

100-8-27

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

FEB 19 2004

Greg Watson, Ph.D.
NATA Herbicides Team Leader
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419

Dear Dr. Watson:

Subject: Bicep Lite II Magnum® Herbicide
EPA Registration No. 100-827 ✓
Your Letter Dated July 31, 2003,
Request To Amend Labeling of Bicep Lite II MAGNUM
Herbicide To Reflect Reassessment of Metolachlor
Tolerances Under FQPA, the TRED Process

The proposed amendments to the labeling of Bicep Lite II MAGNUM Herbicide as describe in your letter have been reviewed and found acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, provided that you:

- 1. Amend the proposed labeling to comply with the acceptance comments in this Agency's letter dated August 25, 2003.
2. Revise the statement on page 8 that reads: "Bicep Lite II MAGNUM should be used only in accordance.....separately published supplemental ....."; to read: "Bicep Lite II MAGNUM should be used only in accordance .....EPA Accepted supplemental .....".
3. On page 10, delete the 3rd paragraph that reads: "Do not apply metolachlor containing products, such as Inter 8E II or Inter Plus II, Stalwart™ C, or Trizmet in tank mixture or as a sequential application with Bicep Lite II MAGNUM".
4. On page 35, revise the "Bicep Lite II Magnum Combinations - Field Corn Only" section by revising the following sentences in the 3rd paragraph of that section:

"Where your acceptance of an adverse crop response risk is low ....." to read: "Where your tolerance of an adverse crop response risk is high ....."

Clarify the sentence that read: "Where a target weed is listed as controlled on only one product label, do not apply a rate of that product below what is recommended for that weed on the individual product label, or unacceptable control may result." Revise to read: "Where a target weed is listed as controlled on only one product label, do not apply at a lower given rate, or unacceptable control may result".

The heading that reads in the 4<sup>th</sup> paragraph must be identified as a head to a section that follows. Under line or set it off from the previous information.

- 5. Clarify the following sentences on page 36:

"Bicep Lite II MAGNUM can be use in combinations with Balance PRO at rates up to 1.5 qts....." to read: "Bicep Lite II MAGNUM at rates up to 1.5 qts can be use in combinations with Balance PRO on coarse textured soils if the organic matter content is 3% or greater.

In the second paragraph of this section correct the construction of the second sentence as instructed above. The phrase "at rates up to 1.5 qts./A on medium textured soils" should follow the name of this product, Bicep Lite II MAGNUM. This construction also should be followed in the 3<sup>rd</sup> paragraph, last sentence.

- 6. Submit one (1) copy of the final printed label prior to your shipment of this pesticide product under the enclosed revised label.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6 (e). Your release for shipment under this labeling constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

Sincerely yours,

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Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

*Alan*

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Bulk and 2½ Gal. Booklets

**RESTRICTED USE PESTICIDE  
(GROUND AND SURFACE WATER CONCERNS)**

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

Bicep Lite II MAGNUM®

Herbicide

For weed control in corn and grain or forage sorghum

Active Ingredients:

Atrazine (CAS No. 1912-24-9) .....	28.1%
Atrazine related compounds.....	0.6%
<u>S-metolachlor (CAS No. 87392-12-9).....</u>	<u>35.8%</u>
<u>Other Ingredients:</u>	<u>35.5%</u>
Total:	100.0%

Bicep Lite II MAGNUM contains 2.67 lbs. atrazine + relateds per gallon and 3.33 lbs. of S-metolachlor active ingredient per gallon.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-827

EPA Est. 100-LA-001 [2.5, 100, 120, 220 gallons]

2.5 gallons  
Net Contents

\_\_\_\_\_ gallons (Bulk, 100, 120, 220 gallons)  
Net Contents

SCP 827A-L1x xxxx (Bulk, 100, 120, 220 gals.)

SCP 827A-L3x xxxx (2½ gal.)

ACCEPTED  
with COMMENTS  
EPA Letter Dated  
**FEB 19 2004**

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

100-827

<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"><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>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><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>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><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>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b> For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b>	

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## **Precautionary Statements**

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### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. This product may cause skin sensitization reactions in some people.

### **Personal Protective Equipment**

#### **Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber  $\geq 14$  mils, polyvinyl chloride (PVC),  $\geq 14$  mils, or viton  $\geq 14$  mils
- Shoes plus socks

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

### **Engineering Control Statements**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)]. When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### **Environmental Hazards**

Do not apply directly to water, 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. This pesticide contains atrazine, which has been shown to be toxic to aquatic invertebrates. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

### **Ground Water Advisory**

Bicep Lite II MAGNUM contains both the active ingredients atrazine and S-metolachlor.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

### **Surface Water Advisory**

S-metolachlor has the potential to contaminate surface water through ground spray drift. Under some conditions, S-metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not

separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment.

This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

States may have in effect additional requirements regarding well-head setbacks and operational area containment.

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66-ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-ft. buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

### **Tile-Terraced Fields Containing Standpipes**

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.

2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire tile-outletted terraced field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.



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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitations of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

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## DIRECTIONS FOR USE

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

Bicep Lite II MAGNUM should be used only in accordance with recommendations on this label or in separately published supplemental labeling recommendations for this product.

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

### AGRICULTURAL USE REQUIREMENTS

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

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.** Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Chemical-resistant gloves, such as barrier laminate, butyl rubber  $\geq$  14 mils, polyvinyl chloride (PVC),  $\geq$  14 mils, or viton  $\geq$  14 mils
- Shoes plus socks

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Note: Not for sale, use, or distribution in Nassau County or Suffolk County, New York.**

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## **STORAGE AND DISPOSAL**

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### **Storage**

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

### **Pesticide Disposal**

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

### **Container Disposal (Bulk 100, 120, 220 gals.)**

Refer to label on container for disposal instructions.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

### **Container Disposal (2½ gal.)**

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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## GENERAL INFORMATION

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Bicep Lite II MAGNUM is a selective herbicide recommended before planting, before or after emergence (see directions) for control of most annual grasses and broadleaf weeds in corn. Bicep Lite II MAGNUM can also be used before crop emergence for control of most annual grasses and broadleaf weeds in grain or forage sorghum, provided the sorghum seed has been properly treated by the seed company with Concep®. This product may be tank mixed with Balance® PRO, Banvel®, Dual MAGNUM formulations, Lorox® or equivalent, or Princep® 4L (Princep® Caliber 90®) for weed control in conventional tillage corn. This product may also be tank mixed with other herbicides specified on this label for weed control in conventional, minimum-till, and no-till corn, grain sorghum, or forage sorghum.

Do not apply metolachlor containing products, such as Inter 8E II, Inter Plus II, Stalwart C, or Trizmet in tank mixture or as a sequential application with Bicep Lite II MAGNUM.

**Note:** Tank mixtures are permitted only in those states where the tank mix partner is registered. Refer to and follow the label of each product used for precautionary statements, directions for use, geographic and other restrictions.

Following many years of continuous use of atrazine (one of the ingredients in Bicep Lite II MAGNUM) and products chemically related to atrazine, biotypes of some of the weeds listed on this label which are controlled by the atrazine component have been reported to develop resistance to this and chemically related herbicides. Where this is known or suspected, and weeds controlled by this product are expected to be present along with resistant biotypes, we recommend the use of Bicep Lite II MAGNUM in combination or in sequence with registered herbicides which do not contain triazines. Consult with your State Agricultural Extension Service for specific recommendations.

