

100-1162

9/26/2013

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

Ms. Cherilyn Moore  
Syngenta Crop Protection, LLC  
P.O. Box 18300  
Greensboro, NC 27419-8300

SEP 26 2013

Subject: Label Amendment  
Boundary 6.5 EC Herbicide  
EPA Reg. No.: 100-1162

Dear Ms. Moore,

The Agency has received your application to amend the registration of the product described above. The submitted label is acceptable, and will be added to the file for the subject product.

If you have any questions, please contact Kathryn Montague (703-305-1243 or [montague.kathryn@epa.gov](mailto:montague.kathryn@epa.gov)).

Sincerely,

A handwritten signature in black ink that reads 'Kathryn V. Montague'.

Kathryn V. Montague  
Product Manager 23  
Herbicide Branch  
Registration Division (7505P)

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Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

**GROUP 5 15 HERBICIDES**

**Boundary® 6.5EC Herbicide**

For control of certain grasses and broadleaf weeds in potatoes and soybeans

Active Ingredients:	
S-metolachlor*.....	58.2%
Metribuzin**.....	13.8%
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Other Ingredients*:	28.0%
Total:	100.0%

\*CAS No. 87392-12-9  
\*\*CAS No. 21087-64-9

Contains 5.25 lbs. of S-metolachlor and 1.25 lbs. of metribuzin per gallon.

\*Contains approximately 14% petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

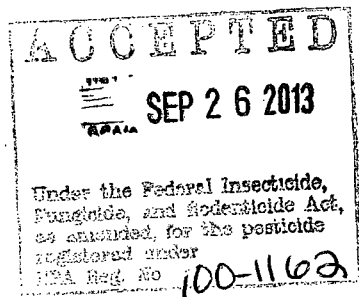
See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1162

EPA Est.

SCP 1162A

2.5 gallons  
220 gallons  
\_\_\_\_\_gallons  
Net Contents



<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<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 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>
<b>NOTE TO PHYSICIAN</b>	
May pose an aspiration pneumonia hazard. Contains petroleum distillate.	
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>	

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Contains petroleum distillate. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or Viton®
- Shoes plus socks

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

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

**Ground Water Advisory**

S-metolachlor is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

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

**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 and/or irrigation equipment.

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 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.

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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 must 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, LLC or Seller. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Limitation 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.

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

### AGRICULTURAL USE REQUIREMENTS

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

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

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, wear:

- Coveralls
- Chemical-resistant gloves, such as nitrile, butyl, neoprene and/or barrier laminate
- Shoes plus socks

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

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

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## PRODUCT INFORMATION

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Observe all precautions and limitations on the labels of each product used in tank mixtures. Tank mixture partners must be registered in states where they are used. Refer to and follow the label for each tank mix product used.

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

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

- 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.
- Do not apply to impervious substrates, such as paved or highly compacted surfaces.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

### Mixing Instructions

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean the spray equipment before using Boundary 6.5EC. Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain maximum agitation throughout the spraying operation. Do not allow spray mixture to stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

### Application in Water or Fluid Fertilizers

**Boundary 6.5EC Alone:** Add ⅓ of the required amount of water or fluid fertilizer to the spray or mixing tank. With the agitator running, add Boundary 6.5EC into the spray tank. Continue agitation while adding the remainder of the water or fluid fertilizer. Begin application of the spray solution after the Boundary 6.5EC has completely dispersed in the water or fluid fertilizer. Maintain agitation until all of the mixture has been applied.

**Boundary 6.5EC + Tank Mixtures:** Add ⅓ of the required amount of water or fluid fertilizer to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids such as Boundary 6.5EC, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product.



Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

(1) When using Boundary 6.5EC in tank mixtures, all products in water-soluble packaging should be added to the tank and mixed with plain water before any other tank mix partner, including Boundary 6.5EC. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank. (2) Water-soluble packets will not properly dissolve in most spray solutions that contain fluid fertilizers.

If using Boundary 6.5EC in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations that appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations must be followed.

Boundary 6.5EC is compatible with most common tank mix partners. However, the physical compatibility of Boundary 6.5EC with tank mix partners should be tested before use. To determine the physical compatibility of Boundary 6.5EC with other products, use a jar test, as described below.

### Compatibility Test

A jar test is recommended before tank mixing to ensure compatibility of Boundary 6.5EC with other pesticides. The following test assumes a spray volume of 25 gal./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 ¼ tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (¼ tsp. is equivalent to 2.0 pt./100 gal. 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.

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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 ½ the compatibility agent to the fertilizer or water and the other ½ to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section in this label.

**Ground Application:** Apply Boundary 6.5EC alone or in tank mixtures by ground equipment in a minimum of 10 gallons of spray mixture per acre, unless otherwise specified. For certain ground application equipment approved by Syngenta, apply in a minimum of 2 gallons of spray mixture per acre. Contact your local Syngenta representative for a list of approved equipment.

Use sprayers that provide accurate and uniform application. Calibrate the sprayer before use at the beginning of the season. For Boundary 6.5EC tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh.

Calculate the amount of herbicide needed for band treatment by the formula:

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

**Center Pivot Irrigation Application**

If chemigating, apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## Operating Instructions

- The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- Meter into irrigation water during entire period of water application.
- Apply in ½-1 inch of water. Use the lower water volume (½ inch) on *coarse-textured soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

*Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.*

**Aerial Application:** Apply Boundary 6.5EC in water using a minimum spray volume of 2 gal./A. Avoid application under conditions where uniform coverage cannot be

obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 ft. above the crop with low-drift nozzles at a maximum pressure of 40 psi.

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 determines 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.

1. The distance of the outermost nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
2. 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 **Spray Drift Management** section below.

### **Spray Drift Management**

#### **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 air stream 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  $\frac{3}{4}$  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**

Boundary 6.5EC 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, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

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

## **Cleaning Equipment After Application**

Because some non-labeled crops are sensitive to low rates of Boundary 6.5EC, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using the following procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of one gal. of household ammonia per 50 gal. of water. Many commercial spray tank cleaners may be used as well. Consult your Syngenta representative for a partial listing of approved tank cleaners and more information about proper tank cleaning procedures. Do not use chlorine-based cleaners such as Clorox®.

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3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly re-circulate the cleaning solution for **at least 15 minutes**. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.
5. Dispose of rinsate from steps 1-3 as described under the **Environmental Hazards** section of the **Precautionary Statements**.
6. Repeat steps 2-5.
7. Remove nozzles, screens, and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

#### **Impregnation Onto Dry Bulk Granular Fertilizers**

Many dry bulk granular fertilizers may be impregnated or coated with Boundary 6.5EC and used to control weeds. When applying Boundary 6.5EC with dry bulk fertilizers, follow all directions for use and precautions on the Boundary 6.5EC label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

Complying with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application is 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 Boundary 6.5EC onto the fertilizer must be spaced 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 materials being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

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Calculate the amount of Boundary 6.5EC to be used by the following formula:

$$\frac{2,000}{\text{lbs. of fertilizer per acre}} \times \text{pt. of Boundary 6.5EC per acre} = \text{pt. of Boundary 6.5EC per ton of fertilizer}$$

**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 Boundary 6.5EC with Exxon Aromatic 200 at a rate of 2.0-2.5 pt./gal. of Boundary 6.5EC. 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.

