SULFENTRAZONE GROUP 14 HERBICIDE
CLORANSULAM-METHYL GROUP 2 HERBICIDE



Intended For Use by Individuals/Firms Certified as Licensed Pesticide Applicators.

ACTIVE INGREDIENTS:

Sulfentrazone\*

Cloransulam-methyl\*

OTHER INGREDIENTS:

\* This product contains 0.7 pounds of active ingredient per pound of product (0.62 pounds a.i. of sulfentrazone and 0.08 pounds a.i. of cloransulam-methyl)

EPA Reg. No.: 93930-31

# KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See below for additional Precautionary Statements.

FIRST AID		
If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> </ul>	
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
If on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>	
HOT LINE NUMBER		
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You		

For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

may also contact SafetyCall at 1-984-465-4791 for emergency medical treatment information.



# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Protective eyewear
- Long-sleeved shirt and long pants,
- Waterproof gloves,
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **USER SAFETY RECOMMENDATIONS**

#### Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling the product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

# **Groundwater Advisory**

This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Do not use on coarse soils classified as sand which have less than 1% organic matter.

# **Surface Water Advisory**

Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, 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 over-lying tile drainage systems that drain to surface waters.

#### NON-TARGET ORGANISM ADVISORY STATEMENT

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

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

#### RESISTANCE MANAGEMENT

For resistance management, please note that **Arbitron FR** contains both a Group 2 and a Group 14 herbicide. Any weed population may contain plants naturally resistant to Group 2 and/or Group 14 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of **Arbitron FR** or other Group 2 and Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weeds species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Suspected herbicide-resistant weeds may be identified by these indicators:
   o Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- o A spreading patch of non-controlled plants of a particular weed species; and o Surviving plants mixed with controlled individuals of the same species
- If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Avalaire, LLC representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

# **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Failure to follow the Directions For use and Precautions on this label may result in plant injury or poor disease control.

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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Protective evewear
- Coveralls
- Waterproof gloves
- Shoes plus socks

# PRODUCT INFORMATION

Arbitron FR is for preemergence control of broadleaf and grass weeds in soybeans only. The mode of action of Arbitron FR involves uptake by weed roots and shoots. Preemergence and preplant incorporated applications of Arbitron FR require rainfall or irrigation to activate the herbicide. The amount of rainfall or irrigation required for activation following application depends on existing soil moisture, organic matter content and soil texture. If adequate moisture (1/2" to 1") is not received within 7 to 10 days after the Arbitron FR treatment, a shallow cultivation may be needed to obtain desired weed control. When sufficient moisture is received after dry conditions, Arbitron FR will provide control of susceptible germinating weeds.

**Arbitron FR** exhibits excellent crop safety. Poor growing conditions, such as excessive moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling vigor. Under these conditions, the active ingredients in **Arbitron FR**, like other soil-applied herbicides, can contribute to crop response.

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with **Arbitron FR**.

#### IMPORTANT PRECAUTIONS

- 1. Back to back application of ALS or ALS containing herbicides can occasionally result in residual herbicide stacking and potential crop injury. Applicator and grower are responsible and should be aware of previous herbicide use and potential interaction it may have with **Arbitron FR** application.
- 2. Ensure the seed furrow is closed and the seed covered on acres treated with **Arbitron FR**.
- 3. Soybean stunting may occur if excessive rainfall occurs after application but before soybeans emerge. Injury is more prevalent under poor drainage or compacted conditions or when soil is saturated for long periods of time. Soybeans outgrow stunting once favorable growing conditions return.
- Application of Arbitron FR when there are visible signs of cracking due to soybean emergence may result in serious crop injury such as but not limited to stand loss.
- 5. Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, or drought may weaken soybean seedlings and increase the possibility of crop injury.
- 6. When tank mixing, follow the most restrictive use rates and precautions of the mixing partners.

#### APPLICATION INFORMATION

# DO NOT APPLY TO CROPS OTHER THAN SOYBEANS. APPLY WITH GROUND SPRAYERS ONLY

Use a standard low pressure herbicide boom sprayer equipped with suitable nozzles and screens. Apply uniformly using properly calibrated nozzles and screens and strainers no finer than 50 mesh.