*Precautions: (1) If sorghum seed is not properly pretreated with Concep, Bicep Lite II MAGNUM will severely injure the crop. (2) Injury may occur to sorghum following the use of Bicep Lite II MAGNUM under abnormally high soil moisture conditions during early development of the crop.*

Bicep Lite II MAGNUM alone or in tank mixture with Balance PRO, Banvel, Dual MAGNUM®, Dual II MAGNUM®, or Princep may be applied early preplant, preplant incorporated, preplant surface, or preemergence on corn in water or fluid fertilizer. Apply postemergence treatments of Bicep Lite II MAGNUM to corn, alone or in combination, using water only as the carrier. Bicep Lite II MAGNUM may be applied in tank mix combination with Gramoxone®MAX, Landmaster® BW, Touchdown®, or Roundup® with or without the above herbicides early preplant, preplant surface, or preemergence to corn. Bicep Lite II MAGNUM alone may also be applied on sorghum early preplant, preplant incorporated, preplant surface, or preemergence in water or in fluid fertilizer.

Bicep Lite II MAGNUM may be applied in water by aircraft. Applications in fluid fertilizer should be only by ground equipment.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

Do not apply this product through any type of irrigation system.

Do not apply under conditions which favor runoff or wind erosion of soil containing this product to nontarget areas.

To prevent off-site movement due to runoff or wind erosion:

1. Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
2. Do not apply to impervious substrates, such as paved or highly compacted surfaces.
3. Do not use tailwater from the first flood or furrow irrigation of treated fields to treat nontarget crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control.

Dry weather following preemergence application of Bicep Lite II MAGNUM or a tank mixture may reduce effectiveness. Cultivate if weeds develop in conventional tillage corn or sorghum.

Observe all precautions and limitations on the label of each product used in tank mixtures.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with other materials, or crop damage or sprayer clogging of the application device may occur.

### **Mixing Instructions**

Thoroughly recirculate containers and bulk tanks before using. Bicep Lite II MAGNUM is a liquid that may be mixed with water or fluid fertilizer and applied as a spray. Bicep Lite II MAGNUM may also be sprayed onto dry bulk granular fertilizer and applied with the granular fertilizer.

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### Dry Bulk Granular Fertilizers

Many dry bulk granular fertilizers may be impregnated or coated with Bicep Lite II MAGNUM and used to control weeds in corn or Concep-treated sorghum.

When applying Bicep Lite II MAGNUM with dry bulk granular fertilizers, follow all directions for use and precautions on the Bicep Lite II MAGNUM label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Bicep Lite II MAGNUM onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® FG or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate the amount of Bicep Lite II MAGNUM to be used by the following:

$$\frac{2000}{\text{lbs. of fertilizer per acre}} \times \text{qts. of Bicep Lite II MAGNUM per acre} = \text{qts. of Bicep Lite II MAGNUM per ton of fertilizer}$$

### Pneumatic (Compressed Air) Application

High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixtures to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix Bicep Lite II MAGNUM with Exxon Aromatic 200 at a rate of 2.0-2.5 pts./gal. of Bicep Lite II MAGNUM. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

**Notes:** (1) Mixtures of Bicep Lite II MAGNUM and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications. (2) When impregnating Bicep Lite II MAGNUM in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or another drying agent of 6/30 particle size is recommended. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

*Precautions: To avoid potential for explosion, (1) Do not impregnate Bicep Lite II MAGNUM on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not combine Bicep Lite II MAGNUM with a single superphosphate (0-20-0) or treble superphosphate (0-46-0). (3) Do not use Bicep Lite II MAGNUM on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.*

### **Application**

Apply 200-700 lbs. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury or injury to subsequent rotational crops. Nonuniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

*Precautions: (1) To help avoid rotational crop injury, make applications as early as possible, since Bicep Lite II MAGNUM impregnated onto dry bulk granular fertilizers can be expected to last longer in the soil than when Bicep Lite II MAGNUM is applied as a spray in water or fluid fertilizer. (2) To avoid potential crop injury, do not use the herbicide/fertilizer mixture on crops where planting beds are to be formed.*

### **Application in Water or Fluid Fertilizers**

**Bicep Lite II MAGNUM Alone:** Fill the spray tank 1/2-3/4 full with water or fluid fertilizer, add the proper amount of Bicep Lite II MAGNUM, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform suspension.

**Tank Mixtures:** Fill the spray tank 1/2-3/4 full with water or fluid fertilizer, add the proper amount of Bicep Lite II MAGNUM, then add Balance PRO, Banvel, Lorox or equivalent, or Princep; next add Dual MAGNUM, or Dual II MAGNUM; then add GramoxoneMAX, Landmaster BW, Touchdown, or Roundup (glyphosate products),

depending on the tank mix combination desired; and finally, add the rest of the water or fluid fertilizer. Only water may be used with Bicep Lite II MAGNUM + Liberty® Herbicide when applied postemergence to corn designated as tolerant to Liberty (glufosinate); and with Roundup Ultra™ when applied postemergence to corn designated as tolerant to Roundup (glyphosate). Provide sufficient agitation during mixing and application to maintain a uniform suspension.

### Compatibility Test

A jar test is recommended before tank mixing to ensure compatibility of Bicep Lite II MAGNUM with other pesticides. The following test assumes a spray volume of 25 gals/A. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with suspensions of fertilizer and pesticides.

### Test Procedure

1. Add 1.0 pt. of carrier (fertilizer or water) to each of 2 one qt. jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (1/4 tsp. is equivalent to 2.0 pts./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition, or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.



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- 5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

**Soil Texture Information**

Within rate ranges in all tables on this label, use the lower rate on soil relatively coarse-textured or low in organic matter; use the higher rate on soil relatively fine-textured or high in organic matter and where weed pressure, particularly from grasses, is expected to be especially heavy.

**Recommendations are based upon soil textures, which are defined as follows:**

<b>COARSE</b>	Sand, loamy sand, sandy loam
<b>MEDIUM</b>	Loam, silt loam, silt
<b>FINE</b>	Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay

**Application Procedures**

**Ground Application:** Use sprayers that provide accurate and uniform application. Screens in nozzles and in suction and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to: (1) maintain 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Unless otherwise specified, use a minimum of 10 gals. of spray mixture per acre. Rinse sprayer thoroughly with clean water immediately after use.

For band applications, calculate amount to be applied per acre as follows:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

**Low Carrier Application (Broadcast Ground Application Only):** Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle™, John Deere 4700 Sprayer, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35-40 psi at the nozzles, and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5.0 gals. of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Maintain uniform travel speed while spraying. Rinse sprayer thoroughly with clean water immediately after each use.

