SULFENTRAZONE | GROUP 14 HERBICIDE | S-METOLACHLOR | GROUP 15 HERBICIDE | PULL HERE TO OPEN

BroadAxe® XC Herbicide

syngenta®

Active Ingredient:	**By Wt.**
Sulfentrazone	7.55%
S-metolachlor	68.25%
Other Ingredients:	24.20%
Total:	100.00%

Contains a total of 7.0 lb/gal which include 0.7 lb ai sulfentrazone and 6.3 lb ai *S*-metolachlor per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Reg. No. 279-3442-100

EPA Est. 100-NE-001

SCPSR-FMC-279-3442-L1D 0123
4237500

2.5 gallons

Net Contents

®

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 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 treatment advice.

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 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.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact Syngenta Crop Protection 1-800-888-8372 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: Coveralls over short-sleeved shirt and short pants; chemical-resistant gloves made of any waterproof material, chemical-resistant footwear plus socks, and chemical resistant apron when cleaning equipment, mixing, or loading.

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.

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

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 is toxic to fish and 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.

Mixing/Loading Instructions

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

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

BroadAxe XC Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, 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 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.

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

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

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, this product 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.

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

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

Reporting ecological incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-800-888-8372.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

Endangered Species Protection Requirements: It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g. kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

Exception: if the product is soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls over short-sleeve shirt and short pants,
- Chemical-resistant gloves made of any waterproof material, and
- Chemical-resistant footwear plus socks.

WEED RESISTANCE MANAGEMENT

BroadAxe XC Herbicide, which contains the active ingredients sulfentrazone and S-metolachlor is a group 14 and 15 herbicide based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of BroadAxe XC Herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local retailer or county extension agent.
- Contact your crop advisor or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled by multiple sites of action. Some weeds may be controlled by only one of the active ingredient in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 and 15 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 14 and 15 herbicides.
- Avoid making more than two applications of BroadAxe XC Herbicide and any other Group 14 and 15 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

PRODUCT INFORMATION

BroadAxe XC Herbicide is a soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds.

If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the BroadAxe XC Herbicide treatment, a shallow incorporation (less than 2"), may be needed to obtain desired weed control.

When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1") is not received BroadAxe XC Herbicide will provide a reduced level of control of susceptible germinating weeds.

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 BroadAxe XC Herbicide. Tank mixtures are permitted only in those states where the tank mix partner is registered.

BroadAxe XC Herbicide can be mixed with water, liquid fertilizer, or mixtures of water and liquid fertilizer and applied as a preplant or preemergence treatment to labeled crops. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mix mixture.

Under normal growing conditions, BroadAxe XC Herbicide exhibits excellent crop safety. Soil applications of BroadAxe XC Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. BroadAxe XC Herbicide applied after crop emergence will cause severe injury to the crop. Poor growing conditions, such as excessive soil moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling vigor. Under these conditions, the active ingredients in BroadAxe XC Herbicide can contribute to crop response. Refer to the specific directions of use for a particular crop/use pattern as set forth below for additional information.

IMPORTANT PRECAUTIONS

1. Ensure the seed furrow is closed and the seed covered on acres treated with BroadAxe XC Herbicide.
2. 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.
3. Do not apply if there are visible signs of cracking due to soybean emergence, or serious crop injury may result, such as but not limited to stand loss.
4. 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.
5. When tank mixing, follow the most restrictive use rates and precautions of the mixing partners.

Mechanism of Action

Following the application of BroadAxe XC Herbicide to soil, germinating seeds and seedlings take up BroadAxe XC Herbicide from the soil solution. The amount of BroadAxe XC Herbicide in soil solution available for weed uptake is determined primarily by soil type, soil organic matter and soil pH. Similar to other herbicides, BroadAxe XC Herbicide adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds.

