

Specimen Label

METRIBUZIN	GROUP	5	HERBICIDE
SULFENTRAZONE	GROUP	14	HERBICIDE



Sonic[®] Boom

HERBICIDE

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**For Use on Asparagus, Field Corn (Fall application only)
Potato, Soybeans, Sugarcane, and Tomato (Transplants only);
also for use on Fallow or Eco-Fallow Cropland.**

Active Ingredients:	By Wt.
Metribuzin*	24.0%
Sulfentrazone**	12.0%
Other Ingredients	64.0%
Total:	100.0%

Sonic Boom contains 3.35 pounds active ingredient per gallon:
2.23 pounds metribuzin, and 1.12 pounds sulfentrazone

*4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one

**N-[2,4 dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide

FIRST AID

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies, call the poison control center at 800-222-1222. For other emergencies (i.e. leaks, spills, etc.) involving this product call 800-992-5994.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

EPA Reg. No. 70506-394-62719

Keep Out of Reach of Children

CAUTION

Caution. Harmful if swallowed, absorbed through the skin, or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing mists or vapors. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Wear long-sleeved shirt and long pants, socks, shoes, chemical-resistant (barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene \geq 14 mils, polyvinyl chloride \geq 14 mils, or viton \geq 14 mils) gloves. Remove and wash contaminated clothing before reuse.

Physical-Chemical Hazards

Do not mix or allow coming into contact with oxidizing agents. Hazardous chemical reaction may occur.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant 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, use detergent and hot water. Keep and wash PPE separate from other laundry.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR 170.607(d-e), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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

This pesticide contains sulfentrazone, which 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 washwaters or rinsate.

Groundwater Advisory

This product contains metribuzin, a chemical which can travel (seep or leach) through soil and can contaminate groundwater which may be used as drinking water. Metribuzin has been found in groundwater as a result of agricultural use. Do not apply metribuzin where the water table (groundwater) 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 groundwater.

Groundwater Advisory: This product contains ingredients which are known to leach through soil into groundwater under certain conditions as a result of label use. Use of this product 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 1.0% organic matter.**

Surface Water Advisory: Sonic Boom contains sulfentrazone, which can contaminate surface water through spray drift. Under some conditions, Sonic Boom 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.

DIRECTIONS FOR USE

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

RESTRICTIONS:

DO NOT apply this product through any type of irrigation system.

DO NOT apply 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 State or Tribe, consult the Agency responsible for pesticide regulation.

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

Resistance-Management Recommendations

For resistance management, please note that Sonic Boom contains both a Group 5 (metribuzin) and a Group 14 (sulfentrazone) herbicide. Any weed population may contain plants naturally resistant to Group 5 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 Sonic Boom or other Group 5 or 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 with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of noncontrolled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method 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.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for additional herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes. Report any incidence of non-performance of this product against a particular weed species to your local extension specialist, retailer or Corteva Agriscience, 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 weed seed production.

Best Management Practices

- Plant into weed-free fields and keep fields as weed-free as possible.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.

PRODUCT INFORMATION

Sonic Boom is a soluble concentrate formulation to be mixed with water and sprayed for selective pre-emergence or preplant incorporated weed control in labeled crops. When applied according to the instructions on this label, Sonic Boom will control listed broadleaf and sedge weeds and provide suppression of grasses.

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

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 pads 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 washwater, 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 100% 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 operation containment.

APPLICATION INSTRUCTIONS

MIXING

When using Sonic Boom, make sure the sprayer is completely clean, free of rust or corrosion which occurs from winter storage. Examine strainers and screens to be sure the sprayer is clean from previously used pesticides.

Keep any tank mix containing Sonic Boom agitated and spray out immediately. **DO NOT** allow tank mixes to stand for prolonged periods of time.

Utilize a boom and nozzle sprayers equipped with the appropriate nozzles, and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and soil coverage. Apply a minimum of 10 gallons of finished spray per acre. Be aware that overlaps and slower ground speeds while starting, stopping, or turning while spraying may result in excessive application and subsequent response.

Sprayer must be accurately calibrated before application. Check sprayer during application to be sure it is working properly.

Water or liquid fertilizer must be used as the carrier for Sonic Boom, when applied alone, or when tank mixed with other herbicides on any labeled crops. A jar test for compatibility of liquid fertilizer and Sonic Boom tank mix is recommended if the compatibility of the liquid fertilizer and Sonic Boom is unknown.