**Note:** Low pressure nozzles are recommended to reduce drift and increase application accuracy. When using automatic rate controlling devices, care should be taken to spray

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the material within the rated working pressure and flow ranges of the nozzle selected. Nozzle screens should be used when recommended by the manufacturer. All nozzles should be placed on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

**Aerial Application (for Bicep Lite II MAGNUM alone):** Use aerial application only where broadcast applications are specified. Apply a minimum of 1.0 gal. of water for each 1.0 gal. of this product applied per acre, but for rates below 1.0 gal./A, use in sufficient water to equal 2.0 gals./A of total spray. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Bicep Lite II MAGNUM by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

### **Aerial Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** section.

### **Aerial Drift Reduction Advisory Information**

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## Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity, and Temperature Inversions**).

## Controlling Droplet Size

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

## Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

## Application Height

Applications should not be made at a height greater than 10 ft. above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

## Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate

for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

### **Wind**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

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**BICEP LITE II MAGNUM APPLIED ALONE**

**Weeds Controlled** — When applied early preplant, preplant surface-applied, preplant incorporated, or preemergence, Bicep Lite II MAGNUM will control or suppress the following weeds:

**Weeds Controlled**

**Weeds Partially Controlled\*\***

barnyardgrass  
(watergrass)  
browntop panicum  
crabgrass  
crowfootgrass  
fall panicum  
foxtail millet  
giant foxtail  
goosegrass  
green foxtail  
prairie cupgrass  
red rice  
signalgrass (Brachiaria)\*  
southwestern cupgrass  
witchgrass

yellow foxtail  
yellow nutsedge\*  
carpetweed  
chickweed  
common purslane  
common ragweed  
Florida pusley  
galinsoga  
henbit  
lambsquarters  
mustards  
nightshades  
pigweed  
smartweed  
waterhemp

cocklebur  
giant ragweed  
jimsonweed  
morningglory  
sandbur  
seedling johnsongrass  
shattercane  
sicklepod  
volunteer sorghum  
velvetleaf  
woolly cupgrass

\*Control of these weeds can be erratic, especially under dry weather conditions. Control escaped weeds with cultivation or application of an EPA-registered postemergence herbicide. On fine-textured soils, only partial control can be expected.

\*\*Control may be improved by following these suggested procedures:

- In corn, apply up to the maximum single application rate in Table 1 for your given soil texture and rate recommendation based on your soil conservation practices.
- **Thoroughly till moist soil** to destroy germinating and emerged weeds. If Bicep Lite II MAGNUM is to be applied preplant incorporated, this tillage may be used to incorporate Bicep Lite II MAGNUM if uniform 2-inch incorporation is achieved as recommended under **Application Procedures**.
- Plant crop into moist soil **immediately after tillage**. If Bicep Lite II MAGNUM is to be used preemergence, apply at planting or immediately after planting.

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- If available, **sprinkler irrigate** within 2 days after application. Apply 1/2-1 inch of water. Use lower water volume (1/2 inch) on coarse-textured soils and higher volume (1 inch) on fine-textured soils.
- If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.
- For large-seeded broadleaf species, or those which are listed as partially controlled, an application of a postemergence herbicide should be made, if needed, following an application of Bicep Lite II MAGNUM.

### **Application Timings\***

\*Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher setbacks) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

**Note:** For purposes of calculating total atrazine active ingredient applied, Bicep Lite II MAGNUM contains 2.67 lbs. a.i. atrazine + relateds per gal. (0.6675 lb. a.i./qt.). If Bicep Lite II MAGNUM is used in tank mix or sequentially with any other atrazine-containing product, do not exceed the following atrazine limits per year.

**FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE**

- **On Highly Erodible Land (as defined by SCS)**

If conservation tillage is practiced, leaving at least 30% of the soil covering with plant residues at planting, apply a maximum of 2 lbs. of atrazine/A as a broadcast spray.

If soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 lbs. of atrazine/A may be applied.

- **On Land Not Highly Erodible**

Apply a maximum of 2 lbs. of atrazine/A as a broadcast spray.

**FOR POSTEMERGENCE APPLICATION TO FIELD CORN**

If no atrazine was applied prior to field corn emergence, a maximum of 2 lbs. a.i./A may be applied postemergence. If a postemergence treatment is required following an earlier herbicide application containing atrazine, the total atrazine applied may not exceed 2.5 lbs. a.i. per acre per calendar year.

**Corn (All Types)**

**Early Preplant:** For coarse-textured soils, apply 1.5 qts. of Bicep Lite II MAGNUM no earlier than 2 weeks before planting. For medium- and fine-textured soils, Bicep Lite II MAGNUM may be applied as a split treatment, by applying 2/3 the recommended rate 30-45 days before planting, followed by the remaining 1/3 rate at planting. See Table 1. Applications made less than 30 days before planting may be either split or single applications. For all soils, Bicep Lite II MAGNUM must be tank mixed with a contact herbicide (e.g., GramoxoneMAX, Touchdown, or Roundup) if weeds are present at the time of treatment. If large-seeded dicots are present in the field, an application of an appropriate postemergence herbicide may be necessary after corn emergence. Observe the directions for use, precautions, and restrictions of all herbicides used in tank mixtures or as sequential to Bicep Lite II MAGNUM. If the postemergence product contains atrazine, do not exceed the maximum use rates for that soil or location.

On medium- and fine-textured soils following final seedbed preparation in the Blacklands and Gulf Coast areas of TX, an early preplant application of Bicep Lite II MAGNUM at 1.1-1.4 qts./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting, and avoid moving the soil during the planting operation. A follow-up application Dual MAGNUM or Dual II MAGNUM may

be needed in fields with a history of heavy grass pressure. Apply after planting, but before corn and grass weeds emerge.

**Notes:** (1) If a follow-up application of Dual MAGNUM or Dual II MAGNUM is needed, do not exceed a total of 1.6 lbs. a.i. of S-metolachlor per acre, including the preplant Bicep Lite II MAGNUM application on medium- or fine-textured soils. On fine-textured soils with more than 3% organic matter, do not exceed 1.9 lbs. a.i. of S-metolachlor.

[To determine the total lbs. a.i. of S-metolachlor per acre, use the following 2-step method:

- A. Determine the lbs. a.i. of S-metolachlor applied as Bicep Lite II MAGNUM (1.0 qt. = 0.835 lb. a.i. of S-metolachlor); then,
- B. If Dual MAGNUM or Dual II MAGNUM is to be used, add the lbs. a.i. to be applied in these products to the lbs. in Step A above.

(2) To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Table 1: Bicep Lite II MAGNUM – Early Preplant – Corn**

Soil Texture	Single Application	Split Application*	
		30-45 DBP**	At Planting
<b>COARSE</b> Sand, loamy sand, sandy loam	1.5 qts./A	DO NOT APPLY	
<b>MEDIUM</b> Loam, silt loam, silt	1.5 qts./A to 1.9 qts./A	1.0 qt./A to 1.25 qts./A	0.5 qt./A to 0.66 qt./A
<b>FINE</b> Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.9 qts./A to 2.2 qts./A	1.25 qts./A to 1.6 qts./A	0.66 qt./A to 0.8 qt./A

\*Split applications can be made less than 30 days before planting if desired.

\*\*DBP — Days before planting



**Preplant Surface, Preplant Incorporated, or Preemergence:** Apply Bicep Lite II MAGNUM preplant surface, preplant incorporated, or preemergence, using the appropriate rates from Table 2.

**Preplant Surface:** Apply uniformly to the soil surface within 14 days before planting. Where applications are made to coarse soils more than 7 days before planting, use the rates in Table 1.