**Restrictions:** (1) Mixtures of Boundary 6.5EC 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 Boundary 6.5EC in a blender before application, a drier mixture can be obtained 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 Boundary 6.5EC on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not combine Boundary 6.5EC with a single superphosphate (1-20-0) or treble superphosphate (0-46-0). (3) Do not use Boundary 6.5EC on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.*

**Application of Impregnated Dry Bulk Granular Fertilizer**

Apply 200-700 lb. 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 to subsequent rotational crops. Non-uniform 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: To help avoid rotational crop injury, make applications as early as possible, since Boundary 6.5EC impregnated onto dry bulk fertilizers can be expected*



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to last longer in the soil than Boundary 6.5EC applied as a spray in water or fluid fertilizer.

**Table 1: Crop Rotation Intervals<sup>1,3</sup>**

Rotational Interval After Application of Boundary 6.5EC <sup>2</sup>				
4 months	4½ Months	8 Months	12 Months	18 Months
Corn	Winter Barley Winter Wheat Alfalfa	Peas Rice Spring Barley Spring Wheat	Asparagus Cotton Forage Grasses Lentils Sainfoin Sugarcane Tomatoes Other Crops not listed (except root crops)	Onions Sugar Beets and Other Root Crops

<sup>1</sup>Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.

<sup>2</sup>Crop rotation recommendations do not include restrictions for the tank mix partner. Refer to the label of the other product for additional restrictions.

<sup>3</sup>Refer to the specific crop use sections for additional crop rotation precautions.

**Replanting**

If replanting is necessary in fields previously treated with Boundary 6.5EC, the field may be replanted to soybeans or potatoes. Before replanting, refer to the specific crop use sections for recommendations, precautions and restrictions.

**Activation**

A small amount of rainfall or irrigation is required to activate Boundary 6.5EC following application. In areas of low rainfall, a preemergence application should be followed by light irrigation of ¼ to ½ inch of water. Do not apply heavy irrigation immediately after application. As with many surface-applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture.

**POTATOES (EXCEPT CALIFORNIA)**

Boundary 6.5EC is recommended for preemergence weed control prior to or after potato emergence. Boundary 6.5EC has some postemergence activity on weeds, but the consistency and spectrum of weed control is much better preemergence to weeds. Preplant incorporated applications are not recommended due to an increased risk of crop injury.

**Preemergence Applications**

Apply with ground spray equipment, aerial spray equipment, or by center pivot irrigation equipment which is capable of making a uniform broadcast application. Apply after planting but before crop emergence, or apply after drag-off if this operation is part of the usual cultural practice.

**Postemergence Applications**

Apply postemergence only in center pivot irrigation water, after drag-off if that is a usual cultural practice, but not closer than 60 days before harvest. Refer to the "Center Pivot Irrigation Application" section of this label for application information.

**Table 2: Weeds Controlled by Boundary 6.5EC**

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**Annual Broadleaves\***

Anoda, spurred	Lambsquarters, common	Redweed
Beggarweed, Florida	Lettuce, prickly	<i>Sesbania</i> spp.
Carpetweed	Mallow, Venice	Shepherd's-purse
Chickweed, common	Mustard spp.	Sicklepod
Copperleaf, hophornbeam	Nightshade, black	Sida, prickly/teaweed
<i>Galinsoga</i> spp.	Pennycress, field	Smartweed, Pennsylvania
Henbit	Pepperweed, Virginia	Spurge, spotted
Jimsonweed	Pigweed spp.	Starbur, bristly
Knotweed spp.	Purslane, common	Thistle, Russian
Ladysthumb	Pusley, Florida	Waterhemp spp.

**Annual Grasses**

Barnyardgrass	Goosegrass
Bluegrass, annual	Junglerice
Crabgrass spp.	Panicum, fall
Crowfootgrass	Rice, red
Cupgrass, prairie	Signalgrass, broadleaf
Cupgrass, southwestern	Witchgrass
Foxtail spp.	

**Sedges**

Yellow nutsedge

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Boundary 6.5 EC will provide suppression\*\* of the following broadleaf weeds (except triazine-resistant broadleaf biotypes): cocklebur, common ragweed, kochia, velvetleaf, hairy nightshade and common sunflower and grasses such as seedling johnsongrass, Texas panicum, sandbur spp., shattercane, and the volunteer crops: barley, sorghum, and wheat.

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\*Except triazine-resistant biotypes other than *Galinsoga* spp., black nightshade, pigweed spp. and waterhemp spp..

\*\*Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.

**Application Rates**

The application rates for Boundary 6.5EC for use in potatoes are provided below. Where a rate range is given, use the lower end of the rate range on the more coarse-textured soils listed within that group and/or where weed pressures are known to be light; use the high end of the rate range on the more fine-textured soils listed within that group and/or where the weeds pressures are known to be heavy.

**Table 3: Boundary 6.5EC Preemergence Use Rates in Potatoes**

Soil Texture	0.5 to 3% Organic Matter Pt./A	Over 3% Organic Matter Pt./A
<b>COARSE</b> <sup>1</sup> (Sand, loamy sand, sandy loam)	1.5-2.0	2.0-2.4
<b>MEDIUM or FINE</b> (Loam, silt loam, silt, sandy clay, sandy clay loam, silty clay, silty clay loam, clay, clay loam)	2.4-2.75	2.75-2.9

<sup>1</sup>On soils that classify as a "sand" texture do not use more than 1.5 pt./A of Boundary 6.5EC, or more than 0.5 lb. a.i./A of metribuzin in total, or crop injury may occur.

**Table 4: Boundary 6.5EC Postemergence Use Rates in Potatoes (for application in center pivot irrigation water only)**

Soil Texture	0.5% Organic Matter and Above Pt./A
<b>COARSE</b> <sup>1</sup> (Sand, loamy sand, sandy loam)	1.5
<b>MEDIUM or FINE</b> (Loam, silt loam, silt, sandy clay, sandy clay loam, silty clay, silty clay loam, clay, clay loam)	1.5-2.2

<sup>1</sup>Crop injury may occur on soils that classify as a "sand" texture and have less than 0.5% organic matter.

**Restrictions:**

- Two applications may be applied per year. For potatoes grown in soils with organic matter between 3% and 10% do not apply more than 5.1 pints (3.35 lb. a.i. S-metolachlor) per acre/year; and in soils with organic matter between 0.5% and 3.0% do not apply more than 4.95 pints (3.25 lb. a.i. S-metolachlor) per acre/year. Do not apply more than 1.0 lb. a.i. of metribuzin per acre/year. Boundary 6.5EC is not recommended for application to muck or peat soils.