Continuous agitation during application is required. Avoid overlap. Shut off spray booms while turning, slowing, or stopping, as over application may result. **DO NOT** store the sprayer overnight or for any extended period of time with the Sonic Boom spray mixture remaining in the tank.

SPRAY DRIFT REDUCTION ADVISORY INFORMATION

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

Ground boom applications:

- When using ground application equipment, apply with nozzle height no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Aerial applications:

- Aerial application is allowed only when environmental conditions prohibit ground application.
- When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft. above the crop canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- When applying to crops via aerial application equipment, applicators must use 1/2 swath displacement upwind at the downwind edge of the field.

- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

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 outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Where states have more stringent regulations, they must be observed.
4. The applicator must be familiar with and take into account the information covered in the Spray Drift Reduction Advisory Information.

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

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

APPLICATION HEIGHT: Apply at a height not greater than 10 feet 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 downwind. Therefore, on the up and downward edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Increase swath adjustment distance with increasing drift potential (high wind, smaller drops, etc.).

WIND: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Due to variable wind direction and high inversion potential, avoid application below 2 mph. NOTE: Local terrain can influence wind patterns. Every applicator must 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: Do not apply 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: Apply Sonic Boom only 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).

OFF-TARGET MOVEMENT OF SONIC BOOM Drift of spray mixtures containing Sonic Boom must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration, and application practices will significantly diminish the risk of off-target spray drift. Sonic Boom can cause significant symptomatology by drift onto sensitive crops and other plants. This symptomatology may manifest initially as discreet, localized spots where contacted by Sonic Boom drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality are associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of Sonic Boom onto unintended crops or plants, irrespective of severity, constitutes misapplication of this product.

BAND TREATMENT APPLICATIONS

For band treatments, apply the broadcast equivalent rate and volume per treated acre. To determine these:

$$\frac{\text{Band Width (Inches)}}{\text{Row Width (Inches)}} \times \frac{\text{Broadcast Rate}}{\text{Per Acre}} = \text{Band Rate}$$

$$\frac{\text{Band Width (Inches)}}{\text{Row Width (Inches)}} \times \frac{\text{Broadcast Volume}}{\text{Per Acre}} = \text{Band Volume}$$

MIXING & LOADING INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and 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.

Always ensure that equipment is clean and free of existing pesticide deposits before applying Sonic Boom. Follow the spray tank cleanout procedures specified on the label of the product previously applied before adding Sonic Boom to the tank.

For best results, fill spray tank with one half the volume of clean water or liquid fertilizer solution needed for the field to be treated. Start agitation system. When mixing Sonic Boom in a spray tank with anything other than clean water (fertilizer, previous herbicide mixtures, etc.), mix Sonic Boom in a separate container with clean water to create a slurry before adding it to the spray tank.

Slowly add the slurry to the spray tank. Carefully rinse the mixing container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Refer to rate tables for the proper application rate. Make sure, Sonic Boom is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicide(s) labeled for the same uses as Sonic Boom, conduct a jar test to ensure product compatibility before full-scale mixing. If the jar test indicates the mixture to be compatible, prepare the tank mixture as follows:

- Fill the spray tank one fourth full with clean water.
- With agitator operating, add the specified amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second.
- Add EC products followed by remaining adjuvants and/or carrier to tank as agitation continues and tank is filled with liquid carrier. All applicable directions, restrictions, and precautions for the tank mixture herbicide(s) must be followed.

Apply Sonic Boom spray mixtures immediately after mixing. **DO NOT** store mixture. **DO NOT** store the sprayer overnight or for any extended period for time with Sonic Boom spray mixture remaining in the tank. **DO NOT** premix Sonic Boom spray solutions in nurse tanks. If Sonic Boom was tank mixed with other herbicides, all additional directions, restrictions, and precautions for the additional herbicides must also be followed.

SPRAYER EQUIPMENT CLEAN-OUT

As soon as possible after spraying Sonic Boom and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop effects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Sonic Boom as required on the other product labels.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray nozzles and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.
2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.
3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray nozzles and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.
5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

DO NOT apply sprayer cleaning solutions or rinsate to sensitive crops.

DO NOT store the sprayer overnight or for any extended period of time with Sonic Boom spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before mixing new spray solution or beginning any application.