**Preplant Incorporated:** Apply to the soil and incorporate into the top 2 inches of the soil within 14 days before planting, using a finishing disk, finishing harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use the preplant incorporated method if furrow irrigation is used or when a period of dry weather after application is expected. If crop is to be planted on beds, apply and incorporate after bed formation.

**Preemergence:** Apply to the soil surface at planting (behind the planter) or after planting, but before weeds or crop emerge.

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**Table 2: Bicep Lite II MAGNUM – Preplant Surface, Preplant Incorporated, or Preemergence – Corn**

Soil Texture	Broadcast Rate Per Acre	
	Less Than 3% Organic Matter	3% Organic Matter or Greater
<b>COARSE</b> Sand, loamy sand, sandy loam	0.9 qt.	1.1-1.5 qts.
<b>MEDIUM</b> Loam, silt loam, silt	1.1-1.5 qts.	1.5 qts.
<b>FINE</b> Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.5 qts.	1.5-2.2 qts.*
Muck or peat soils (more than 20% organic matter)	DO NOT USE	

\*For yellow nutsedge control on fine-textured soils above 3% organic matter: Apply 2.2 qts. of Bicep Lite II MAGNUM per acre.

**BICEP LITE II MAGNUM FOUNDATION PROGRAMS FOR PLANNED TWO-PASS WEED CONTROL SYSTEMS IN ROUNDUP READY AND GLYPHOSATE TOLERANT CORN**

Bicep Lite II MAGNUM may be applied preplant incorporated or preemergence in Roundup Ready or glyphosate tolerant corn at rates down to 0.9 qts./A on all soils when followed by a planned postemergence application of an approved glyphosate based product – examples include Touchdown and Roundup UltraMax. Follow all other directions for use, precautions and restrictions listed for Bicep Lite II MAGNUM on this label. The glyphosate product must be registered for postemergence applications in Roundup Ready or glyphosate tolerant corn and be applied according to the weed and

crop timings, methods, precautions and restrictions listed on the glyphosate containing product label. When used in this way, Bicep Lite II MAGNUM will provide reduced competition of the weeds listed as controlled under the preplant and preemergence sections of this label for a period of 30 or more days, thus improving the timing flexibility and effectiveness of the glyphosate based product application.

**Notes:** (1) In the event of escape of annual weeds following an early preplant, preplant surface, preplant incorporated, or preemergence treatment of Bicep Lite II MAGNUM applied alone or in combination, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex®, Beacon®, Banvel, Basagran®, Brominal®, Buctril®, Marksman®, or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the labeled rate for corn on a given soil texture. (2) Brominal or Buctril may be applied postemergence alone or in tank mix combination with AAtrex. Do not exceed 1.2 lbs. a.i./A of AAtrex in tank mix combination with Brominal or Buctril postemergence. Refer to the AAtrex, Brominal, and Buctril labels for specific rates and precautions. (3) If AAtrex or another product containing atrazine is used postemergence following application of Bicep Lite II MAGNUM, do not exceed a total of 2.5 lbs. a.i./A of atrazine per year.

**Postemergence Broadcast — Corn**

**Weeds Controlled**

common ragweed  
flixweed  
jimsonweed  
kochia  
lambsquarters  
morningglory  
mustards  
pigweed  
sunflower  
waterhemp

**Weeds Partially Controlled**

cocklebur  
giant foxtail  
green foxtail  
purslane  
prickly sida  
smartweed  
velvetleaf  
yellow foxtail  
yellow nutsedge

Apply Bicep Lite II MAGNUM early postemergence, using the appropriate rate from Table 3 before weeds pass the 2-leaf stage of development and before corn exceeds 5 inches in height. Application to larger weeds may result in unsatisfactory control. A tank mix or sequential application with a postemergence herbicide may be needed for adequate control of large-seeded broadleaf weeds as well as other broadleaves not listed above. Occasional corn leaf burn may result, but this should not affect later growth or yield.

**Note:** To avoid possible illegal residues, (1) do not graze or feed forage from treated areas for 30 days following application and (2) do not harvest sweet corn ears from treated areas for 30 days following application.

**Table 3: Postemergence Broadcast – Corn**

Soil Texture	Broadcast Rate Per Acre
<b>COARSE</b> Sand, loamy sand, sandy loam	1.1 qts.
<b>MEDIUM</b> Loam, silt loam, silt	1.5 qts.
<b>FINE</b> Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.5-1.9 qts.*

\*For better control of yellow nutsedge and broadleaf weeds on fine-textured soils above 3% organic matter, apply 1.9 qts. of Bicep Lite II MAGNUM.

**Notes:** (1) If another atrazine-containing product has been applied early preplant, preplant surface, preplant incorporated, or preemergence, do not exceed a total of 2.5 lbs. of atrazine per acre. (2) Do not exceed a total of 3.75 lbs. of the active ingredient in the Dual MAGNUM products or its component in the Bicep MAGNUM products per acre of a corn crop, or illegal residues may result.

**Rotational Crops:** Follow the crop rotation recommendation instructions in the **Bicep Lite II MAGNUM Alone** section of this label.

**Postemergence-Directed – Corn**

Bicep Lite II MAGNUM may be applied as a postemergence-directed treatment to corn to extend control of weeds listed in the **Early Preplant, Preplant Surface-Applied, Preplant Incorporated, Preemergence, or Postemergence Broadcast** sections of the corn label.

Apply Bicep Lite II MAGNUM to weed-free soil at the appropriate rate in Table 4, following use of an early preplant, preplant surface, preplant incorporated, or preemergence herbicide, or following a lay-by cultivation. If weeds have emerged, apply before grass and broadleaf weeds exceed the 2-leaf stage. Additional control of emerged broadleaf weeds can be obtained by tank mixing with an appropriate postemergence herbicide. Application to weeds larger than the 2-leaf stage can result in unsatisfactory control. Apply to corn not exceeding 12 inches in height. Minimize contact with corn leaves.

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**Note:** To avoid possible illegal residues, (1) do not graze or feed forage from treated areas for 30 days following application and (2) do not harvest sweet corn ears from treated areas for 30 days following application.

**Table 4: Postemergence-Directed – Corn**

Soil Texture	Broadcast Rate Per Acre
<b>COARSE</b> Sand, loamy sand, sandy loam	0.9 qts.
<b>MEDIUM</b> Loam, silt loam, silt	1.5 qts.
<b>FINE</b> Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.5-1.9 qts.*

**Note:** If Bicep Lite II MAGNUM, Dual II MAGNUM, or other products containing S-Metolachlor and/or atrazine have been applied, do not exceed a total of 2.5 lbs./A of atrazine active ingredient or 3.75 lbs./A of the active ingredient in Dual II MAGNUM.

**Sorghum (Sorghum-Seed Treated with Concep)**

**Early Preplant (Sorghum-Seed Treated with Concep):** For minimum-tillage and no-tillage systems only, Bicep Lite II MAGNUM may be applied up to 45 days before planting grain sorghum in IA, IL, eastern KS, MO, NE, and SD, using the rates from Table 5. Use only split applications for treatments made 30-45 days before planting with 2/3 the recommended rate applied initially and the remaining 1/3 at planting. Applications made less than 30 days prior to planting may be made as either a split or single application.