Continuous agitation during application is required. Avoid swath overlaps. Shut off spray booms while turning, slowing or stopping, as over application may result. Do not allow **Arbitron FR** spray mixtures to sit overnight as settling of product and difficulty of re-suspending may occur.

To avoid injury to sensitive crops, spray equipment used for **Arbitron FR** applications must be drained and thoroughly cleaned with water plus ammonia before being used to apply other products. See **Spray Clean-out** section.

Avoid all direct, and/or indirect spray contact with non-target plants. Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure.

#### **Runoff and Wind Erosion Precautions:**

Do not apply under conditions which favor runoff or wind erosion of soil containing Arbitron FR to non-target areas. To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow the soil surface to be settled by rainfall or irrigation.
- Avoid applications to soils that are saturated with water.
- Avoid use of tail water from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

# **SPRAY DRIFT**

# **Ground Applications:**

- For boom spraying, the maximum release height must be 30 inches from the soil.
- Ground applicators must use a minimum finished spray volume of 10 gallons per acre.
- When sulfentrazone is tank mixed with a contact burndown herbicide, use a minimum spray volume of 15 gallons per acre.
- Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE\* standard S-572.
- Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.
- Select medium to very coarse droplet size when sulfentrazone is used postemergence with a contact burndown herbicide.
- Do not apply as spray droplets smaller than medium to coarse (defined by the ASABE\* standard).
- Applicators may spray only when wind speed is between 3 and 10 mph.

#### SPRAY DRIFT REDUCTION ADVISORIES

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

# 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 for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under



unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

# **Controlling Spray Droplet Size**

**Volume** - Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

**Pressure** - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure. Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

**Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

**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 for applications.

**Application Height** - Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

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

Wind - Drift potential is lowest between wind speeds of 3 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 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 may potentially 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 low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas** - The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

# Mixing Instructions and Loading Instructions Proper Handling Instructions:

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet 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 rainwater 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 specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Do not apply this product through any type of irrigation system. Do not use flood irrigation to apply or incorporate this product.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

# Arbitron FR Applied Alone

Select the proper **Arbitron FR** application rate from the following **Timing and Method of Application** section of this label. Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of **Arbitron FR** for acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Apply the **Arbitron FR** spray mixture immediately after mixing. Do not store mixture.

# **Arbitron FR Applied in Tank Mix Combination**

Select the proper Arbitron FR application rate from Timing and Method of **Application** section of label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. To ensure product compatibility, a jar test should be conducted before large volume mixing. Provided the iar test indicates the mixture is compatible, prepare the tank mixture as follows. Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of Arbitron FR for the acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. Next add the recommended amount(s) of the additional tank mix product(s) in the following order: first dry formulations (e.g., wettable powders, dry flowables), next liquid suspensions (e.g., flowables) and finally liquids (e.g., EC's). Allow time for complete mixing and dispersion after each addition, adding water, as necessary. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Use Arbitron FR tank mixtures immediately after mixing. Do not store tank mixtures.



# **Fertilizer Spray Mixtures**

Applications of **Arbitron FR** alone, or with recommended tank mixtures, in conjunction with fertilizer solutions may be used unless use directions specifically state otherwise. Small quantities should be tested for compatibility by the following procedure before mixing in full spray tank quantities.

- 1. Put 1 pint of fertilizer solution in a quart jar.
- 2. Add the appropriate amount of herbicide based on the table below. If more than one product is to be used, add each separately using the following sequence: dry formulations (e.g., wettable powders, dry flowables) first, liquid suspensions (e.g., flowables) next and finally liquids (e.g., EC's).

Herbicide Type	Herbicide Field Use Rate	Amount Herbicide Added Per Pint
Wettable Powder or	0.5 pound	0.75 teaspoon
Dry Flowable	1.0 pound	1.50 teaspoons
	2.0 pounds	3.00 teaspoons
	3.0 pounds	4.50 teaspoons
Emulsified Concentrate	1.0 pint	0.5 teaspoon
Liquid Flowables	1.0 quart	1.0 teaspoon
	2.0 quarts	2.0 teaspoons
	3.0 quarts	3.0 teaspoons

<sup>\*</sup> Based on a spray volume of 25 gal. per acre. For lower or higher spray volumes, adjust fluid fertilizer quantity accordingly.