Should small quantities of Sonic Boom 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. To the extent consistent with applicable law, Corteva Agriscience accepts no liability for any effects due to inadequately cleaned equipment.

DO NOT drain or flush equipment on or near desirable or susceptible trees or plants.

DO NOT contaminate any body of water including irrigation water that may be used on other crops.

WEEDS CONTROLLED

When applied in accordance with the Application Instructions and the specific crop use directions, Sonic Boom applied alone or in specified tank mixtures will provide control of the following weeds. Refer to the specific crop section for detailed application information, restrictions and precautions.

BROADLEAVES	
Common Name	Scientific Name
Amaranth, Palmer	<i>Amaranthus Palmeri</i>
Amaranth, spiny	<i>Amaranthus spinosus</i>
Anoda, spurred	<i>Anoda cristata</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Carpetweed	<i>Mollugo verticillata</i>
Copperleaf, hop hornbeam	<i>Acalypha ostryifolia</i>
Croton, tropic	<i>Croton glandulosus</i>
Daisy, American	<i>Eclipta alba</i>
Galinsoga, hairy	<i>Galinsoga ciliata</i>
Ground cherry, clammy	<i>Physalis heterophylla</i>
Ground cherry, cutleaf	<i>Physalis angulata</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladys thumb	<i>Polygonum persicaria</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morning glory, entireleaf	<i>Ipomoea integrifolia</i>
Morning glory, ivyleaf	<i>Ipomoea hederacea</i>
Morning glory, palmleaf	<i>Ipomoea wrightii</i>

BROADLEAVES (Cont.)	
Common Name	Scientific Name
Morning glory, purple	<i>Ipomoea turbinata</i>
Morning glory, red	<i>Ipomoea coccinea</i>
Morning glory, smallflower	<i>Jacquemontia tamnifolia</i>
Morning glory, tall	<i>Ipomoea purpurea</i>
Nightshade, eastern black	<i>Solanum ptycanthum</i>
Nightshade, hairy	<i>Solanum sarrachoides</i>
Nightshade, silverleaf	<i>Solanum elaeagnifolium</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Poorjoe	<i>Diodia teres</i>
Purslane, common	<i>Portulaca oleracea</i>
Senna, coffee	<i>Cassia occidentalis</i>
Sida, prickly (Teaweed)	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smell melon	<i>Cucumis melo</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Starbur, bristly	<i>Acanthospermum hispidum</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatus</i>

GRASSES (Suppression Only)	
Common Name	Scientific Name
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Goosegrass	<i>Eleusine indica</i>
Green Foxtail	<i>Setaria viridis</i>
Johnsongrass, seedling	<i>Sorghum halepense</i>
Orchardgrass	<i>Dactylis glomerata</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>

SEDGES	
Common Name	Scientific Name
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cyperus compressus</i>

For winter annual weeds, such as those listed below, and/or other emerged weeds, add the appropriate rate of 2,4-D, or glyphosate-based product to Sonic Boom applications.

Common Name	Scientific Name
Chickweed, common	<i>Stellaria media</i>
Deadnettle, purple	<i>Lamium purpureum</i>
Field pennycress	<i>Thlaspi arvense</i>
Henbit	<i>Lamium amplexicaule</i>
Marestail	<i>Hippuris vulgaris</i>
Mustard spp.	<i>Brassica</i> spp.
Prickly Lettuce	<i>Lactuca serriola</i>
Shepherd's purse	<i>Capsella bursa pastoris</i>
Speedwell spp.	<i>Veronica</i> spp.
Virginia pepperweed	<i>Lepidium virginicum</i>

CROP ROTATION

Waiting Period After Sonic Boom Application			
Anytime	Tomatoes (Transplanted only)	Soybeans	Sugarcane
4 Months	Barley	Wheat	Field Corn ^{1,6} (Fall application only)
10 Months	Rice	Field Corn ⁶	
12 Months	Alfalfa Dry Beans Potato	Asparagus Sunflower Sorghum ²	Peanuts Tobacco Cotton ⁵
18 Months	Cotton ³ And all other crops not listed on the label ³	Sorghum	Sweet Corn ³
24 Months	Canola ³	Sugarbeets ^{3,4}	