If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone MAX, Landmaster BW, or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. Under dry conditions, irrigation after application is recommended to move Bicep Lite II MAGNUM into the soil.

**Note:** To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished. Do not use on coarse soils. Do not use on medium soils with less than 1.0% organic matter.

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On medium- and fine-textured soils following final seedbed preparation in the Blacklands and Gulf Coast areas of TX, an early preplant application of Bicep Lite II MAGNUM at 1.1-1.4 qts./A may be made 30-45 days before planting. Grass suppression of 2-3 weeks after planting can be expected as a result of this application. Do not incorporate or disturb the soil before planting and avoid moving the soil during the planting operation. A follow-up application of Dual MAGNUM, or Dual II MAGNUM may be needed in fields with a history of heavy grass pressure. Apply after planting, but before sorghum and grass weeds emerge.

**Notes:** (1) Do not use on soils with a pH greater than 8.0 if grain sorghum is to be planted. (2) If a follow-up application of Dual MAGNUM, or Dual II MAGNUM is needed, do not exceed a total of 1.4 lbs. a.i. of S-metolachlor per acre, including the early preplant Bicep Lite II MAGNUM application on medium-textured soils. On fine-textured soils, do not exceed 1.6 lbs. a.i. of S-metolachlor per acre.

[To determine the total lbs. a.i. of S-metolachlor per acre, use the following 2-step method:

- A. Determine the lbs. a.i. of S-metolachlor applied as Bicep Lite II MAGNUM (1.0 qt. = 0.835 lb. a.i. of S-metolachlor); then,
- B. If Dual MAGNUM or Dual II MAGNUM is used, add the lbs. a.i. to be applied in these products to the lbs. in Step A above.

**Table 5: Bicep Lite II MAGNUM – Early Preplant – Grain or Forage Sorghum (Seed treated with Concep)**

Soil Texture	Organic Matter	Single Application	Split Application*	
			30-45 DBP**	At Planting
<b>COARSE</b> Sand, loamy sand, sandy loam	any level	DO NOT USE	DO NOT USE	
<b>MEDIUM</b> Loam, silt loam, silt	less than 1.0%	DO NOT USE	DO NOT USE	
	more than 1.0%	1.5 qts./A to 1.7 qts./A	1.0 qt./A to 1.1 qts./A	0.5 qt./A to 0.6 qt./A
<b>FINE</b> Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	less than 1.5%	1.5 qts./A to 1.7 qts./A	1.0 qt./A to 1.1 qts./A	0.5 qt./A to 0.6 qt./A
	more than 1.5%	1.7 qts./A to 1.9 qts./A	1.1 qts./A to 1.25 qts./A	0.6 qt./A to 0.66 qt./A

\*Split applications can be made less than 30 days before planting if desired.

\*\*DBP – Days before planting

**Preplant Surface, Preplant Incorporated, or Preemergence (Sorghum-Seed Treated with Concep):** Apply Bicep Lite II MAGNUM preplant surface, preplant incorporated, or preemergence, using the appropriate rates from Table 6.

**Preplant Surface:** Apply uniformly to the soil surface within 14 days before planting.

**Preplant Incorporated:** Apply to the soil and incorporate into the top 2 inches of the soil within 14 days before planting, using a finishing disk, finishing harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use the preplant incorporated method if furrow irrigation is used or when a period of dry weather after application is expected. If crop is to be planted on beds, apply and incorporate after bed formation.

**Preemergence:** Apply to the soil surface at planting (behind the planter) or after planting, but before weeds or crop emerge.

**Table 6: Preplant Surface, Preplant Incorporated, or Preemergence – Grain or Forage Sorghum\* (Seed treated with Concep)**

Soil Texture	Organic Matter	Broadcast Rate Per Acre
<b>COARSE</b> Sand, loamy sand, sandy loam	any level	DO NOT USE
<b>MEDIUM and FINE</b> Loam, silt loam, silt, sandy clay loam, silty clay loam,	less than 1.0%	DO NOT USE
clay loam, sandy clay, silty clay, clay	more than 1.0%	1.1-1.5 qts.

\*Do not use in NM or TX, except in the TX Panhandle, Gulf Coast, and Blacklands areas. Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

*Precautions: To avoid possible crop injury, (1) Do not apply Bicep Lite II MAGNUM on highly alkaline soils (pH greater than 8.0) or on eroded areas where calcareous subsoils are exposed. (2) Do not apply Bicep Lite II MAGNUM when sorghum is planted in deep furrows because heavy rains following application can cause excessive concentrations of herbicide in the furrow. (3) Do not apply to sorghum grown under dry mulch tillage. (4) Injury may occur if both Bicep Lite II MAGNUM applied early preplant, preplant surface, preplant incorporated, or preemergence and an at-planting systemic insecticide applied in-furrow are used. (5) In addition, sorghum growing under stress caused by minor element deficiency may be injured by Bicep Lite II MAGNUM.*

**Rotational Crops**

Do not rotate to food or feed crops other than those listed below:

(1) If treated crop is lost due to poor germination, hail, flood, insects, etc., corn may be replanted immediately or sorghum may be replanted immediately, provided the seed has been properly treated with Concep. Do not make a second broadcast application. If the original application was banded and the second crop is planted in the untreated row middles, a second banded treatment may be applied. (2) Corn, sorghum,



soybeans, cotton, or peanuts may be planted the spring following treatment. Do not graze or feed forage or fodder from cotton to livestock, or illegal residues may result. (3) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer. (4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans for 18 months following application if the rate applied to corn or sorghum was more than 2.0 lbs. a.i. of atrazine or equivalent band application rate, or soybean injury may occur. (5) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur. (6) In the High Plains and Intermountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum, or a crop of untreated corn or sorghum is to precede other rotational crops. (7) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes the year following application, or injury may occur.

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### **BICEP LITE II MAGNUM COMBINATIONS – CORN**

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**Always follow label instructions for tank mix products when mixing with Bicep Lite II MAGNUM.**

#### **Tank Mixture with Dual MAGNUM, Dual II MAGNUM, Princep– Conventional Tillage**

**Dual MAGNUM Products:** Add up to 0.33 pt. of Dual MAGNUM or Dual II MAGNUM per acre to the rate of Bicep Lite II MAGNUM recommended in Table 1 when heavy infestations of yellow nutsedge, sandbur, or seedling johnsongrass are expected.

**Princep (4L or Caliber 90):** Add up to 1.0 qt. of Princep 4L (1.1 lbs. of Princep Caliber 90) per acre to the rate of Bicep Lite II MAGNUM recommended in Table 1 in the northeastern U.S. where heavy infestations of crabgrass or fall panicum are expected.

#### **Tank Mixture of Bicep Lite II MAGNUM With Dual MAGNUM, Dual II MAGNUM, Princep, GramoxoneMAX, Landmaster BW, Touchdown, or Roundup for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides GramoxoneMAX, Landmaster BW, Touchdown, or Roundup should be tank mixed with Bicep Lite II MAGNUM alone or with Bicep Lite II MAGNUM + Dual MAGNUM, Dual II MAGNUM, or Princep. When used as directed, the Gramoxone MAX portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Landmaster BW, Touchdown, and Roundup combinations will control emerged annual and perennial weeds when applied as directed on its label. The Bicep Lite II MAGNUM portion of the tank mixture provides preemergence control of the weeds listed on this label in the **Bicep Lite II MAGNUM Alone** section for corn. The addition of Dual MAGNUM, Dual II MAGNUM, or Princep offers the advantage indicated for each under **Conventional Tillage**.