- 3. Close jar and shake well.
- 4. Watch mixture for several seconds, again after 5 minutes and again after 30 minutes. If herbicide/fertilizer combination remains mixed or can be remixed readily (i.e., does not permanently separate, foam, gel or become lumpy), the mixture is compatible and can be mixed in full volumes and sprayed. If the mixture is compatible, prepare spray by adding fertilizer solution to the tank first, then follow directions noted below.

# Arbitron FR Applied Alone with Liquid Fertilizer

In order to add **Arbitron FR** to a liquid fertilizer carrier, **Arbitron FR** must be premixed in a slurry of product and clear water.

Fill the spray tank one-half full with fertilizer solution. With agitator operating, add the **Arbitron FR** slurry to the spray tank.

Use a minimum of one gallon of water for each container of **Arbitron FR**. Stir until completely dissolved. Then add slurry to the spray tank through a 20 - 35 mesh screen. Rinse container used for pre-mixing and add rinsate to the spray tank. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use **Arbitron FR** spray mixture immediately after mixing. Do not store mixture.

# Arbitron FR Applied in Tank Mix Combinations with Fertilizer

Fill the spray tank one-half full with fertilizer solution. With the agitator operating, add a slurry of **Arbitron FR** as described in the preceding paragraph. Next dilute the individual tank mix partners with sufficient water to form a free flowing dispersion, then add to the spray tank of fertilizer. While maintaining agitation, add the other products using the following order: slurry of dry formulations (wettable powders, dry flowables) first, diluted liquid formulations (EC's, flowables) second. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use **Arbitron FR** tank mixtures immediately after mixing. Do not store tank mixtures.

# SPRAY EQUIPMENT CLEAN-OUT

After spraying Arbitron FR and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

- 1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. Thoroughly flush sprayer hoses, boom and nozzles with clean water.
- 2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
- Convenient and through cleaning of the sprayer can be achieved if the cleaning solution is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
- 4. Before using the sprayer, drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately with the detergent or ammonia solution.
- Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other crops.

Should small quantities of **Arbitron FR** remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. Avalaire, LLC accepts no liability for any effects due to inadequately cleaned equipment.

#### **ROTATIONAL CROP GUIDELINES**

Shown below are the minimum intervals in months from the time of **Arbitron FR** application until **Arbitron FR** treated soil may be replanted with the crops listed. Cover crops for soil health and erosion control can be planted at any time after an application of **Arbitron FR**, but do not use for food or feed. Residual activity of **Arbitron FR** may result in injury to some cover crop species if planted to soon following application. Consult your local University extension service for cover crop sensitivity to **Arbitron FR**. When **Arbitron FR** is tank mixed with other herbicide(s), refer to all the labels for re-cropping instructions, following the intervals that are the most restrictive. For crops not listed, the interval is 30 months and a successful field bioassay.

Crop	Interval (months)
Alfalfa	12
Barley	12
Canola	24
Corn, Field*	18 or 10
Corn, Pop*	18 or 10
Corn, Seed*	18 or 10
Corn, Sweet	18 or 10
Cotton	18 or 12 <sup>†</sup>
Dry shelled beans and peas	9
Lima beans	12
Oats	12
Peanuts	12

(continued)



Crop	Interval (months)
Potatoes	18
Rice	10
Rye	12
Snap beans	12
Sorghum	12
Soybeans	Anytime
Succulent peas	9
Sugar beets**	30
Sunflower**	30
Tobacco***	30
Wheat	4

<sup>\*</sup>Corn (including field corn, popcorn and seed corn): Observe an 18-month rotational interval if 6.45 - 8.0 oz. of **Arbitron FR** is applied to soils of 1.5% organic matter or less, and pH is above 7.