Influence of soil type, organic matter and pH on BroadAxe XC Herbicide use rates and crop response

Coarse textured and high pH >7.2 soils (see Table 1) will exhibit increased weed control and crop response with BroadAxe XC Herbicide. It is important to know the soil type and soil pH levels of the field (or areas within a field) before application to determine the proper rate of BroadAxe XC Herbicide for the crop. Soil organic matter content and soil pH can vary widely and independently of soil type and requires an accurate analysis of representative soil samples or grids of soil samples within a specific field to determine its content.

It is important to note that irrigation with highly alkaline water (high pH) following a BroadAxe XC Herbicide soil application can also significantly increase the amount of BroadAxe XC Herbicide available in the soil solution. Irrigation with water having a pH greater than 7.2 could result in adverse crop response. This response will ultimately depend on initial BroadAxe XC Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and its growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

SOIL TEXTURE CLASSIFICATION CHART

Table 1

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

APPLICATION INFORMATION

Ground and Aerial Application

Utilize a sprayer equipped with the appropriate nozzles providing optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift. Apply a minimum of 10 gallons of finished spray solution per acre by ground or 5 gallons by air. The sprayer should be properly calibrated to deliver the appropriate volume of herbicide solution. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response. When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.

Restrictions

Do not apply when wind speed favors drift beyond the area intended for treatment.

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

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

Aerial application will be allowed when the field is too wet to safely apply pesticides using ground equipment.

Chemigation Application

Apply BroadAxe XC Herbicide in 0.25 to 1 inch of water. Use the lower water volume on coarse textured soil and higher volume on fine textured soils. Applying >1" of irrigation water may result in reduced weed control by moving the product below the weed germination zone in the soil. Apply immediately after planting unless specified differently in the individual crop section. BroadAxe XC Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

BroadAxe XC Herbicide should be metered into the irrigation system continuously for the duration of the water application. BroadAxe XC Herbicide should be diluted in sufficient volume to ensure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY BroadAxe XC Herbicide THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. BroadAxe XC Herbicide may be applied through irrigation systems, which may be supplied by a public water system only if water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

It is important to note that irrigation with highly alkaline water (high pH) following a BroadAxe XC Herbicide soil application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.2 could result in adverse crop response.

Restrictions

Do not apply by chemigation if there are visible signs of cracking due to soybean emergence, or serious crop injury may result, such as but not limited to stand loss.

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

Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system.

Application with Dry Fertilizers

BroadAxe XC Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, BroadAxe XC Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all BroadAxe XC Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions. Apply BroadAxe XC Herbicide/dry fertilizer mixtures with ground equipment only. All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the BroadAxe XC Herbicide/dry fertilizer mixture.

Impregnation Directions

To impregnate BroadAxe XC Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of BroadAxe XC Herbicide in a clean container using clear water. Slowly add the BroadAxe XC Herbicide/water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of BroadAxe XC Herbicide onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the BroadAxe XC Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The BroadAxe XC Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased BroadAxe XC Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the listed amount of BroadAxe XC Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

Refer to the appropriate crop section of the BroadAxe XC Herbicide label to determine the rate of BroadAxe XC Herbicide to be applied per acre. Use the following table to determine the amount of BroadAxe XC Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in Table 2, calculate the amount of BroadAxe XC Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{BroadAxe XC Herbicide use rate in fluid ounces per acre} = \text{fluid ounces of BroadAxe XC Herbicide to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH BroadAxe XC Herbicide

Table 2

Dry fertilizer rate per acre	fl oz BroadAxe XC Herbicide per ton of fertilizer		
	BroadAxe XC Herbicide Use Rate Per Acre		
lb/acre	14 fl oz / A	26 fl oz / A	35 fl oz / A
200	140	260	350
250	112	208	280
300	93	173	233
350	80	148	200
400	70	130	175
450	62	114	154

Restrictions

DO NOT impregnate BroadAxe XC Herbicide onto coated on ammonium nitrate, potassium nitrate, or sodium nitrate either alone or in blends with other fertilizers because these materials will not absorb the herbicide.

Do not use BroadAxe XC Herbicide alone or in mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where bedding occurs.