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**Application:** Apply before, during, or after planting, but before corn emerges, at the appropriate rate in Table 7. 0.33 pt. of Dual MAGNUM or Dual II MAGNUM, or 1.0 qt. of Princep 4L (1.1 lbs. of Princep Caliber 90) per acre may be added to the rate of Bicep Lite II MAGNUM recommended in Table 7. Add GramoxoneMAX, Landmaster BW, Touchdown, or Roundup at labeled rates.

Apply in 20-60 gals. of water per acre with conventional spray equipment.

**Tank Mixture of Bicep Lite II MAGNUM with 2,4-D or 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, Bicep Lite II MAGNUM may be applied in combination with 2,4-D or 2,4-D + Banvel.

Where heavy crop residues exist, add an appropriately labeled 2,4-D amine or low volatile ester to the spray tank last and apply in a minimum of 25 gals. of carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore, are recommended instead of water. Add X-77® surfactant at 1.0-2.0 qts./100 gals. of diluted spray, or another surfactant cleared for use on growing crops at its recommended rate. Apply before weeds exceed 3 inches in height. If alfalfa is present, add Banvel to the spray mixture at 0.33-0.5 pt./A and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Gramoxone MAX at the rate of 2.5 pts./A in place of or in addition to 2,4-D, as indicated above. Do not apply Gramoxone MAX in suspension-type liquid fertilizer. Observe all directions for use, precautions, and limitations on the respective product labels when applying these products in tank mix combination.

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**Table 7: Bicep Lite II MAGNUM for Minimum-Tillage or No-Tillage Corn**

<b>Soil Texture</b>	<b>Broadcast Rate Per Acre</b>
<b>COARSE</b> Sand, loamy sand, sandy loam	1.1 qts.
<b>MEDIUM</b> Loam, silt loam, silt	1.5 qts.
<b>FINE</b> Sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	1.5-2.2 qts.*
Muck or peat soils	DO NOT USE

\*For yellow nutsedge control on fine-textured soils above 3% organic matter, apply 2.2 qts. of Bicep Lite II MAGNUM per acre.

**Tank Mixture with Linuron for Control of Lambsquarters and Pigweed**

For prolonged control of lambsquarters and pigweed in DE, MD, NJ, NY, PA, VA, and WV, Bicep Lite II MAGNUM may be applied preemergence in combination with linuron. Apply Bicep Lite II MAGNUM according to the rates in Table 1 and linuron according to the following rates.

<b>Soil Texture</b>	<b>Broadcast Rate Per Acre</b>
Sandy loam (1-3% organic matter)	0.67 lb. Lorox*
Sandy loam (3-6% organic matter)	1.0 lb. Lorox*
Medium- and fine-textured soils (1-6% organic matter)	1.0 lb. Lorox*

\*When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals 1.0 lb. of Lorox DF.

Follow instructions and precautions on the Bicep Lite II MAGNUM and Lorox labels when tank mixing these products.

**Rotational Crops:** Follow the crop rotation instructions in the **Bicep Lite II MAGNUM Alone** section for corn.

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**BICEP LITE II MAGNUM COMBINATIONS – FIELD CORN ONLY**

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**Balance PRO:** Bicep Lite II MAGNUM and Balance PRO have a complementary crop response and weed control profile, which allows various tank mix rate combinations to be considered. The addition of Balance PRO will improve the control of certain problem weeds, including Texas panicum, woolly cupgrass, and wild proso millet. Bicep Lite II MAGNUM improves both the duration and spectrum of annual grass and small seeded broadleaf weed control, in particular foxtails (yellow foxtail), witchgrass, and yellow nutsedge.

To reduce the risk of an adverse crop response, the Balance PRO label does not allow applications to coarse textured soils with less than 1.5 % organic matter and warns about applications to all soils with less than 1.5% organic matter or with pH greater than 7.5 – as well as applications made to areas in fields with clay knolls, eroded hill sides, and exposed subsoil. Bicep Lite II MAGNUM has no adverse crop response warnings or use restrictions.

Listed below are compensating rate options for combinations of Bicep Lite II MAGNUM and Balance PRO, i.e. higher rates of Bicep Lite II MAGNUM are combined with lower rates of Balance PRO, and visa versa. Select a rate option for Bicep Lite II MAGNUM plus Balance PRO by weighing the intensity of problem weed pressure (population presence and density) and your acceptance for risk of an adverse crop response. For example, where Texas panicum, woolly cupgrass, or wild proso millet are a primary target weed, use a tank mix combination with a higher Balance PRO rate for the given soil type. Where your acceptance of an adverse crop response risk is low and/or a more general weed spectrum is targeted (especially yellow foxtail, witchgrass or yellow nutsedge), use a tank mix combination with a higher Bicep Lite II MAGNUM rate for the given soil type. Where a target weed is listed as controlled on both product labels, a tank mix combination option including intermediate rates of both products may be used. Where a target weed is listed as controlled on only one product label, do not apply a rate of that product below what is recommended for that weed on the individual product label, or unacceptable control may result. Follow all other directions for use, rate limitations, precautions and restrictions on both the Bicep Lite II MAGNUM and Balance PRO product labels.

Bicep Lite II MAGNUM plus Balance PRO tank mix rate options when applied preplant (incorporated or surface applied) up to 7 day before planting or preemergence in field corn.

For coarse textured soils, where 1.5 or 1.88 oz./A of Balance PRO is used, 0.9 qts./A of Bicep Lite II MAGNUM may be applied. Bicep Lite II MAGNUM can be used in combinations with Balance PRO at rates up to 1.5 qts./A on coarse textured soils if the soil organic matter content is 3% or greater. Do not use Balance PRO on coarse textured soils with less than 1.5% organic matter.

For medium textured soils, where 1.5 oz./A of Balance PRO is used, rates as low as 1.1 qts./A of Bicep Lite II MAGNUM may be applied. Where 1.88 or 2.25 oz./A of Balance PRO is used, rates as low as 0.9 qts./A of Bicep Lite II MAGNUM may be applied. Bicep Lite II MAGNUM can be used in combinations with Balance PRO at rates up to 1.5 qts./A on medium textured soils.

For fine textured soils, where 1.5 oz./A of Balance PRO is used, rates as low as 1.1 qts./A of Bicep Lite II MAGNUM may be applied if the soil organic matter is less than 3% -- if the soil organic matter content is 3% or greater, 1.5 qts./A of Bicep Lite II MAGNUM should be applied. Where 1.88 or 2.25 oz./A of Balance PRO is used, rates as low as 1.1 qts./A of Bicep Lite II MAGNUM may be applied. Where 3.0 oz./A or more of Balance PRO are used, rates as low as 0.9 qts./A of Bicep Lite II MAGNUM may be applied. Bicep Lite II MAGNUM can be used in combinations with Balance PRO at rates up to 2.2 qts./A on fine textured soils if the soil organic matter content is 3% or greater.