¹Field Corn includes corn grown for grain, forage or silage, and seed corn.
²Sorghum may be planted after 12 months where Sonic Boom was applied at 19.5 fl.oz./acre or less in the previous year.
³Crops that have rotational intervals greater than 12 months after a Sonic Boom application are the result of crop injury concerns.
⁴A rotation interval of 24 months is allowed with a successful bioassay.
⁵Cotton may be planted after 12 months where Sonic Boom was applied at rates 16.6 fl.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 Sonic Boom to rotate to cotton

⁶Field Corn may be planted after 4 months where Sonic Boom was applied at 14 fl oz/acre or less in the Fall. Where Sonic Boom was applied at greater than 14 fl oz/acre, the rotation interval to Field Corn is 10 months.

SOIL CLASSIFICATION CHART

COARSE	MEDIUM	FINE
Sand Loamy sand Sandy loam	Sandy clay loam Sandy clay Loam Silt loam Silt	Silty clay loam Silty clay Clay loam Clay

MAXIMUM USE RATE CHART

Crop	Maximum Fluid Ounce per Acre Rate (lb ai/A)	LB AI Metribuzin per Acre	LB AI Sulfentrazone per Acre
Asparagus	43 (1.13)	0.75	0.38
Field Corn (Fall Application)	14 (0.38)	0.25	0.13
Potatoes	29 (0.76)	0.51	0.25
Soybeans	26 (0.68)	0.45	0.23
Sugarcane	42 (1.1)	0.73	0.37
Tomatoes	26 (0.68)	0.45	0.23
Fallow or Eco-Fallow Cropland¹	26 (0.68)	0.45	0.23

¹Apply 14 fluid ounces or less per acre if planting field corn the following Spring. See Crop Rotation table and Field Corn section for further details.

ASPARAGUS

Spring Pre-emergence Applications

Apply Sonic Boom as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Apply using rate chart below, in 10 to 40 gallons of finished spray per acre. Sonic Boom may be applied with other pesticides registered for use on asparagus.

USE RATE TABLE FOR ASPARAGUS			
	Broadcast Rate – Fl. Oz. per Acre		
	% Organic Matter		
Soil Texture	<1.5	1.5 – 3.0	>3.0
Coarse	16 - 22	22 – 29	29 - 36
Medium	22 – 29	29 – 36	36 - 43
Fine	29	36	43

Within the rate ranges indicated, use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Sonic Boom (metribuzin and sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and resistance among crops. Not all varieties or cultivars of a given crop species have been evaluated under treatment with Sonic Boom. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Sonic Boom under specific local conditions.

Restrictions

- Single maximum use rate: 43 fluid ounces per acre (0.75 lb metribuzin + 0.38 lb sulfentrazone, totaling 1.13 lb ai/A)
- Total maximum use rate per year: 43 fluid ounces per acre (0.75 lb metribuzin + 0.38 lb sulfentrazone, totaling 1.13 lb ai/A)
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.
- Pre-Harvest Interval (PHI): 14 days
- Retreatment Interval (RTI): 12 months
- **DO NOT** apply by air.
- **DO NOT** use on soils classified as sand, which have less than 1% organic matter.
- **DO NOT** use on newly seeded asparagus or on young plants during the first growing season after setting crowns.
- **DO NOT** use low-pressure, high volume hand wand equipment to apply Sonic Boom.

FIELD CORN (Grain, Seed Corn, forage and silage)

Fall Application Only

Preplant (Fall Applications)

Apply Sonic Boom in the fall as a residual treatment before corn planting the following spring.

Sonic Boom can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using the rates specified. Sonic Boom should be applied to the stubble or soil surface to allow moisture from rainfall or snow to move the product into the soil. **DO NOT** mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur.

Apply Sonic Boom after September 30 and October 15 for areas north of Interstate 90 and Interstate 40, respectively. Apply when soil temperatures are below 55°F but **DO NOT** apply to frozen soils or existing snow cover to prevent runoff from rain or snowmelt that may occur following application. Sonic Boom may be tank mixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the appropriate use rate for corn for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Sonic Boom should be the mid to high rate within the appropriate rate range.

USE RATE TABLE FOR FIELD CORN		
	Broadcast Rate – Fl. Oz. per Acre	
	% Organic Matter	
Soil Texture	1 - 2%	2 - 4%
Coarse	10	10 - 14
Medium	10 - 13	12 - 14
Fine	12 - 14	14

Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories.
 Within the ranges indicated, use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0.