2. Do not apply Boundary 6.5EC postemergence if the weather in the next 3 days is predicted to be cool, wet or cloudy, as crop injury may occur.
3. Do not harvest within 60 days of the last Boundary 6.5EC application.
4. Do not apply after June 30 in Idaho, Oregon, or Washington if the treated land will be planted to a crop other than potatoes in the fall.
5. Do not apply Boundary 6.5EC to sweet potatoes or yams.

**Precautions:**

1. To avoid crop injury, postemergence applications should be made only on russetted or white skinned varieties of potatoes that are not early maturing. Avoid postemergence applications on Atlantic, Bellchip, Centennial, Chipbelle, Shepody and Superior varieties. Preemergence applications on these varieties may cause crop injury under adverse weather conditions, on coarse soils, under high soil pH and with higher use rates.
2. Potato varieties may vary in their response to a given herbicide application. When using Boundary 6.5EC for the first time on a particular variety, always determine crop tolerance before using on a field-scale.
3. The planting of sensitive crops such as lettuce, cole crops and cucurbits during the next growing season following application of Boundary 6.5EC may result in injury to that crop.
4. Certain cereal varieties are sensitive to metribuzin (e.g. see cereal section of the Sencor 4 or Sencor DF label) and should not be planted during the next growing season unless the following cultural practices occur:
  - a. Potato vines left in the row as a result of harvest must be uniformly distributed over the soil surface prior to plowing, and
  - b. Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.
5. Do not apply Boundary 6.5EC as a preplant incorporated application in potatoes, or crop injury may occur.

**Tank Mixtures With Other Products Registered for Use in Potatoes**

For preemergence applications in potatoes, Boundary 6.5EC may be tank mixed with other pesticide products registered for use in this way and timing in potatoes. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels. If you have no previous

experience mixing these products under your conditions, perform a compatibility test before attempting large-scale mixing (see the Compatibility Test section of this label).

For postemergence applications (center pivot irrigation applications only), i.e. where potato vines are exposed, there may be increased risk of crop injury from certain product mixtures. At this application timing, tank mix Boundary 6.5EC only with pesticide products which allow tank mixing and postemergence chemigation on their product label. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels.

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### **SOYBEANS (EXCEPT CALIFORNIA)**

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Boundary 6.5EC may be applied preplant surface, preplant incorporated, preemergence, or as a sequential application to control weeds listed on this label.

#### **Grazing and Feeding Treated Soybean Plants**

Treated soybean plants may be grazed or fed to livestock 40 days after the last application of Boundary 6.5EC.

#### **Rate Ranges**

Where a rate range is shown, use a lower rate on soils that are coarse-textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.

#### **Replanting**

If replanting is necessary in fields previously treated with Boundary 6.5EC, the field may be replanted to soybeans. A minimum of tillage is recommended. Do not apply a second treatment as injury to soybeans may occur.

#### **Precautions (Soybeans)**

Injury to soybeans or reduced weed control may occur when Boundary 6.5EC is used under the following conditions; these conditions should be avoided wherever possible.

- When soils have a calcareous surface area or a pH of 7.5 or higher.
- Due to the sensitivity of certain soybean varieties, Boundary 6.5EC is not recommended for use on Altona, AP 55, AP 71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, NB 3665, NKS 1884, Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig 606, Tracy, Vansoy, and Vinton 81. If you choose to plant a newly released soybean variety, consult your seed supplier for information on its tolerance to metribuzin (an active ingredient in Boundary 6.5EC) before using Boundary 6.5EC.

- When applied in conjunction with soil-applied organic phosphate pesticides.
- Uneven application or improper incorporation of Boundary 6.5EC can decrease the level of weed control and/or increase the level of crop injury.
- When applied to any soil with less than 0.5% organic matter.
- Where soil incorporation is deeper than recommended.
- When sprayers were not calibrated accurately.
- When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.
- When soybeans are planted less than 1-1/2" deep, particularly when Boundary 6.5EC is applied preemergence.
- Where high soil levels of atrazine are present.
- When using poor quality soybean seed.

Boundary 6.5EC, when applied as directed, will control the following weeds.

**Table 5: Weeds Controlled by Boundary 6.5EC**

**Annual Broadleaves\***

Anoda, spurred	Lambsquarters, common	Redweed
Beggarweed, Florida	Lettuce, prickly	<i>Sesbania</i> spp.
Carpetweed	Mallow, Venice	Shepherd's-purse
Chickweed, common	Mustard spp.	Sicklepod
Copperleaf, hophornbeam	Nightshade, black	Sida, prickly/teaweed
<i>Galinsoga</i> spp.	Pennycress, field	Smartweed, Pennsylvania
Henbit	Pepperweed, Virginia	Spurge, spotted
Jimsonweed	Pigweed spp.	Starbur, bristly
Knotweed spp.	Purslane, common	Thistle, Russian
Kochia	Pusley, Florida	Waterhemp spp.
Ladysthumb		

**Annual Grasses**

Barnyardgrass	Goosegrass
Bluegrass, annual	Junglerice
Crabgrass spp.	Panicum, fall
Crowfootgrass	Rice, red
Cupgrass, prairie	Signalgrass, broadleaf
Cupgrass, southwestern	Witchgrass
Foxtail spp.	

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Boundary 6.5EC will provide suppression\*\* of cocklebur, common ragweed, seedling johnsongrass, velvetleaf, hairy nightshade, yellow nutsedge, Texas panicum, sandbur spp., shattercane, common sunflower, and the volunteer crops barley, sorghum, and wheat.

\*Except triazine-resistant biotypes other than *Galinsoga* spp., black nightshade, pigweed spp. and waterhemp spp.

\*\*Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.

**Boundary 6.5EC Foundation Program for Planned 2-Pass Weed Control Systems**

Boundary 6.5EC may be applied preplant incorporated or preemergence at 1.5-1.8 pt./A on all soils to reduce competition from the weeds listed in Table 5 for a 30-day period when followed by a planned postemergence weed control treatment. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field including Roundup® or Touchdown® brands (for use only on Roundup Ready® or glyphosate tolerant soybean varieties). Follow all application directions for Boundary 6.5EC used alone, either preplant incorporated or preemergence. For the postemergence herbicide application, consult the selected postemergence herbicide manufacturer's label for weeds controlled, weed size, application rate, additional use directions, precautions, and limitations before use.

**Restriction:** On soils with pH above 7.0, use the 1.5 pt./A rate only.

**Boundary 6.5EC in Conventional Tillage Systems**

**Preplant Incorporated Application**

Incorporate Boundary 6.5EC uniformly into the top 2 inches of soil within 14 days before planting using a disk, field cultivator, rolling cultivator, or similar implement. Apply Boundary 6.5EC preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected. If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation.

**Preemergence Application**

Dry weather following preemergence application of Boundary 6.5EC may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tilling equipment such as a rotary hoe that will not damage soybeans.

For information on applying product in fluid or dry fertilizer, refer to **Application in Water or Fluid Fertilizers or Impregnation Onto Dry Bulk Granular Fertilizers and Application of Impregnated Dry Bulk Granular Fertilizer** on this label.