**Note:** Check the compatibility of Bicep Lite II MAGNUM tank mixtures with Balance PRO before mixing in spray tank by using the procedure described under **Application in Water or Fluid Fertilizers**.

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#### **TANK MIXTURES FOR POSTEMERGENCE SALVAGE WEED CONTROL IN FIELD CORN ONLY**

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For postemergence control of weeds in specific types of field corn, combined with residual preemergence control, the following combinations of Bicep Lite II MAGNUM may be used. Full season weed control from early preplant, preplant incorporated, or preemergence treatments can lead to maximum yield potential under competition-free conditions. However, if control of emerged weeds is needed, a postemergence program as listed below can be used to provide residual control for the remainder of the season.

**Notes:** (1) Follow all label directions, instructions, precautions, and limitations for each product used. (2) Do not use liquid fertilizer with these mixtures or corn injury may occur. (3) For each tank mixture, apply only to the specific field corn type specified on that product label. (4) In-row weed control may be reduced because of lack of coverage when applied to corn over 4 inches tall.

**A. Bicep Lite II MAGNUM + Liberty Herbicide: Postemergence use in LibertyLink® Corn or Corn Warranted by Bayer CropScience as being tolerant to Liberty Herbicide**

The tank mixture of Bicep Lite II MAGNUM + Liberty Herbicide can be applied postemergence to weeds and corn from seed designated as LibertyLink or corn warranted by Bayer CropScience as being tolerant to Liberty Herbicide. Liberty provides postemergence control of a broad spectrum of grass and broadleaf weeds and the Bicep Lite II MAGNUM provides residual control of grasses and broadleaf weeds listed in the label section **Bicep Lite II MAGNUM Applied Alone – Corn – Weeds Controlled**. For the proper rate of Bicep Lite II MAGNUM applied postemergence with Liberty, refer to Table 2 and use the minimum rate per soil texture for season-long control. Refer to the Liberty label for the Liberty postemergence application rate according to weed species and their maximum height at the time of postemergence application. Where multiple weed species are present, use the highest Liberty rate recommended to control the species and growth stages present.

Follow all applicable use directions, limitations, precautions, and information regarding application to corn on the Bicep Lite II MAGNUM and Liberty Herbicide labels.

**B. Bicep Lite II MAGNUM + Touchdown or Roundup Ultra for Postemergence Application to Corn with the Roundup Ready® Gene**

The tank mixture of Bicep Lite II MAGNUM + Touchdown or Roundup Ultra can be applied postemergence to weeds and to corn designated as containing the Roundup Ready Gene. Application may be applied postemergence to Roundup Ready corn up to 12 inches in height. This mixture will provide postemergence control of weed species on the Roundup Ultra label, and also residual control of weed species on the Bicep Lite II MAGNUM label. Use the minimum Bicep Lite II MAGNUM rate postemergence with Roundup Ultra in Roundup Ready corn as specified in **Table 2** of this label according to soil texture. Refer to the **Supplemental Labeling of Touchdown or Roundup Ultra for Postemergence Application to Corn with the Roundup Ready Gene** and to each product label and follow all appropriate use directions, application procedures, precautions, and limitations. Apply 24-32 fl. oz./A of Roundup Ultra for control of labeled broadleaf and grass weeds. Refer to the Roundup Ultra label for directions to control problem species.

Follow all applicable use directions, limitations, precautions, and information regarding application to corn on the Bicep Lite II MAGNUM and Touchdown or Roundup Ultra labels, and on the **Supplemental Labeling of Roundup Ultra for Postemergence Application to Corn with the Roundup Ready Gene**. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

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- C. **Bicep Lite II Magnum + Exceed®:** Apply 0.90-1.25 qts./A of Bicep Lite II MAGNUM + 1.0 oz./A of Exceed to corn that is 4-12 inches tall. The application may be broadcast, semi-directed, or directed. The Bicep Lite II MAGNUM rate is based on soil texture, with 0.90 qt./A on coarse and 1.25 qts./A on medium and fine soils. Add a nonionic surfactant at 0.25% v/v.

This mixture is effective for control of many annual broadleaf weeds and some grasses. A few instances of broadleaf weed control antagonism have been observed with this combination. Control of certain annual grasses can be improved with the addition of Accent®.

- D. **Bicep Lite II MAGNUM + Exceed + Accent:** Apply the same rates of Bicep Lite II MAGNUM and Exceed as mentioned above. Add Accent at 0.33 oz./A for more effective control of certain annual grasses. Apply to field corn between 4 and 12 inches. Add a nonionic surfactant at 0.25% v/v.

- E. **Bicep Lite II MAGNUM + Spirit™:** Spirit herbicide at 1.0 oz./A can be substituted in place of Exceed in the above combinations in field corn only.

**Notes:** Do not use fertilizer or crop oil concentrate with these mixtures or injury to field corn may occur. The combination of Bicep Lite II MAGNUM with other products for postemergence weed control in corn is generally not recommended. **These combinations may cause injury and/or weed control concerns that would not exist when the products are used separately.** A certain inherent risk is involved with the various combinations of these products used postemergence in corn. [It should be noted that early preplant, preplant incorporated, or preemergence control of these weeds would usually provide more timely weed control resulting in higher yields than total postemergence treatments.]

### Mixing Order

Add these products (Tank Mixtures C, D, and E) to the tank mix in the following order:

1. Products in water-soluble bags should be added first.
2. Bicep Lite II MAGNUM
3. Additives

**Precautions:** (1) Follow all label **instructions, precautions, and rotational restrictions** for individual products when making these applications to field corn. When Bicep Lite II MAGNUM is applied after June 10, crop injury may occur the following year if you rotate to crops other than corn or sorghum. (2) In-row weed control may be reduced because of lack of coverage when applied to corn over 4 inches tall.

**BICEP LITE II MAGNUM COMBINATIONS – GRAIN SORGHUM (SEED TREATED WITH CONCEP)**

**Tank Mixture of Bicep Lite II MAGNUM with Gramoxone MAX, Landmaster BW, Touchdown, or Roundup for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where grain sorghum is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides GramoxoneMAX, Landmaster BW, Touchdown, or Roundup may be tank mixed with Bicep Lite II MAGNUM. When used as directed, the Gramoxone MAX portion of the tank mixture controls most emerged annual weeds and suppresses many perennial weeds. Landmaster BW, Touchdown, or Roundup combinations will control emerged annual and perennial weeds when applied as directed on its label. The Bicep Lite II MAGNUM portion of the tank mixture provides preemergence control of the weeds listed on this label in the **Bicep Lite II MAGNUM Applied Alone** section.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

**Application:** Apply before, during, or after planting, but before grain sorghum emerges, at the appropriate rate in Table 9. Add Gramoxone MAX, Landmaster BW, Touchdown, or Roundup at labeled rates.

Apply in a minimum of 20 gals. of water pre acre with conventional spray equipment.