Restrictions

- Single maximum use rate: 14 fluid ounces per acre (0.25 lb metribuzin + 0.13 lb sulfentrazone, totaling 0.38 lb ai/A).
- Total maximum use rate per year: 14 fluid ounces per acre (0.25 lb metribuzin + 0.13 lb sulfentrazone, totaling 0.38 lb ai/A).
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.
- Pre-harvest Interval (PHI): not applicable for fall applications.
- Retreatment Interval (RTI): 12 months.
- **DO NOT** apply to coarse soils classified as sand, which have less than 1% organic matter.
- **DO NOT** apply to frozen soils or existing snow cover to prevent runoff from rain or snowmelt that may occur following application.
- **DO NOT** use low-pressure, high volume hand wand equipment to apply Sonic Boom.

POTATOES

Not for use on potatoes in the states of Arizona, California, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming

Pre-emergence Application

Ground and Aerial Applications

Apply Sonic Boom by air as a pre-emergence treatment following planting and after drag-off, but before potato emergence. For best results, apply to the soil surface and use either rainfall or overhead irrigation to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed to activate the product before weed and potato emergence. Choose the appropriate use rate from the use rate table based on soil texture and organic matter. For control of emerged weeds at the time of the Sonic Boom application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tank mixed with Sonic Boom to control them.

DO NOT apply Sonic Boom if the potatoes have emerged from the soil as undesirable crop response may occur. Sonic Boom may be tank mixed with other soil-applied herbicides labeled for use on potatoes to improve weed management and increase weed control spectrum.

Apply Sonic Boom in a minimum of 10 gallons of spray by ground application and minimum of 5 gallons of spray by air.

Note: irrigation with highly alkaline water (high pH) following a Sonic Boom soil application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Sonic Boom application rate, application timing, amount, and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen as the crop matures.

USE RATE TABLE FOR POTATOES

Soil Texture	Broadcast Rate – Fl. Oz. per Acre		
	% Organic Matter		
	<1.5	1.5 – 3.0	>3.0
Coarse	11 - 16	11 - 16	13 - 19
Medium	11 - 16	13 - 22	16 - 22
Fine	16 - 22	19 - 24	22 - 29

Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories.

Within the ranges indicated, use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0.

Precautions

- These Crop Specific Use directions are based upon the interactive effects of Sonic Boom and the primary soil and environmental factors, which affect its activity on various weed species and resistance among crops. Note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Sonic Boom. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Sonic Boom under specific local conditions. When using Sonic Boom on an untested variety always determine the crop resistance before planting.

Restrictions

- Single maximum use rate: 29 fluid ounces per acre (0.51 lb metribuzin + 0.25 lb sulfentrazone, totaling 0.76 lb ai/A)
- Total maximum use rate per year: 29 fluid ounces per acre (0.51 lb metribuzin + 0.25 lb sulfentrazone, totaling 0.76 lb ai/A)
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.
- Pre-Harvest Interval (PHI): not applicable for pre-emergence application
- Retreatment Interval (RTI): 12 months
- DO NOT** apply Sonic Boom after potato emergence from the soil as undesirable crop response may occur.
- DO NOT** use on soils classified as sand, which have less than 1% organic matter.
- DO NOT** apply with an airblast sprayer.
- DO NOT** apply to sweet potatoes or yams.
- DO NOT** use low-pressure, high volume hand wand equipment to apply Sonic Boom.

SOYBEANS (Except in CA)

Apply Sonic Boom as a pre-emergence or preplant incorporated treatment for the control of weeds in soybeans.

SOYBEAN RESISTANCE

The active ingredients in Sonic Boom have been known to show some level of injury to soybean plants when used according to label guidelines.

DO NOT use Sonic Boom on any soybean varieties that are known to be sensitive to injury from metribuzin or sulfentrazone. Information regarding herbicide resistance of soybean varieties can be obtained from the seed company providing the seed or from university or Extension weed management specialists.

If cool/cold weather or heavy rainfall occurs immediately following a Sonic Boom application, soybean stunting or stand loss could occur, although yields have not been affected where early season stunting has occurred. Injury to soybeans can also occur under the following conditions: (1) excessive rate for soil type, (2) boom overlap, (3) improper sprayer calibration, (4) error in mixing procedures, (5) when soils have a calcareous surface area or pH greater than 7.5, (6) soil incorporation deeper than specified, (7) when applied with organophosphate pesticides, (8) when heavy rains occur after application, especially in poorly drained areas, (9) when soybeans are planted less than 1 1/2 inches deep, (10) on any soil with less than 0.5% organic matter.