**Table 6: Boundary 6.5EC Use Rates - Conventional Tillage Systems (Broadcast Rate)**

Soil Texture	0.5 to 3% Organic Matter (Pt./A)	Over 3% Organic Matter <sup>2</sup> (Pt./A)
<b>COARSE</b> <sup>1</sup> (Loamy sand, sandy loam)	1.2-1.5 <sup>3</sup>	1.5-1.8
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.8-2.1	2.1-2.4
<b>FINE</b> (Silty clay, silty clay loam <sup>4</sup> , clay, clay loam)	2.4-2.7	2.4-3.0

<sup>1</sup> Do not use on sand soils. On coarse-textured soils, do not use on loamy sand soils with less than 2% organic matter.

<sup>2</sup> For preplant incorporated application, use the lower rate.

<sup>3</sup> For Southern and Southeastern states, see section below **In Coarse (Light) Soils**

<sup>4</sup> Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC may occur at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

**In Coarse (Light) Soils**

(Only in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, VA)

Boundary 6.5EC may be applied as a preplant incorporated or preemergence application in coarse-textured, low organic matter soils in the states listed above. Refer to the appropriate sections of this label for specific directions on use, recommendations, and restrictions.

**Weeds Controlled:** Refer to Table 5.



**Table 7: Boundary 6.5EC Preemergence Application (Broadcast Rates)**

Soil Texture	Organic Matter	Boundary 6.5EC (Pt./A)
<b>COARSE</b> (Sand <sup>1</sup> , loamy sand, sandy loam)	0.5% or above	1.2-2.1

<sup>1</sup>Not recommended for use on sand with less than 1% organic matter.

<sup>2</sup>Use the higher rate under heavy weed pressures and/or on soils higher in organic matter. For maximum control of sicklepod, use a preemergence application.

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC may occur at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

**Boundary 6.5EC Plus Python® 80 WDG Tank Mix Application**

Boundary 6.5EC may be applied with Python Herbicide preplant surface, preplant incorporated, or preemergence for the control of certain broadleaf weeds and grasses in soybeans. Consult the Python label for specific directions on use, recommendations, and restrictions not specified on this label. Where differences arise, the more restrictive language must be followed.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, Boundary 6.5EC plus Python will improve control of Palmer amaranth, velvetleaf, common ragweed, wild sunflower, waterhemp spp., kochia, and triazine-resistant common lambsquarters. (Note: Python will not improve control of ALS-resistant weeds.)

**Table 8: Boundary 6.5EC Plus Python 80 WDG Application (Broadcast Rates)**

Soil Texture	Boundary 6.5EC <sup>1</sup> (Pt./A)	Python 80 WDG <sup>1</sup> (Oz./A)
<b>COARSE</b> (Loamy sand or sandy loam)	1.2-1.5	0.8-0.89
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5-2.1	0.89-1.0
<b>FINE</b> (Silty clay, silty clay loam <sup>3</sup> , clay loam)	2.1-2.7	0.89-1.0

<sup>1</sup>Use the higher rate on soils with more than 3% organic matter.

<sup>2</sup>For Southern and Southeastern states in coarse soils, see In Coarse (Light) Soils section of this label for rates of Boundary 6.5EC.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC occasionally occurs at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

### Boundary 6.5EC Plus Scepter® 70 DG Tank Mix Application

Boundary 6.5EC may be applied with Scepter herbicide preplant surface, preplant incorporated, or preemergence for the control of certain broadleaf weeds and grasses in soybeans. Consult the Scepter label for specific directions on use, recommendations, restrictions, and any additional weeds not specified on this label. Where differences arise, the more restrictive language must be followed.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, Boundary 6.5EC plus Scepter improves control of the following annual broadleaf weeds:

- |                           |                 |
|---------------------------|-----------------|
| Buffalobur                | Ragweed, common |
| Cocklebur                 | Sicklepod       |
| Morningglory, pitted      | Sunflower       |
| Morningglory, smallflower |                 |

Boundary 6.5EC plus Scepter will provide suppression (reduce the competition) of ivyleaf and tall morningglory, and giant ragweed.

**Table 9: Boundary 6.5EC Plus Scepter Application (Broadcast Rates)**

Soil Texture	Boundary 6.5EC <sup>1</sup> (Pt./A)	Scepter 70 DG <sup>2</sup> (Oz./A)
<b>COARSE</b> (Loamy sand or sandy loam)	1.2-1.5 <sup>3</sup>	1.4-2.1
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5-2.1	1.4-2.1
<b>FINE</b> (Silty clay, silty clay loam <sup>4</sup> , clay, clay loam)	2.1-2.7	1.4-2.1

<sup>1</sup>Higher rate is recommended on soils with more than 3% organic matter.

<sup>2</sup>For preemergence application, use the higher rate. For maximum control of moderate to heavy infestations of cocklebur, giant ragweed, and sicklepod, use the higher rate and a preplant incorporated application.

<sup>3</sup>For Southern and Southeastern states in coarse soils, see the In Coarse (Light) Soils section of this label for Boundary 6.5EC rates.

<sup>4</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC may occur at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

**Boundary 6.5EC Plus Canopy® 75 DG Tank Mix Application**

Boundary 6.5EC may be applied with Canopy herbicide as a preplant surface, preplant incorporated, or preemergence application for the control of certain broadleaf weeds and grasses in soybeans. Consult the Canopy herbicide label for specific directions on use, recommendations, and restrictions not specified on this label. Where differences arise, the more restrictive language must be followed.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, Boundary 6.5EC plus Canopy will improve control of cocklebur and velvetleaf and provide additional suppression (reduce competition) of giant ragweed, common ragweed, and morningglory spp.

**Table 10: Boundary 6.5EC Plus Canopy 75 DG Application (Broadcast Rates)**

Soil Texture <sup>1</sup>	Boundary 6.5EC <sup>2</sup> (Pt./A)	Canopy <sup>5</sup> 75 DG (Oz./A)
<b>COARSE</b> (Loamy sand or sandy loam)	1.2-1.5 <sup>3</sup>	N/A
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5-2.1	3
<b>FINE</b> (Silty clay, silty clay loam <sup>4</sup> , clay, clay loam)	2.1-2.7	3-4

<sup>1</sup>Do not use on soils with pH greater than 7.0.

<sup>2</sup>Use higher rate on soils with more than 3% organic matter.

<sup>3</sup>For Southern and Southeastern states in coarse soils, see **In Coarse (Light) Soils** section of this label for rates of Boundary 6.5EC.

<sup>4</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

<sup>5</sup>Do not use Canopy 75 DG as a mix partner on soils with pH above 6.8.

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC occasionally occurs at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

**Boundary 6.5EC Plus FirstRate® 84 WDG Tank Mix Application**

Boundary 6.5EC may be applied with FirstRate 84 WDG herbicide as a preplant, preplant incorporated, or preemergence application for the control of certain broadleaf weeds and grasses in soybeans. Consult the FirstRate label for specific directions on use, recommendations, and restrictions not specified on this label. Where differences arise, the more restrictive language must be followed.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, Boundary 6.5EC plus FirstRate will improve control of cocklebur, giant ragweed,

common ragweed, common sunflower, and velvetleaf and provide additional suppression (reduce competition) of morningglory species.