**Table 9: Bicep Lite II MAGNUM for Minimum-Tillage or No-Tillage Grain Sorghum\* (Seed treated with Concep)**

Soil Texture	Organic Matter	Broadcast Rate Per Acre
<b>COARSE</b> Sand, loamy sand, sandy loam	any level	DO NOT USE
<b>MEDIUM and FINE</b> Loam, silt loam, silt, sandy clay loam, silty clay loam, clay loam, sandy clay, silty clay, clay	less than 1.0%	DO NOT USE
	1.0-1.5%	1.1 qts.
	more than 1.5%	1.33-1.5 qts.



\*Do not use in NM or TX, except in the TX Panhandle, Gulf Coast, and Blacklands areas. Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

*Precautions: To avoid possible crop injury, (1) Do not apply Bicep Lite II MAGNUM on highly alkaline soils (pH greater than 8.0) or on eroded areas where calcareous subsoils are exposed. (2) Do not apply Bicep Lite II MAGNUM when sorghum is planted in deep furrows because heavy rains following application can cause excessive concentrations of herbicide in the furrow. (3) Do not apply to sorghum grown under dry mulch tillage. (4) Injury may occur if both Bicep Lite II MAGNUM applied early preplant, preplant surface, preplant incorporated, or preemergence and an at-planting systemic insecticide applied in-furrow are used. (5) In addition, sorghum growing under stress caused by minor element deficiency may be injured by Bicep Lite II MAGNUM.*

**Rotational Crops:** Follow the crop rotation instructions in the **Bicep Lite II MAGNUM Alone** section.

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AAtrex®, AAtrex Nine-O®, Beacon®, Bicep MAGNUM®, Bicep II MAGNUM®, Bicep Lite II MAGNUM®, Concep®, Dual MAGNUM®, Dual II MAGNUM®, Exceed®, Gramoxone®, Princep®, Princep® Caliber 90®, Touchdown®, Spirit™ and the Syngenta logo are trademarks of a Syngenta Group Company  
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SCP 827A-L1xxx                      Bulk, 100, 120, 220 Booklet  
SCP 827A-L3xxx                      2½ Gal. Booklet

2/98	Adm. changes
7/98	New York restriction
4/99	Tank mixes w/Balance, Liberty, Roundup
6/99	Deleted generic tank mix statement
1/00	Administrative amendments - add weeds, cyanazine rate limit statement, ingredients statement
5/00	Added bulk and 21/2 Gal. container labels; added 21/2 gal. container disposal to booklet
2/02	New 120 gal. Farm Pak
4/02	Deletion of metolachlor, extrazine, bladex
5/02	Addition of Touchdown as tank mix partner
12/02	Approved Touchdown as tank mix partner 12/02/02. Per EPA letter: revised first aid to PR 2001-1, changed waterproof gloves to chemical-resistant, revised Container Disposal (Bulk).
6/03	Amendment: Foundation Programs for planned 2-pass weed control systems RR & Gly-tolerant corn, revised Balance to Balance Pro, Gram Extra to Max, delete Screen

Container Label  
(2½ gal., 100 gal., 120 gal., 220 gal., and Bulk)

**RESTRICTED USE PESTICIDE  
(GROUND AND SURFACE WATER CONCERNS)**

**FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.**

**THIS PRODUCT IS A RESTRICTED-USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.**

Bicep Lite II MAGNUM®

Herbicide

For weed control in corn and grain or forage sorghum

Active Ingredients:

Atrazine (CAS No. 1912-24-9) .....	28.1%
Atrazine related compounds.....	0.6%
S-metolachlor (CAS No. 87392-12-9).....	35.8%
<hr/>	
Other Ingredients:	35.5%
<hr/>	
Total: 100.0%	

Bicep Lite II MAGNUM contains 2.67 lbs. atrazine + relateds per gallon and 3.33 lbs. of S-metolachlor active ingredient per gallon.

See directions for use in attached booklet. ] 2 1/2 gal.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional precautionary statements and directions for use in attached booklet. ]  
100, 120, 220 gal. and bulk

**AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-827

EPA Est. 100-LA-001 [2.5 gallon]

EPA Est. 100-LA-001 [100, 120 and 220 gal.]

EPA Est. (sticker) [Bulk]

2.5 gallons  
Net Contents

100 gallons  
Net Contents

120 gallons  
Net Contents

220 gallons  
Net Contents

\_\_\_\_\_ gallons  
Net Contents

SCP 827A-L1x xxxx (Bulk, 100, 120, 220)  
SCP 827A-L3x xxxx (2½ Gal.)

[100, 120, 220 Gal. and Bulk]

**ALWAYS RECIRCULATE BEFORE REUSE**

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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitations of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

**Container Refilling and Disposal (100, 120 and 220 gal.)**

This is a refillable container. If the container is to be refilled, do not rinse with any material or introduce any pesticide other than Bicep Lite II MAGNUM. Reseal and return the container to an authorized Syngenta refilling facility. If the container is not to be refilled, triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

To be used in accordance with directions for use in Bicep Lite II MAGNUM label booklet. See Bicep Lite II MAGNUM label booklet for pesticide disposal instructions.

**Container Disposal (Bulk)**

When this container is empty, replace the cap and seal all openings that have been opened during use; and return the container to the point of purchase or to a designated location named at time of purchase of this product. The container must only be refilled with this pesticide product. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact Syngenta Crop Protection, Inc. at 1-800-888-8372. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

To be used in accordance with directions for use in Bicep Lite II MAGNUM label booklet. See Bicep Lite II MAGNUM label booklet for pesticide disposal instructions.

### **Container Disposal (2½ Gal.)**

Do not reuse empty container. Triple rinse (or equivalent), puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

### **Chemigation Prohibition**

Do not apply this product through any type of irrigation system.

### **Aerial Drift Management Requirements**

Do not apply this product by air unless the supplemental labeling on **Aerial Drift Management** in Bicep Lite II MAGNUM booklet is followed.

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## **PRECAUTIONARY STATEMENTS**

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### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. This product may cause skin sensitization reactions in some people.

### **Ground Water Advisory**

Bicep Lite II MAGNUM contains both the active ingredients atrazine and S-metolachlor.

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

S-metolachlor has the potential to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

### **Surface Water Advisory**

S-metolachlor has the potential to contaminate surface water through ground spray drift. Under some conditions, S-metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

### **Mixing/Loading Instructions (100, 120, 220 gal. and Bulk)**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment.

This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to



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completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

States may have in effect additional requirements regarding well-head setbacks and operational area containment.

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-ft. buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

#### **Mixing/Loading Instructions (2½ Gal.)**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check-valves or antisiphoning devices must be used on all mixing equipment.

This product may not be mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes.\* This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 ft. of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-ft. buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.\*

\*For exceptions to these restrictions, see the **Environmental Hazards** section of the **Precautionary Statements** in the attached booklet.

**Tile-Terraced Fields Containing Standpipes (100, 120 and 220 gal. and Bulk)**

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

1. Do not apply this product within 66 ft. of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted field and immediately incorporate it to a depth of 2-3 inches in the entire tile-outletted terraced field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

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- SCP 827A-L7x xxxx (100 Gallon/Product ID 23906)
- SCP 827A-L8x xxxx (220 Gallon/Product ID 23907)
- SCP 827A-L2x xxxx (Bulk/Product ID 53341)
- SCP 827A-L3x xxxx (2½ Gal./Product ID 53355)
- SCP 827A-L9x xxxx (120 Gallon/Product ID 31663)