APPLICATION INFORMATION

Ground Application

Use a boom and nozzle ground sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

DO NOT apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

DO NOT apply when wind speed favors drift beyond the area intended for treatment.

FALL APPLICATIONS

Apply Sonic Boom as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and pre-emergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Sonic Boom can be applied in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 40. To obtain adequate weed control in all area's soils must have sustained temperature of 55 degrees F or lower. Applications to ridge till production systems must be made after the formation of ridges or beds. If weeds are emerged at the time of application, use a tank mixture with a registered burndown herbicide at labeled rates. Make fall applied burndown treatments with a minimum of 15 gallons per acre to ensure adequate coverage of the weeds being treated, increase spray volume (gallons per acre) where weed density is high or heavy crop residue levels are present. When making burndown applications to emerged weeds, adjuvants such as crop oil concentrate (COC) or methylated seed oil (MSO) to the spray mixture to enhance the burndown activity of the application. Refer to product labels for use rates and instructions. For Sonic Boom application rates refer to **RATE TABLE** for standard rate programs.

SPRING APPLICATIONS

EARLY PRE-PLANT

Apply Sonic Boom up to 30-45 days prior to planting (Early Preplant) in no-till or minimum till cropping systems. For applications earlier than 30 days prior to planting, the high rate in the rate range may be needed for extended residual control. Sonic Boom provides limited burndown of small weeds. Sonic Boom applied early pre-plant must be applied in combination with the appropriate burndown herbicide such as those containing glyphosate, glufosinate, gramoxone, and/or 2,4-D to achieve acceptable control of existing weeds during application. The addition of crop oil concentrate at 1 quart per acre or non-ionic surfactant at 0.25% will increase burndown effectiveness. For Sonic Boom application rates refer to **RATE TABLE** for standard rate programs.

PREPLANT INCORPORATED

Apply Sonic Boom preplant incorporated before planting soybeans. Sonic Boom may be applied alone or in combination with other preplant

incorporated herbicides labeled for soybeans. **DO NOT** incorporate deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Sonic Boom may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. For Sonic Boom application rates refer to **RATE TABLE** for standard rate programs.

PRE-EMERGENCE

Apply Sonic Boom from 30 days before planting to up to 3 days after planting, but before the crop seed germinates, to prevent injury to emerging crop seedlings. Sonic Boom applied after crop emergence will cause severe injury to the crop. Please see below for more information regarding soybean resistance.

Sonic Boom can be applied alone or in combination with other labeled soybean herbicides for pre-emergence grass control. It can be applied pre-emergence following the use of a preplant incorporated grass herbicide labeled for use on soybeans. If weeds are present at the time of Sonic Boom application, also apply with labeled burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions.

Properly closed planter seed furrows are required before Sonic Boom application to avoid crop injury. For Sonic Boom application rates refer to **RATE TABLE** for standard rate programs.

USE RATE TABLE FOR SOYBEANS		
Fall, Early Pre-Plant, Pre-Plant Incorporated, Pre-emergence Conservation or Conventional Tillage		
Fluid ounces/Acre*	Broadcast Rate – Fl. Oz. per Acre*	
	% Organic Matter***	
Soil Texture**	1.0 – 2.0%	2.0 – 4.0%
Coarse	11 – 14	14 – 21
Medium	14 – 21	18 – 23
Fine	18 – 23	21 – 26
* Use the higher rate for suppression of grasses and sedges. ** Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART. *** DO NOT apply to soils with less than 1% organic matter. Adverse crop response can occur on soils with pH greater than 7.5. Within the ranges indicated, use the lower rates for pH greater than 7.5.		

REPLANTING INSTRUCTIONS

If initial planting of soybeans fails to produce a stand due to adverse environmental conditions, only soybeans may be replanted in fields treated with Sonic Boom when used according to directions in Soybean section. **DO NOT** retreat field with a second application of Sonic Boom unless specifically allowed in other sections of the label or crop injury may occur. When replanting another crop than soybeans, observe the intervals found in the Crop Rotation table on this label for Sonic Boom. When specified tank mix combinations are used, consult the product label for replanting and re-cropping instructions and observe the directions that are the most restrictive.