**Table 11: Boundary 6.5EC Plus FirstRate Application (Broadcast Rates)**

Soil Texture	Boundary 6.5EC (Pt./A)	FirstRate 84 WDG <sup>1</sup> (Oz./A)
<b>COARSE</b> (Loamy sand or sandy loam)	1.2-1.5 <sup>2</sup>	0.3-0.45
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5-2.1	0.3-0.45
<b>FINE</b> (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	2.1-2.7	0.3-0.45

<sup>1</sup>Use higher rate on soils with more than 3% organic matter.

<sup>2</sup>For Southern and Southeastern states in coarse soils, see **In Coarse (Light) Soils** section of this label for rates of Boundary 6.5EC.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC occasionally occurs at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

**Boundary 6.5EC Plus Command® 3ME Tank Mix Application**

Boundary 6.5EC may be applied with Command as a preplant or shallow incorporated broadcast application for the control of certain broadleaf weeds and grasses in soybeans. Command may also be applied preemergent. Consult the Command label for specific directions for use, recommendations, and restrictions not specified on this label. Where differences arise, the more restrictive language must be followed.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, Boundary 6.5EC plus Command will provide improved control of heavy infestations of velvetleaf, jimsonweed, and common ragweed.

**Table 12: Boundary 6.5EC Plus Command Application (Broadcast Rates)**

Soil Texture	Boundary 6.5EC <sup>1</sup> (Pt./A)	Command 3ME (Pt./A)
<b>COARSE</b> (Loamy sand or sandy loam)	1.2-1.5 <sup>2</sup>	2/3-1
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5-2.1	2/3-1
<b>FINE</b> (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	2.1-2.7	2/3-1

<sup>1</sup>Higher rate is recommended on soils with organic matter greater than 3%.

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<sup>2</sup>For Southern and Southeastern states in coarse soils, see the **In Coarse (Light) Soils** section of this label for Boundary 6.5EC rates.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC occasionally occurs at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

*Precautions: (1) Do not plant wheat, oats, barley, rye, or alfalfa in the fall or following spring after application as crop injury may occur. (2) Do not apply where weather conditions favor drift.*

**Boundary 6.5EC Plus Prowl® 3.3 EC Tank Mix Application**

Boundary 6.5EC may be applied with Prowl as a preplant surface, preplant incorporated, or preemergence broadcast application for the control of certain broadleaf weeds and grasses in soybeans. Consult the Prowl label for specific directions for use, recommendations, and restrictions not specified on this label. Where differences arise, the more restrictive language must be followed.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, Boundary 6.5EC plus Prowl will provide improved control for triazine-resistant weeds such as common lambsquarters, pigweed spp., etc.

**Table 13: Boundary 6.5EC Plus Prowl Application (Broadcast Rates)**

Soil Texture	Boundary 6.5EC <sup>1</sup> (Pt./A)	Prowl 3.3 EC (Pt./A)
<b>COARSE</b> (Loamy sand or sandy loam)	1.5-1.8 <sup>2</sup>	1.2-2.4
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.8-2.1	1.8-3.6
<b>FINE</b> (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	2.1-2.7	1.8-3.6

<sup>1</sup>Higher rate is recommended on soils with organic matter greater than 3%.

<sup>2</sup>For Southern and Southeastern states in coarse soils, see the **In Coarse (Light) Soils** section of this label for Boundary 6.5EC rates.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Restrictions:** On soils with pH above 7.0, soybean injury caused by the metribuzin in Boundary 6.5EC occasionally occurs at rates higher than 1.5 pt./A. To avoid injury, do not use Boundary 6.5EC at rates greater than 1.5 pt./A on soils above pH 7.0.

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### Herbicides That May Be Applied Postemergence Following Boundary 6.5EC

If required, application of Boundary 6.5EC alone or in tank mixture may be followed by an application of a postemergence herbicide to provide additional control of certain weeds. The following postemergence herbicides may be applied:

Aim®	Frontrow®	Resource®
Arrow™	Fusion®	Rezult® A&B
Assure® II	Harmony® GT XP	Roundup® brands <sup>1</sup>
Basagran®	Liberty® <sup>2</sup>	Scepter
Classic®	Poast®	Select®
Cobra®	Poast Plus®	Sequence® <sup>1</sup>
Extreme <sup>1</sup>	Pursuit®	Storm®
FirstRate	Raptor®	Synchrony® XP <sup>3</sup>
Flexstar®	Reflex®	Touchdown® brands <sup>1</sup>
Flexstar® GT 3.5 <sup>1</sup>		Ultra Blazer®
Fusilade® DX		

<sup>1</sup>Use on Roundup-Ready or glyphosate tolerant soybean varieties only.

<sup>2</sup>Use on LibertyLink® soybean varieties only.

<sup>3</sup>Use on STS™ soybean varieties only.

Refer to the above information and the individual product labels for use directions, use rates, and special precautions/restrictions.

### Reduced Rate Scepter 70 DG Application Following Boundary 6.5EC

If required, application of Boundary 6.5EC alone or in tank mixture may be followed by an early postemergence application of a reduced rate of Scepter herbicide for improved control of cocklebur. Apply 0.7-1.4 oz. of Scepter 70 DG. Use the lower rate of Scepter if cockleburs are less than 3 inches tall or have fewer than 3 leaves and are actively growing and use the higher rate if cockleburs are 3-6 inches tall and actively growing. Do not use Scepter when plants have been subjected to stress conditions. Use of nonionic surfactant or crop oil concentrate is recommended for Scepter applications. Refer to the Scepter 70 DG label for additional use directions and special precautions/restrictions. Where differences arise, the more restrictive language must be followed.

### Burndown Weed Control

Boundary 6.5EC can be used as part of a burndown herbicide program for control of existing vegetation prior to soybean emergence in conservation tillage (reduced-tillage/no-till) systems. Boundary 6.5EC may be tank mixed with 2,4-D low volatile ester (LVE), Gramoxone® SL 2.0, Touchdown brands, Roundup brands, Fusion, Poast Plus, or Select for control of emerged weeds prior to crop emergence. Boundary 6.5EC burndown tank mixes can be applied before planting or prior to crop emergence.

### Application

Boundary 6.5EC may be applied up to 30 days before planting or preemergence. Apply only by ground equipment when Boundary 6.5EC is used for burndown of existing vegetation in conservation tillage systems. Use the high end of the rate range for Boundary 6.5EC applications made 14-30 days before planting. Refer to Table 16 for rates of Boundary 6.5EC and to the following table for rates of tank mix partners. Follow all label directions, restrictions, and precautions for tank mix partners. Where differences arise, the more restrictive language must be followed.