Application with Liquid Fertilizer

BroadAxe XC Herbicide may be applied using liquid fertilizer or fertilizer and water mixtures as the carrier. Adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems may occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to ensure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

Mixing Instructions for Liquid Fertilizer Applications

Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Pre slurry BroadAxe XC Herbicide with water prior to adding to the spray tank. Carefully rinse the empty container, adding the rinsate to the spray tank.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Ensure the BroadAxe XC Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to ensure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the BroadAxe XC Herbicide spray mixture immediately after mixing. It is not recommended to store the sprayer overnight or for any extended period of time with the BroadAxe XC Herbicide spray mixture remaining in the tank. Thoroughly re-agitate spray mixture if product is left sitting in the tank for extended period of time.

If BroadAxe XC Herbicide is mixed and loaded in nurse tanks, thorough agitation of spray solution is required prior to off-loading and application.

Follow all BroadAxe XC Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the BroadAxe XC Herbicide and fertilizer mixture.

MANDATORY SPRAY DRIFT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Select coarse to very coarse droplet size (ASABE S641) when sulfentrazone is used as a preemergent/preplant application.
- Select medium to very coarse droplet size (ASABE S641) when sulfentrazone is used postemergence with a contact burndown herbicide.
- Applicators may spray only when wind speed is between 3 and 10 mph.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- The boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

Ground Boom Applications:

- For boom spraying, the minimum release height must be 30 inches from the soil for ground applications.
- Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.
- Select medium to very coarse droplet size (ASABE S572) when sulfentrazone is used postemergence with a contact burndown herbicide.
- Applicators may spray only when wind speed is between 3 and 10 mph.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
Be aware of nearby Non-Target sites and environmental conditions.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Off-Target Movement of BroadAxe XC Herbicide

Drift of dilute spray mixtures containing BroadAxe XC Herbicide must be prevented. Observation of the environmental conditions, correct application equipment design, calibration and application practices will reduce the risk of off-target spray drift. BroadAxe XC Herbicide can cause damage by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by BroadAxe XC Herbicide drift mixtures. Depending on sensitivity of the plants, the concentration of the spray solution and droplets size these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but can reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In drift instances with sensitive crops, defoliation of affected foliage could result.

MAXIMUM ALLOWABLE BroadAxe XC Herbicide

USE PER ACRE PER 12 MONTH CROPPING YEAR PERIOD

The total allowed usage includes all applications made to the field per twelve-month cropping year. This includes all pre plant and after plant pre emerge treatments.

RESTRICTION: Do not exceed maximum allowed use rate of sulfentrazone or *S*-metolachlor on each crop. **Refer to the crop section of this label for specific product use directions.**

Table 3

Name of the crop	BroadAxe XC Herbicide fl oz/A	Total Lb ai/A	Lb ai sulfentrazone/A	Lb ai *S*-metolachlor/A
Dry Shelled Peas	38.7	2.12	0.21	1.90
Horseradish	25.0	1.36	0.13	1.23
Soybeans	38.7	2.12	0.21	1.90
Sunflowers	38.7	2.12	0.21	1.90

CROP ROTATIONAL RESTRICTIONS

The following Table 4 shows the minimum interval in months from the time of the last BroadAxe XC Herbicide application until BroadAxe XC Herbicide treated soil can be replanted to the crops listed. Cover crops for soil health and erosion control can be planted at any time after an application of BroadAxe XC Herbicide, but do not use cover crops for food or feed. Consult your local University extension service for cover crop sensitivity to BroadAxe XC Herbicide. When BroadAxe XC Herbicide is tank mixed with another herbicide, refer to the partner label for re-cropping instructions, following the directions that are most restrictive.

Some crops have rotational intervals greater than 12 months after a BroadAxe XC Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to BroadAxe XC Herbicide.

RESTRICTION: Do not rotate to food or feed crops other than those listed on the label.