<u>Hybrid Seed Production</u>: Corn inbred lines grown for hybrid seed production may be injured the growing season following an application of **Arbitron FR**. Inbred lines should be thoroughly tested for crop tolerance before rotating to production scale acreages. Avalaire, LLC will not accept responsibility for any crop injury on field corn grown for seed following an application of **Arbitron FR**.

\*\* These crops require a 30-month rotational interval and a successful field bioassay.

† Cotton may be planted after 12 months where **Arbitron FR** was applied at rates 5 oz/acre or less and meets the following conditions:

- Medium and fine soils
- Ph <7.2
- Rainfall or irrigation must exceed 15" after application of Arbitron FR

#### REPLANTING INSTRUCTIONS

If the initial planting of soybeans fails to produce a uniform stand, soybeans may be replanted in fields treated with **Arbitron FR** alone. Do not retreat fields with a second application of **Arbitron FR**. When tank mixing with a labeled product, refer to the replant instructions for that product. Do not replant treated fields with any crop at intervals that are inconsistent with the **ROTATIONAL CROP GUIDELINES** on the **Arbitron FR** label. Where a tank mix is used, refer to the product's labels for any additional replant instructions.

# **SOYBEANS (Conventional and GMO)**

# **Timing and Method Application:**

**Arbitron FR** may be used alone or in tank mixture combinations for the control of the listed weeds in conventional or GMO soybean varieties.

#### Standard Rate Table 1.

Soil Organic Matter*	Arbitron FR (Dry Ounces		gredient Use Rates e Ingredient Per Acre)
Matter	per Acre)**	Sulfentrazone	Cloransulam-methyl
3% or less	6.45	0.25	0.032
Greater than 3%	8.00	0.31	0.040

<sup>\*</sup>Do not apply **Arbitron FR** to soils classified as sand with less than 1% organic matter

# **Preplant Incorporated Application**

Apply **Arbitron FR** alone or in tank mix combination with other herbicides registered for preplant incorporated application to soybeans. Incorporate the herbicide(s) into the top 1 to 3 inches of the final seedbed using equipment that provides thorough soil mixing. When **Arbitron FR** is applied in tank mix combination with other herbicide(s), follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

# **Preplant Surface Application**

Apply **Arbitron FR** alone or in tank mix combination with other herbicides registered for preplant soil surface application to soybeans. If applied in tank mix combination, follow use instructions, including application rates (note: apply 1/2 of the maximum application rate for suppression of weeds in glyphosate-tolerant soybeans, maintaining control with sequential application(s) of registered postemergence herbicides), precautions and restrictions of each product used in the tank mixture.

# Preemergence Application

Apply at planting time or within 3 days after planting. **Arbitron FR** may be applied alone or in tank mix combination with other herbicides registered for preemergence application to soybeans. When applied in tank mix combination, follow applicable use instructions, including application rates (note: apply 1/2 of the maximum application rate for suppression of weeds in glyphosate-tolerant soybeans, maintaining control with sequential application(s) of registered postemergence herbicides). Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Apply before planting, at planting time or prior to seed germination. Properly closed seed furrows are necessary when applying at planting time of before seed germination. Do not apply later than 3 days after planting (or after seed germination), as crop injury may result.



<sup>\*\*\*</sup> Transplanted tobacco may be planted 10 months after application of a maximum application rate of ounces per acre of **Arbitron FR**. Tobacco in seedbed nurseries may be replanted 18 months after applications of 3.0 ounces per acre of **Arbitron FR** and following a successful field bioassay. A rotational interval of 30 months and a successful field bioassay is required for all applications of **Arbitron FR** greater than 3.0 ounces per acre.

<sup>\*\*</sup> Maximum application rates: See Preplant Surface and Preemergence Application below for specific recommendations.

# **Weeds Controlled**

When used as directed above, **Arbitron FR** will provide control or suppression of the following broadleaf weeds and grasses.