**Table 14: Burndown Rates of Tank Mix Partners**

Product	Rate	Directions and Remarks
2,4-D LVE	0.25-1 lb. a.i./A	Apply at least 7 days preplant when using 2,4-D LVE at 0.25-0.5 lb. a.i./A and at least 30 days preplant with rates greater than 0.5 lb. a.i./A. Include crop oil concentrate (COC) at the rate of 1 gal./100 gal. of spray solution (1% v/v).
Gramoxone SL 2.0	32-64 fl. oz./A	Must be applied prior to crop emergence. Use 32-40 fl. oz. of Gramoxone SL 2.0 for weeds less than 4 inches in height and 40-64 fl. oz. when weeds are 4-6 inches in height. Apply in 20-60 gal. of water per acre. Include either nonionic surfactant at 1 qt./100 gal. (0.25% v/v) or crop oil concentrate at 1 gal./100 gal. (1% v/v) of spray solution.
Gramoxone SL 2.0 + 2,4-D LVE	32-64 fl. oz./A + 0.25-1 lb. a.i./A	Follow the <b>Directions and Remarks</b> section above for 2,4-D LVE and Gramoxone SL 2.0 paying special attention to crop planting restrictions with 2,4-D LVE. Include either nonionic surfactant or crop oil concentrate in this tank mix.
Touchdown brands or Roundup brands	Refer to product label for use rates	Must be applied prior to crop emergence. Use the higher rates as weeds approach the maximum weed heights listed in Table 15. Apply in 10-20 gal. of water per acre. Refer to the Touchdown or Roundup label for spray adjuvant recommendations. Any glyphosate formulation registered and labeled for use in soybeans may be tank mixed with Boundary 6.5EC.

Product	Rate	Directions and Remarks
Touchdown brands or Roundup brands + 2,4-D LVE	Refer to the Touchdown or Roundup label for use rates + 0.25 lb. a.i./A	Follow the <b>Directions and Remarks</b> section above for 2,4-D LVE and Touchdown/Roundup paying special attention to planting restrictions with 2,4-D LVE. Refer to the Touchdown or Roundup label for spray adjuvant recommendations. Do not use crop oil concentrate.
Fusion + 2,4-D LVE	4-8 fl. oz./A + 0.25-1 lb. a.i./A	Follow the planting restrictions under the <b>Directions and Remarks</b> section above for 2,4-D LVE. Fusion rates of 4, 6, and 8 fl. oz. will control certain grasses up to 2, 4, and 6 inches in height, respectively. Include either crop oil concentrate at 1 gal./100 gal. (1.0% v/v) or nonionic surfactant at 1-2 qt./100 gal. (0.25-0.5% v/v) of spray solution. Refer to the Fusion label for additional information.
Poast Plus + 2,4-D LVE	8-16 fl. oz./A + 0.25-1 lb. a.i./A	Follow the planting restrictions under the <b>Directions and Remarks</b> section above for 2,4-D LVE. The 8 and 12 fl. oz. rates of Poast Plus will control certain grasses up to 2 and 3 inches in height, respectively. Include either crop oil concentrate at the rate of 1 gal./100 gal. of spray solution (1% v/v) or Dash® HC at 1 pt./A. Refer to the Poast Plus label for additional information.
Select + 2,4-D LVE	3-4 fl. oz./A + 0.25-1 lb. a.i./A	Follow the planting restrictions under the <b>Directions and Remarks</b> section above for 2,4-D LVE. The 3 and 4 fl. oz. rates of Select will control certain grasses up to 3 and 4 inches in height, respectively. Include crop oil concentrate at the rate of 1 qt./A and 28% UAN (urea ammonium nitrate) at a rate of 1-2 qt./A Refer to the Select label for additional information.

*Precautions: Do not apply these treatments after crop emergence. Observe all precautions and limitations on the labeling of all products used in tank mixtures. Refer to the **Product Information** section of this label for additional information, precautions, and limitations.*

**Soybeans**

1. Apply only 2,4-D low volatile ester formulations which are registered and recommended for preplant or burndown use.
2. Do not apply tank mixtures containing 2,4-D LVE if wind is blowing toward desired susceptible plants (i.e., cotton, tobacco, tomato, etc.) or when wind



speeds exceed 6 miles per hour. Observe all cautions and limitations of all products used in tank mixtures.

**Feeding Restrictions**

Soybean plants or hay treated with Boundary 6.5EC may be grazed or fed to livestock 40 days after application. Follow the most restrictive preharvest interval of all products used in a tank mixture.

**Weeds Controlled:** Boundary 6.5EC in tank mixtures with the herbicides listed in Table 14 will provide burndown control of the weeds listed below.

**Table 15: Weeds Controlled by Burndown Rates of Boundary 6.5EC Tank Mixtures**

Boundary 6.5EC +									
Weeds Controlled	2,4-D LVE	Poast Plus + 2,4-D LVE	Select + 2,4-D LVE	Fusion + 2,4-D LVE	Touchdown/ Roundup	Touchdown/ Roundup+ 2,4-D LVE	Gramoxone SL 2.0	Gramoxone SL 2.0 + 2,4-D LVE	
<b>Annual Grasses</b>	<b>Maximum Burndown Height (Inches)</b>								
Barley		-	-	-		8		4-6	
Barnyardgrass		2-3	3-4	-		6		4-6	
Crabgrass spp.		2-3	-	-		6		4-6	
Foxtail spp.		2-3	3-4	2-6		8		4-6	
Johnsongrass, seedling		2-3	-	-		8		4-6	
Panicum, fall		2-3	3	2-6		6		4-6	
Sandbur, field		-	-	-		8		4-6	
Shattercane		2-3	-	-		8		4-6	
Wheat, volunteer		-	-	-		6		4-6	
Witchgrass		2-3	-	-		6		4-6	
	Does not control these species								
<b>Broadleaves</b>		<b>Maximum Burndown Height (Inches)</b>							
Buffalobur			-			6	6	4-6	4-6
Chickweed, common			6			6	6	4-6	4-6
Cocklebur, common			6			6	8	4-6	4-6
Dandelion, common			6 dia. <sup>1</sup>			2 dia. <sup>2</sup>	6 dia. <sup>1</sup>	4 dia. <sup>3</sup>	6 dia. <sup>1</sup>
Henbit			4			4	4	4-6	4-6
Horseweed/marestail			6 <sup>1</sup>			4 <sup>2</sup>	6	3	6 <sup>1</sup>
Jimsonweed			6			6	6	4-6	4-6
Kochia			4 <sup>1</sup>			4	4	4	4
Ladysthumb		6			6	8	4-6	4-6	
Lambsquarters, common		6			6	8	4-6	4-6	
Lettuce, prickly		6			4	6	4-6	4-6	
Mallow, Venice		6			6	6	4-6	4-6	
Morningglory spp.		6			2	4	2	4	
Mustard spp.		6			6	8	4-6	4-6	
Pennycress, field		6			6	6	4-6	4-6	
Pigweed spp. (annual)		6			6	8	4-6	4-6	
Ragweed, common		6			6 <sup>2</sup>	8	4-6	4-6	
Ragweed, giant		6 <sup>1</sup>			4 <sup>2</sup>	6	4	6	
Shepherd's-purse		6			6	6	4-6	4-6	
Sida, prickly		6			4	4	4	4	
Smartweed, Pennsylvania		6			6	8	4-6	4-6	
Sunflower, common		6			6	6	4-6	4-6	
Thistle, Russian		4 <sup>1</sup>			2-4 <sup>2</sup>	4	4	4-6	
Velvetleaf		6			6	8	4-6	4-6	
Waterhemp spp.		6			6	8	4-6	4-6	

<sup>1</sup>Use 2,4-D LVE at 0.5 lb. ai/A.

