgrass	Echinochloa crusgalli	
Bentgrass (Creeping)	Agrostis stolonifera	
Bluegrass (Annual)*	Poa annua*	
Buckhorn Plantain	Plantago Ianceloata	
Carpetweed	Mollugo verticillata	
Chickweed (Common)	Stellaria media	
Chickweed (Mouseear)	Cerastium vulgatum	
Clover (Large Hop)	Trifolium aureum	
Clover (White)	Trifolium repens	
Crabgrass (Large)	Digitaria sanguinalis	
Crabgrass (Smooth)	Digitaria ischaemum	
Crabgrass (Southern)	Digitaria ciliaris	
Foxtail (Yellow)	Setaria glauca	
Galinsoga	Galinsoga ciliate	
Lambsquarters	Chenopodium album	
Pigweed (Redroot)	Amaranthus retroflexus	
Pigweed (Smooth)	Amaranthus hybridus	
Purslane (Common)	Portulaca oleracea	
Shepherd's purse	Capsella bursa-pastoris	
Smartweed (Pale)	Polygonum lapathifolium	
Smartweed (Pennsylvania)	Polygonum pensylvanicum	
Speedwell (Persian)	Veronica persica	
Speedwell (Purslane)	Veronica peregrine	
Wild Carrot	Daucus carota	

<sup>\*</sup>Suppression only

#### WEEDS CONTROLLED USING POST-EMERGENCE APPLICATION

Make a second application of **Lektor** 2-3 weeks after initial treatment. For optimal control add a NIS-type surfactant and apply to young, actively growing weeds. **Lektor** will control the following weeds using post-emergence application:

Common Name	Scientific Name
Barnyardgrass	Echinochloa crusgalli
Bentgrass (Creeping)	Agrostis stolonifera
Buckhorn Plantain	Plantago lanceloata
Carpetweed	Mollugo verticillata
Chickweed (Common)	Stellaria media
Chickweed (Mouseear)	Cerastium vulgatum
Clover (Large Hop)	Trifolium aureum
Clover (White)	Trifolium repens
Crabgrass (Large)*	Digitaria sanguinalis*
Crabgrass (Smooth)*	Digitaria ischaemum*
Crabgrass (Southern)*	Digitaria ciliaris*

Curly dock	Rumex crispus
Dandelion (Catsear)	Hypochoeris radicata
Dandelion (Common)	Taraxacum officinale
Florida Betony	Stachys floridana
Florida Pusley	Richardia scabra
Foxtail (Yellow)	Setaria glauca
Galinsoga	Galinsoga ciliate
Goosgrass*	Eleusine indica*
Ground Ivy	Glechoma hederacea
Healall	Prunella vulgaris
Henbit	Lamium amplexicaule
Lambsquarters (Common)	Chenopodium album
Lawn Burweed	Soliva sessilis
Lovegrass (Tufted)	Eragrostis pectinacea
Marestail	Conyza Canadensis
Nimblewill	Muhlenbergia schreberi
Nutsedge (Yellow)	Cyperus esculentus
Oxalis	Oxalis stricta
Pigweed (Redroot)	Amaranthus retroflexus
Pigweed (Smooth)	Amaranthus hybridus
Purslane (Common)	Portulaca oleracea
Shepherd's purse	Capsella bursa-pastoris
Smartweed (Pale)	Polygonum lapathifolium
Smartweed (Pennsylvania)	Polygonum pensylvanicum
Sowthistle	Sonchus oleraceus
Swinecress	Coronopus didymus
Thistle (Canada)	Cirsium arvense
Verbena	Verbena hastate
Wild Carrot	Daucus carota
Wild Violet	Viola pratincola
Windmillgrass	Chloris verticillata

<sup>\*</sup>For optimal control, apply to less than 4 tiller crabgrass and goosegrass.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep container tightly closed when not in use. Keep away from heat and flame. **DO NOT** store near seed, fertilizers, or foodstuffs. Can be stored at temperatures as low as minus 20°F. Keep away from heat and flame.

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

Container Handling [Less Than or Equal to 5 Gallons]: Non-refillable plastic container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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#### **LIMIT OF WARRANTY AND LIABILITY**

To the extent consistent with applicable law, Rainbow Supply Chain USA, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESSED WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

To the extent consistent with applicable law, buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop, or treated vegetation.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified in this labeling, or in separate supplemental labeling for this product.

To the extent consistent with applicable law, Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

 ${\it Clearfield} \ {\it is a trademark of BASF Corporation}.$ 

Roundup Ready® is a trademark of Monsanto Company.

### [EPA APPROVAL DATE]

Group Herbicide

# Lektor

### {ABN:}[Mestrong, Prism Mesotrione 4, Pismatic Mesotrione 4]

Controls annual broadleaf weeds in Corn (field, seed, yellow pop, sweet), and other listed crops. Provides selective and residual control of weeds in Ornamental Turfgrasses

Active Ingredient:	By Weight
Mesotrione: 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexaned	40.0%
Other Ingredients:	<u>60.0%</u>
TOTAL:	100.0%

Contains 4 lbs. Mesotrione per gallon.

# **KEEP OUT OF REACH OF CHILDREN CAUTION**

	FIRST AID	
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes.	
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>	
	Call a poison control center or doctor for treatment advice.	
IF ON SKIN	Take off contaminated clothing.	
	Rinse skin immediately with plenty of water for 15-20 minutes.	
	Call a poison control center or doctor for treatment advice.	
IF INHALED	Move person to fresh air.	
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> </ul>	
	Call a poison control center or doctor for further treatment advice.	
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	DO NOT induce vomiting unless told to do so by the poison control center or doctor.	
	DO NOT give anything to an unconscious person.	
Have the product container	or label with you when calling a poison control center or doctor, or going for	
treatment.		
	HOT LINE NUMBER	
For 24-Hour Medical Emerge	ency Assistance (Human or Animal) call: 1-800-222-1222. For Chemical Emergency Assistance (Spill, Leak, Fire, or	
A		

Accident) call CHEMTREC: 1-800-424-9300.

#### **PRECAUTIONARY STATEMENTS**

Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing.

#### **Environmental Hazards**

DO NOT apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment wash water or rinsate.

#### **Physical and Chemical Hazards**

**DO NOT** use or store near heat or open flame.

#### STORAGE AND DISPOSAL

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

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[See] [inside] [label] [booklet] [side] [panel] [for] [First Aid] [,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal] [instructions][.]

EPA Reg. No.: 103810-XX	[Lot][Batch][No.][:]]
EPA Est. No.:	
Net Contents:	
Manufactured (Ryl/For)	

Manufactured [By][For]:

Rainbow Supply Chain USA, LLC 919 North Market Street, Suite 950 Wilmington, DE 19801