	Scientific Name
Broadleaves	
Amaranth, Palmer	Amaranthus, Palmer
Amaranth, spiny	Amaranthus, spinosus
Anoda, spurred	Anoda cristata
Beggarweed, Florida	Desmondiom tortuosum
Carpetweed	Mollugo verticillata
Cocklebur, common	Xanthium Pensylvanicum
Copperleaf, Hophornbeam	Acalypha ostryeafolia
Croton, tropic	Croton glandulosus
Daisy, American	Eclipta alba
Dayflower, common	Commelina communis
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy	Physalis heterophylla
Groundcherry, cutleaf	Physalis angulata
Horseweed (Marestail)**	Hippuris vulgaris
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
Ladysthumb	Polygonum persicaria
Lambsquarters, common	Chenopodium album
Mallow, Venice	Hibiscus trionum
Mexicanweed	Caperonia castanaefolia
Morningglory, entireleaf	Ipomea hederacea integriusc
Morningglory, ivyleaf	Ipomea hederacea hederacea
Morningglory, palmleaf	Ipomea Wrightii
Morningglory, pitted*	Ipomea, lacunosa
Morningglory, purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Morningglory, smallflower	Jacquemontia tamnifolia
Morningglory, tall	Ipomea, purpurea
Mustard, wild	Brassica kaber
Nightshade, Eastern black	Solanum americanum
Nightshade, hairy	Solanum sarrachoides
Nightshade, silverleaf	Solanum elaeagnifolicum

(cont	inu	ed)

Common Name	Scientific Name
Broadleaves (continued)	
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Pigweed, tumble	Amaranthus albus
Poorjoe	Diodia teres
Purslane, common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Ragweed, common**	Ambrosia artemisiifolia
Ragweed, giant**	Ambrosia trifida
Senna, coffee	Cassia occidentalis
Teaweed	Sida, prickly
Smartweed, PA	Polygonum pensylvanicum
Smellmelon	Cucumis melo
Spurge, spotted	Euphorbia maculata
Starbur, bristly	Acanthospermum hispidum
Sunflower, common	Helianthus annuus
Thistle, Russian	Salsola kali
Velvetleaf	Abutilon theophrasti
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos
Grasses	
Barnyardgrass*	Echinochloa crus-galli
Broadleaf signalgrass	Brachiaria platyphylla
Crabgrass, large	Digitaria sanguinalis
Crabgrass, smooth	Digitaria ischaemum
Craugiass, silloutii	
Crabgrass, snuthern*	Digitaria ciliaris
	-
Crabgrass, southern*	Digitaria ciliaris
Crabgrass, southern* Crowfootgrass*	Digitaria ciliaris  Dactyloctenium aegyptium
Crabgrass, southern* Crowfootgrass* Foxtail, giant*	Digitaria ciliaris  Dactyloctenium aegyptium  Setaria faberi



<sup>\*</sup> Provides suppression or partial control only
\*\*Will not control ALS resistant biotypes of these weed species

# Limited Residual Rates for Planned Sequential Application Program in Soybeans

Use rates in **Table 2** are to be used in conjunction with an effective planned POST herbicide program; **Arbitron FR** at these reduced rates will provide early season control or suppression to reduce early season weed competition. If resistance with the POST herbicide is documented in your area, use rates in **Table 1**.

Apply before planting, at planting time or prior to seed germination. Properly closed seed furrows are necessary when applying at planting time of before seed germination. Recommended postemergence treatments may include any product or combination of products labeled for use.

Table 2. Limited Residual Rate Table for Planned Sequential Application Program in Soybeans

Soil Organic Matter*	Arbitron FR (Dry Ounces		gredient Use Rates e Ingredient Per Acre)
Matter	per Acre)	Sulfentrazone	Cloransulam-methyl
3% or less	3.00 - 5.00	0.116 - 0.193	0.015 - 0.025
Greater than 3%	4.00 - 6.00	0.155 - 0.233	0.020 - 0.030

<sup>\*</sup> Do not apply **Arbitron FR** to soils classified as sand with less than 1% organic