<sup>2</sup>Use a minimum of 0.75 lb. ai/A of Touchdown or Roundup.

<sup>3</sup>Suppression only.

### Boundary 6.5EC Use Rates For Reduced and No-Till Systems

#### Preplant Surface Application

Boundary 6.5EC may be used in reduced-till and no-till systems. Applications may be made up to 30 days before planting or after planting, but before soybean emergence. Residual herbicides such as Canopy, FirstRate, Scepter, Command, Python, and Prowl may be tank mixed for additional weed control. If weeds are present at time of application, burndown herbicides may be added to the tank mixes (see **Burndown Weed Control** section). Refer to the tank mix product labels for specific rates and use directions.

**Table 16: Boundary 6.5EC Use Rates for Reduced-Till and No-Till Systems (Broadcast Rates)**

Soil Texture	Boundary 6.5EC (Pt./A <sup>1</sup> )
<b>COARSE</b> <sup>2</sup> (Loamy sand, sandy loam)	1.2-2.1
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	2.1-3.0
<b>FINE</b> (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	2.7-3.6

<sup>1</sup>Use low rate range for low residue level or soils with less than 3% organic matter. Use the higher rate range for high residue level or soils with greater than 3% organic matter.

<sup>2</sup>Do not use on sand soils. On coarse-textured soils, do not use on loamy sand soils with less than 2% organic matter.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

#### Boundary 6.5EC Sequential Application

An early preplant (surface-applied or shallow incorporated) application of Boundary 6.5EC, followed by a preemergence application of Boundary 6.5EC after planting but before soybean emergence, will provide more consistent control of broadleaf and grass weeds than a single application.

A sequential application will decrease the need for tillage and/or burndown herbicides for the control of existing vegetation before planting, while providing residual control of weeds after planting.

#### Application

An early preplant application may be made 15-30 days before planting soybeans. Follow this application with a preemergence overlay application of Boundary 6.5EC after planting but before crop emergence. Follow directions on this label for sequential applications from 0-14 days before planting.

Where a rate range is recommended, the higher rates should be used (a) in fields with a history of severe weed pressure, (b) when the time between early preplant and preemergence overlay applications approaches the maximum 30 days, (c) when the organic matter content of the soil is over 3%, and/or (d) when heavy crop residues are present on the soil surface.

When weeds exceed 1-1.5 inches in height or diameter at application, use a burndown herbicide, such as Touchdown, Roundup, Gramoxone SL 2.0, or 2,4-D LVE.

**Weeds Controlled:** In addition to weeds controlled by Boundary 6.5EC alone, the sequential application improves control of the following annual broadleaf weeds: buffalobur, cocklebur, common ragweed, velvetleaf, and sunflower.

**Table 17: Sequential Application (Broadcast Rates)**

Soil Texture <sup>1</sup>	Early Preplant Application Boundary 6.5EC (Pt./A)	- Followed By -	Preemergence Overlay Application Boundary 6.5EC (Pt./A)
<b>COARSE</b> <sup>1</sup> (Sand, loamy sand, sandy loam)	1.2-1.8	- followed by -	0.3-0.9
<b>MEDIUM</b> (Loam, silt loam, sandy clay loam, silt, sandy clay)	1.5-2.1	- followed by -	0.6-1.2
<b>FINE</b> (Silty clay loam <sup>3</sup> , clay loam, silty clay, clay)	1.8-2.4	- followed by -	0.9-1.5

<sup>1</sup>On coarse-textured soils, do not use on sand soils with less than 1% organic matter. However, on coarse-textured soils with a calcareous surface area or a pH of 7.5 or higher, do not use on sand soils with less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1% organic matter.

<sup>2</sup>Total not to exceed 3.9 pints of Boundary 6.5EC per acre per use season.

<sup>3</sup>Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Boundary 6.5EC, treat this soil as "fine-textured."

**Postemergence Directed Application (AR, LA, MO – Bootheel only, MS, TN)**

Boundary 6.5EC can be applied postemergence directed to soybeans to provide residual control of weeds that emerge after crop emergence in the states of Arkansas, Louisiana, Missouri - Bootheel only, Mississippi and Tennessee. A postemergence directed spray of Boundary 6.5EC can be applied to soybeans in addition to a preemergence or preplant application of Boundary 6.5EC according to label directions. The total amount of Boundary 6.5EC applied must not exceed 3.9 pints per acre per season.

See the table below for Boundary 6.5EC postemergence directed rates according to soil type and organic matter level.

**Table 18: Boundary 6.5EC Rates for Postemergence Directed Application (Broadcast Rates)**

Soil Texture	Broadcast Rate Per Acre	
	0.5% to less than 3% organic matter	3% organic matter or greater
<b>Coarse</b> Loamy sand, sandy loam (over 2% organic matter)	1.3 pt.	1.5 pt.
<b>Medium</b>	1.5-2.0 pt.	2 pt.
<b>Fine</b>	2 pt.	2 pt.
<b>Mississippi Delta only</b> Silty clay, clay	2 pt.	2 pt.

A postemergence directed application of Boundary will provide residual preemergence weed control of the weeds listed in Table 5.

Apply in 10 to 20 gallons of water per acre in a 6 to 8 inch band on each side of the row when soybeans are at least 8 inches tall. Do not allow the directed spray to contact more than the lower 1/4 to 1/3 of soybean plants. Soybean leaves contacted by the spray will be killed or severely injured. Do not apply directly to soybeans or serious injury will occur.

*Precautions: If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.*

**Post-Directed Application Tank Mixes - Glyphosate Tolerant Soybeans Only**

Postemergence directed applications of Boundary 6.5EC can be tank mixed with glyphosate such as Touchdown or Roundup brands in glyphosate-tolerant soybeans only. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

**Postemergence Directed Applications – Restrictions**

- Do not exceed a total of 3.9 pints per acre per season of Boundary 6.5EC.
- Do not graze or feed treated soybean forage, hay, or straw to livestock.
- Do not apply within 90 days of soybean harvest.

- Boundary 6.5EC cannot be applied to sandy loam or loamy sand soils with less than 2% organic matter.