RESTRICTIONS

- Single maximum use rate: 26 fluid ounces per acre (0.45 lb metribuzin + 0.23 lb sulfentrazone, totaling 0.68 lb ai/A)
- Total maximum use rate per year: 26 fluid ounces per acre (0.45 lb metribuzin + 0.23 lb sulfentrazone, totaling 0.68 lb ai/A)
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.
- Pre-Harvest Interval (PHI): not applicable for fall or pre-emergence applications
- Retreatment Interval (RTI): 12 months
- **DO NOT** apply to soils classified as sand containing less than 1% organic matter.
- **DO NOT** apply Sonic Boom after soybeans have emerged.
- **DO NOT** apply Sonic Boom to frozen soil.
- **DO NOT** incorporate deeper than 2 inches.
- Not for use in California.
- **DO NOT** graze treated soybean or harvest for forage or hay.
- **DO NOT** use low-pressure, high volume hand wand equipment to apply Sonic Boom.

SUGARCANE

Planting Time and Lay-by Applications

Planting Time Application

Apply Sonic Boom to newly planted or ratoon sugarcane as a broadcast or banded pre-emergent soil applied treatment for the control of broadleaf weeds, grasses, and sedges. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by

air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 10 gallons of spray per acre. Sonic Boom may be applied with other herbicides registered for use in sugarcane.

For aerial application, and to assure that spray does not adversely affect adjacent sensitive non-target crops, apply Sonic Boom at a minimum upwind distance of 400 feet from sensitive plants.

USE RATE TABLE FOR SUGARCANE		
Fluid ounces/Acre*	Broadcast Rate – Fl. Oz. per Acre	
	% Organic Matter	
Soil Texture**	1.0 – 2.0%	2.0 – 4.0%
Coarse	21 – 26	26 – 33
Medium	26 – 33	33 – 39
Fine	33 – 39	39 – 42
*Within the ranges indicated, use the higher rates for soils of pH less than 7.0. Use the lower rates for pH greater than 7.0.		
**Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.		

RESTRICTIONS

- Single maximum use rate: 42 fluid ounces per acre (0.73 lb metribuzin + 0.37 lb sulfentrazone, totaling 1.1 lb ai/A)
- Total maximum use rate per year: 42 fluid ounces per acre (0.73 lb metribuzin + 0.37 lb sulfentrazone, totaling 1.1 lb ai/A)
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.
- Pre-Harvest Interval (PHI): 120 days
- Retreatment Interval (RTI): 12 months
- **DO NOT** graze treated sugarcane or harvest for forage or hay.
- To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply this product by aircraft at a minimum upwind distance of 400 feet from sensitive plants.
- **DO NOT** use low-pressure, high volume hand wand equipment to apply Sonic Boom.

TOMATOES (Transplanted Only)

Preplant Incorporated Applications (PPI)

Preplant Incorporated (PPI)

Apply Sonic Boom preplant incorporated (1" – 2" deep) as a broadcast application.

Applications must be made prior to transplanting.

These Crop Specific Use directions are based upon the interactive effects of Sonic Boom (sulfentrazone + metribuzin) and the primary soil and environmental factors, which affect its activity on various weed species and resistance among crops. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Sonic Boom.

When transplanting tomatoes, place the root system of the plants below the herbicide incorporation zone or injury may occur.

Apply by ground in a minimum of 10 gallons per acre of spray.

USE RATE TABLE FOR TOMATOES (TRANSPLANTED ONLY)			
Fluid ounces/Acre	Broadcast Rate – Fl. Oz. per Acre		
	% Organic Matter		
Soil Texture	<1.5	1.5 – 3.0	>3.0
Coarse	8 – 10	10 – 16	10 – 21
Medium	10 – 21	21	21 – 26
Fine	21 – 26	26	26
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories.			
Use higher rates for soils of pH less than 7.0 and lowest rate listed per soil type and organic matter for pH greater than 7.0.			

Restrictions

- Single maximum use rate: 26 fluid ounces per acre (0.45 lb metribuzin + 0.23 lb sulfentrazone, totaling 0.68 lb ai/A)
- Total maximum use rate per year: 26 fluid ounces per acre (0.45 lb metribuzin + 0.23 lb sulfentrazone, totaling 0.68 lb ai/A)
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.