# **Preplant Burndown Application**

Arbitron FR, used at 6.45 - 8.0 oz./acre as in Standard Rate Table 1 above, aids in the burndown of weeds listed below, when applied as follows. Arbitron FR can provide for increased burndown activity on emerged weeds in no-till applications, but is not intended to replace part or all of an appropriate preplant burndown program. For control of the weeds in the Weeds Controlled table in no-till/minimum till fields, Arbitron FR must be tank-mixed or used in combination with a full burndown program. This may include 2,4-D alone or in combination with carfentrazone-ethyl, dicamba, glyphosate, glufosinate, paraquat, or other appropriate burndown herbicides in tank-mixes at their appropriate rate for the size and species of weeds present. Reduced rates of Arbitron FR and/or the corresponding burndown partner herbicides can result in weed escapes and unsatisfactory performance.

Apply a minimum of fifteen gallons per acre finished spray volume. Thorough coverage is essential. Use a non-ionic surfactant (NIS) having at least 80% active ingredient strength at 0.125 - 0.25% v/v (1 - 2 pints per 100 gallons of spray solution) plus ammonium sulfate (AMS) at 2.5% v/v. Crop oil concentrate (COC) and Methylated Seed Oil (MSO) at 1.2% v/v plus ammonium sulfate may be used. Burndown results may be slowed or reduced when the growth of the weeds is affected by unusual environmental factors just prior to or after application such as especially cool or widely fluctuating day and night air temperatures, drought, heat stress, or waterlogged soils.

#### Weeds Controlled

When used as directed for burndown, **Arbitron FR** will aid in the control or suppression of the following broadleaf weeds up to 3" tall.

Common Name	Scientific Name
Broadleaves	
Cocklebur, common	Xanthium Pensylvanicum
Horseweed (Marestail)**	Hippuris vulgaris
Jimsonweed	Datura stramonium
Mallow, Venice	Hibiscus trionum
Morningglory, entireleaf	Ipomea hederacea tinegrisc
Morningglory, ivyleaf	Ipomea hederacea hederacea
Morningglory, palmleaf	Ipomea Wrightii
Morningglory, pitted*	Ipomea lacunosa
Morningglory, purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Morningglory, smallflower	Jacquemontia tamnifolia
Morningglory, tall	Ipomea purpurea
Ragweed, common**	Ambrosia artemisiifolia
Ragweed, giant**	Ambrosia trifida
Sicklepod	Cassia obtusifolia
Smartweed, PA	Polygonum pensylvanicum
Sunflower, common	Helianthus annuus
Velvetleaf*	Abutilon theophrasti

<sup>\*</sup> For Velvetleaf control, use 28% nitrogen (UAN) or AMS with NIS or COC.

#### **Precautions:**

Properly closed seed furrows are necessary when applying at planting time of before seed germination. Maintain spray tank agitation until the spray mixture is applied.

# **Restrictions:**

- Do not apply this product by air or through any type of irrigation system.
- Do not make more than one soil application per crop year.
- Do not apply more than 8.0 ounces (1.116 lbs./A sulfentrazone + 0.006 lbs./A cloransulam-methyl) of **Arbitron FR** per acre per year.
- Do not apply more than 0.055 lb. active ingredient (a.i.) per acre of cloransulammethyl from any source in a single growing season.
- Do not feed treated soybean forage or soybean hay to livestock.
- Do not harvest soybeans for 65 days after application of **Arbitron FR**.
- Do not apply **Arbitron FR** to soils classified as sand containing less than 1% organic matter.
- Do not drain or flush equipment on or near desirable trees or plants.
- Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.



<sup>\*\*</sup> **Arbitron FR** will not control ALS resistant biotypes of these weed species

# STORAGE AND DISPOSAL

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

Pesticide Storage: Store product in original container only, away from other pesticides, fertilizer, food or feed.

In Case of Spill: Avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and spills): (800) 424-9300. To Confine Spill: Dike surrounding area, sweep up spillage. Dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged package in a holding container. Identify contents per required hazardous waste labeling regulations.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

#### **CONTAINER HANDLING**

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

#### LIMITATION OF WARRANTY AND LIABILITY

IMPORTANT: READ BEFORE USE. Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of AVALAIRE, LLC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, AVALAIRE, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, neither AVALAIRE, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

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