## **STORAGE AND DISPOSAL**

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

### **Pesticide Storage**

Store in a cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to **Precautionary Statements** on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

### **Pesticide Disposal**

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

### **Container Handling [less than 5 gallons]**

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

### **Container Handling [Bulk/Mini-Bulk]**

Refillable container. Refill this container with Boundary 6.5EC Herbicide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill

the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities. If the container is damaged, leaking or obsolete, contact Syngenta Crop Protection, LLC at 1-800-888-8372.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to contain spills, leaks, and other accidents to prevent further exposure of facilities and equipment. Absorb spilled product with absorbing materials and dispose of in an approved waste disposal facility. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

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For non-emergency (e.g., current product information), call  
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:  
Syngenta Crop Protection, LLC  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

SCP 1162A



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[BASE LABEL]

**GROUP 5 | 15 HERBICIDES**

Sale, use and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

**Boundary® 6.5EC Herbicide**

For control of certain grasses and broadleaf weeds in potatoes and soybeans

Active Ingredients:	
S-metolachlor*:	58.2%
Metribuzin**:	13.8%
<hr/>	
Other Ingredients*:	28.0%
Total:	100.0%

\*CAS No. 87392-12-9

\*\*CAS No. 21087-64-9

Contains 5.25 lbs. of S-metolachlor and 1.25 lbs. of metribuzin per gallon.

\*Contains approximately 14% petroleum distillates.

See additional precautionary statements and directions for use in attached booklet.

**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. 100-1162

EPA Est.

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Manufactured for:  
 Syngenta Crop Protection, LLC  
 P. O. Box 18300  
 Greensboro, North Carolina 27419-8300

SCP 1162A

2.5 gallons  
Net Contents

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**KEEP OUT OF REACH OF CHILDREN.**

# CAUTION

## Precautionary Statements

### Hazards to Humans and Domestic Animals

Caution. Contains petroleum distillate. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

<b>FIRST AID</b>	
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<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 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>
<b>NOTE TO PHYSICIAN</b>	
May pose an aspiration pneumonia hazard. Contains petroleum distillate.	
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>	

**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.

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**Ground Water Advisory:** S-metolachlor is known to leach through soil into ground water under certain conditions as a result of label use. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

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

**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 and/or irrigation equipment.

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 mixed/loaded or used within 50 ft. of all wells, including abandoned wells, drainage wells, and sink holes.\*

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

**Aerial Drift Management Requirements:** Do not apply this product by air, unless the supplemental labeling on Aerial Drift Management in attached booklet is followed.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross-contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If container is leaking, invert to prevent leakage. If the container is leaking or material is spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to **Precautionary Statements** on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

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

**Container Handling:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to contain spills, leaks, and other accidents to prevent further exposure of facilities and equipment. Absorb spilled product with absorbing materials and dispose of in an approved waste disposal facility. 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 Boundary 6.5EC label booklet. See Boundary 6.5EC label booklet for pesticide disposal instructions.

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**SUPPLEMENTAL LABELING**

**Syngenta Crop Protection LLC**  
P. O. Box 18300  
Greensboro, North Carolina 27419-8300

**GROUP 14 HERBICIDE**

**Boundary® 6.5EC Herbicide**

**This supplemental label expires on May 15, 2016 and must not be used or distributed after this date.**

Active Ingredients:	
S-metolachlor*.....	58.2%
Metribuzin**.....	13.8%
Other Ingredients*.....	28.0%
<b>Total:</b>	<b>100.0%</b>

\*CAS No. 87392-12-9

\*\*CAS No. 21087-64-9

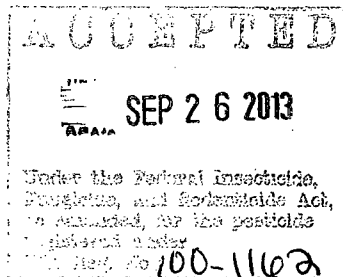
Contains 5.25 lbs. of S-metolachlor and 1.25 lbs. of metribuzin per gallon.

\*Contains approximately 14% petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

EPA Reg. 100-1162



All applicable directions, restrictions and precautions on the EPA-registered label are to be followed. Before using Boundary 6.5EC Herbicide as permitted according to this supplemental labeling, read and follow all applicable directions, restrictions, and precautions on the EPA registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**syngenta**

### DIRECTIONS FOR USE

Table 1: Crop Rotation Intervals<sup>1,3</sup>

Rotational Interval After Application of Boundary 6.5EC <sup>2</sup>				
4 months	4½ Months	8 Months	12 Months	18 Months
Corn	Winter Barley Winter Wheat Alfalfa	Peas Rice Spring Barley Spring Wheat	Asparagus Cotton Forage Grasses Lentils Sainfoin Sugarcane Tomatoes Other Crops not listed (except root crops)	Onions Sugar Beets and Other Root Crops

<sup>1</sup>Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.

<sup>2</sup>Crop rotation recommendations do not include restrictions for the tank mix partner. Refer to the label of the other product for additional restrictions.

<sup>3</sup>Refer to the specific crop use sections for additional crop rotation precautions.

#### Postemergence Directed Application (AR, LA, MO – Bootheel only, MS, TN)

Boundary 6.5EC can be applied postemergence directed to soybeans to provide residual control of weeds that emerge after crop emergence in the states of Arkansas, Louisiana, Missouri - Bootheel only, Mississippi and Tennessee. A postemergence directed spray of Boundary 6.5EC can be applied to soybeans in addition to a preemergence or preplant application of Boundary 6.5EC according to label directions. The total amount of Boundary 6.5EC applied must not exceed 3.9 pints per acre per season.

See the table below for Boundary 6.5EC postemergence directed rates according to soil type and organic matter level.

4/7/98

Soil Texture	Broadcast Rate Per Acre	
	0.5% to less than 3% organic matter	3% organic matter or greater
<b>Coarse</b> Loamy sand, sandy loam (over 2% organic matter)	1.3 pt.	1.5 pt.
<b>Medium</b>	1.5-2.0 pt.	2 pt.
<b>Fine</b>	2 pt.	2 pt.
<b>Mississippi Delta only</b> Silty clay, clay	2 pt.	2 pt.

A postemergence directed application of Boundary will provide residual preemergence weed control of the weeds listed in Table 5.

Apply in 10 to 20 gallons of water per acre in a 6 to 8 inch band on each side of the row when soybeans are at least 8 inches tall. Do not allow the directed spray to contact more than the lower 1/4 to 1/3 of soybean plants. Soybean leaves contacted by the spray will be killed or severely injured. Do not apply directly to soybeans or serious injury will occur.

*Precautions: If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.*

**Post-Directed Application Tank Mixes - Glyphosate Tolerant Soybeans Only**

Postemergence directed applications of Boundary 6.5EC can be tank mixed with glyphosate such as Touchdown or Roundup brands in glyphosate-tolerant soybeans only. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

**Postemergence Directed Applications – Restrictions**

- Do not exceed a total of 3.9 pints per acre per season of Boundary 6.5EC.
- Do not graze or feed treated soybean forage, hay, or straw to livestock.
- Do not apply within 90 days of soybean harvest.
- Boundary 6.5EC cannot be applied to sandy loam or loamy sand soils with less than 2% organic matter.

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