- Pre-Harvest Interval (PHI): not applicable for preplant incorporated applications
- Retreatment Interval (RTI): 12 months
- **DO NOT** apply by air.
- **DO NOT** make postemergence applications of other herbicides containing metribuzin to transplanted tomatoes within 14 days of applying Sonic Boom.
- **DO NOT** use on soils classified as sand, which have less than 1% organic matter.
- **DO NOT** use low-pressure, high volume hand wand equipment to apply Sonic Boom.

FALLOW OR ECO-FALLOW CROPLAND

Apply Sonic Boom in the spring or fall to stubble of harvested crops, or fallow ground for control of weeds prior to emergence in no-till or conservation tillage (CRP) systems. Make application by ground or air, using a minimum of 10 gal/A by ground or 5 gal/A by air. For fall applications, apply when soil temperatures are 55F or below at a 4-inch soil depth. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 40. Sonic Boom may be tank mixed with other herbicides labeled for this use. The addition of atrazine at 0.5-1.0 lb/A can improve residual control of some weed species. Tank mix a labeled burndown herbicide for control of emerged broadleaf or grass weeds.

USE RATE TABLE FOR FALLOW or ECO-FALLOW CROPLAND Spring or Fall ¹ Applications for Control of Kochia, Russian Thistle, Lambsquarters, and other Labeled Weed Species		
Soil Texture ⁴	Broadcast Rate – Fl. Oz. per Acre ^{2,3}	
	% Organic Matter	
	1.0 – 2.0%	2.0 – 4.0%
Coarse	11 – 14	14 – 21
Medium	14 – 21	18 – 23
Fine	18 – 23	21 – 26

¹Refer to section for Fall Applications of Sonic Boom ahead of Field Corn for proper rates and application guidelines when Field Corn is to be planted the following spring.

²Use the higher rate for suppression of grasses and sedges.

³Refer to rotation guidelines of the Sonic Boom label to ensure the selected use rate of Sonic Boom aligns with rotational intervals and restrictions for subsequent cropping plans.

⁴Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.

Use higher rates for soils of pH less than 7.0 and lowest rate listed per soil type and organic matter for pH greater than 7.0.

Restrictions:

- Single maximum use rate: 26 fluid ounces per acre (0.45 lb metribuzin + 0.23 lb sulfentrazone, totaling 0.68 lb ai/A)
- Total maximum use rate per year: 26 fluid ounces per acre (0.45 lb metribuzin + 0.23 lb sulfentrazone, totaling 0.68 lb ai/A)
- Total maximum applications per year: One (1) application per 12-month period. The 12-month period is considered to begin upon the initial Sonic Boom application.
- Pre-Harvest Interval (PHI): not applicable
- Retreatment Interval (RTI): 12 months
- **DO NOT** apply to frozen soils
- **DO NOT** apply to soils classified as sand, with less than 1% organic matter.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store product in original container only, away from fertilizer, food or feed. Store in a cool, dry place and avoid excess heat.

To confine spill

If liquid, dike surrounding area or absorb with sand, cat litter, or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal

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

STORAGE AND DISPOSAL (Cont.)

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 greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

(For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank. 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.

Then offer for recycling if available, or reconditioning if appropriate, or, if allowed by state and local authorities, puncture and dispose of in a sanitary landfill or incineration, or by burning. If burned, stay out of smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse 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 refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% 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 reconditioning if appropriate, or, if allowed by state and local authorities, puncture and dispose of in a sanitary landfill or incineration, or by burning. If burned, stay out of smoke.

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

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

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions for use, subject to the inherent risks set forth below. To the extent consistent with applicable law, Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of

other materials, the manner of application or other factors, all of which are beyond the control of Corteva Agriscience or the seller. Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent consistent with applicable law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

Limitation of Remedies

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, tort, strict liability, or other legal theories), shall be limited to, at Corteva Agriscience's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of product used.

To the extent consistent with applicable law, Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. To the extent consistent with applicable law, in no case shall Corteva Agriscience be liable for consequential, incidental or special damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Corteva Agriscience or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Revisions:

1. Added use for Fallow or Eco Fallow Cropland
2. Corrected spelling of "coarse" throughout the label
3. Updated state restrictions for potatoes
4. Reformat sections of the label.