CROP ROTATIONAL RESTRICTIONS

Table 4

Crop	Interval (Months)
Alfalfa*	12
Barley	4 1/2
Cabbage (transplant only)	2
Cereal Grains (Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Buckwheat	12
Corn, Field	4
Corn, Pop	10
Corn, Sweet	12
Cotton	18 or 12**
Cowpea (succulent)	8
Dry Shelled Peas	Anytime
Horseradish	Anytime
Lima Beans-Tennessee Only	4
Peanuts	4
Potatoes	4
Rice	10
Rye	4 1/2
Safflower	Anytime
Sorghum	10
Soybeans	Anytime
Succulent peas	8
Sugar Beets	36 or 24***
Sunflowers	Anytime
Triticale	4 1/2
Tobacco	10
Tomato	4
Wheat	4 1/2

*To avoid injury to rotational alfalfa, (1) Do not apply more than 1.9 lb ai *S*-metolachlor per acre in the previous crop, and (2) Do not make lay-by or other postemergent applications of products containing *S*-metolachlor in the previous crop.

** Cotton may be planted after 12 months where BroadAxe XC Herbicide was applied at rates 36 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 BroadAxe XC Herbicide to rotate to cotton

***Sugar beets can be planted after 24 months with a successful bioassay.

For all other crops not listed, the rotation interval is a minimum of 12 months with a representative bioassay to determine crop safety before planting.

REPLANTING INSTRUCTIONS

If initial planting of labeled crops fails to produce a stand, only crops labeled for BroadAxe XC Herbicide or the tank mix partner; whichever is most restrictive, may be planted based on the amount of product initially applied. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

RESTRICTIONS:
Do not retreat field with BroadAxe XC Herbicide or other herbicide containing sulfentrazone and *S*-metolachlor. Do not plant treated fields to any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label.

BAND TREATMENT APPLICATIONS

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

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS

BroadAxe XC Herbicide may be applied alone, or in tank mixtures with other labeled herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

It is important that spray equipment is clean and free of existing pesticide residues before preparing BroadAxe XC Herbicide spray mixtures. For all tanks containing spray solution follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Slowly add the BroadAxe XC Herbicide to the spray tank. Carefully rinse the empty 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. Make sure BroadAxe XC Herbicide is thoroughly mixed before application.

Use the BroadAxe XC Herbicide spray mixture immediately after mixing. Avoid storing the sprayer overnight or for any extended period of time with the BroadAxe XC Herbicide spray mixture remaining in the tank.

If BroadAxe XC Herbicide is tank mixed with other labeled herbicides, it is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

SPRAYER EQUIPMENT CLEAN-OUT

As soon as possible after spraying BroadAxe XC Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects 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 BroadAxe XC Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

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 tips 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 tips 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 BroadAxe XC Herbicide 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 beginning any application.

Should small quantities of BroadAxe XC Herbicide 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. SYNGENTA accepts no liability for any effects due to inadequately cleaned equipment.

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.

SOYBEANS

Table 5

BroadAxe XC Herbicide Use Rate Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fl oz/A BroadAxe XC Herbicide**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	19-25	25-32	25-32
1.5-3	25	25-32	25-32
>3	25	25-32	32-38.7
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.			

Weeds Controlled

The following is a general list of weeds for which BroadAxe XC Herbicide has shown control or suppression. The level of control will vary per use rate, cropping system, environmental conditions, moisture levels and soil type. BroadAxe XC Herbicide may not control all of the weeds listed under all crop conditions.

Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, spiny	*Amaranthus, spinosus*
Amaranth, spleen	*Amaranthus dubius*
Barnyardgrass	*Echinochloa crus-galli (L.) Beauv.*
Broadleaf signalgrass	*Urochloa platyphylla (Nash) R. D. Webster*
Copperleaf, hophornbeam	*Acalypha ostryifolia Riddell*
Crabgrass spp.	*Digitaria spp.*
Crowfootgrass	*Dactyloctenium aegyptium (L.) Willd.*
Cupgrass, Prairie	*Eriochloa contracta Hitchc.*
Cupgrass, Southwestern	*Eriochloa acuminata (J. Presl) Kunth*
Fall Panicum	*Panicum dichotomiflorum Michx.*
Florida Pusley	*Richardia scabra L.*
Foxtail, Giant	*Setaria faberi Herrm.*
Foxtail, Green	*Setaria viridis (L.) Beauv.*
Foxtail, Robust	*Setaria viridis var. robusta*
Foxtail, Yellow	*Setaria glauca (L.) Beauv.*
Foxtail, bristly	*Setaria verticillata (L.) Beauv.*
Goosegrass	*Eleusine indica (L.) Gaertn.*
Groundcherry, cutleaf	*Physalis angulata L.*
Hairy galinsoga	*Galinsoga ciliata (Raf.) Blake*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia (L.) Schrad.*
Lambsquarters, common	*Chenopodium album*
Morningglory, entireleaf	*Ipomea hederacea integriusc*
Morningglory, ivyleaf	*Ipomea hederacea hederacea*
Morningglory, Palmleaf	*Ipomea Wrightii*
Morningglory, pitted	*Ipomoea lacunosa L.*
Morningglory, purple	*Ipomea turbinate*
Morningglory, red	*Ipomea coccinea*
Morningglory, scarlet	*Ipomea hederifolia*
Morningglory, small flower	*Jacquemontia tamnifolia (L.) Griseb.*
Morningglory, tall	*Ipomea, purpurea*
Nightshade, black	*Solanum nigrum*
Nightshade, eastern black	*Solanum americanum*

continued...

Table 5 *(continued)*

Pigweed, red root	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Pigweed, spiny	*Amaranthus*
Sida, prickly	*Sida spinosa L.*
Smartweed, Pennsylvania (seedling)	*Polygonum pensylvanicum L.*
Star of Bethlehem	*Ornithogalum umbellatum L.*
Texas panicum	*Panicum texanum L*
Thistle, Russian	*Salsola tragus L.*
Tropical Spiderwort	*Commelina benghalensis L.*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Witch grass	*Panicum capillare L.*
SEDGES (suppression only)	
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, annual	*Cares spp.*

Fall Applications

BroadAxe XC Herbicide may be applied as a fall treatment to the stubble of harvested crops for preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of BroadAxe XC Herbicide must be made in weed control programs that include, as needed, spring application of preplant, preemergence or postemergence herbicides for the following crop season. Applications to ridge till production systems must be made after the formation of ridges or bedded. Apply when the sustained soil temperature at a 4-inch depth is less than 55 degrees F and falling.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

For Fall Application:

- Apply after September 30 in ND, SD, MN, WI and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.
- Do not make fall applications south of Interstate 70.

Early Preplant, Preplant Incorporated, and Preemergence Applications (Spring Applications)

Use on medium to fine soils with minimum tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. BroadAxe XC Herbicide can be applied Early Preplant, Preplant Incorporated or Preemergence up to 3 days after planting but prior to emergence. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. BroadAxe XC Herbicide applied near or after crop emergence may cause severe injury to the crop. BroadAxe XC Herbicide can be applied alone or in combination with other soybean herbicides, including those containing sulfentrazone, as long as the sulfentrazone active ingredient rate does not exceed 0.375 lb ai/A per 12 month period. Do not apply more than 2.387 lb ai/A *S*-metolachlor per 12 month period. BroadAxe XC Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. When using BroadAxe XC Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds. Apply on coarse soils no more than 2 weeks prior to planting.

Precautions

- When applying BroadAxe XC Herbicide with other registered herbicides, refer to specific label information on precautions, restrictions, instructions, limitations, application methods and timings, and weeds controlled.

Restrictions

- Do not apply more than 38.7 fl oz/A of BroadAxe XC Herbicide per twelve-month period.
- Do not apply more than 0.375 lb ai/A sulfentrazone total per twelve-month period.
- The twelve-month period is considered to begin upon the initial Broadaxe XC Herbicide application.
- Do not graze or feed treated soybean forage, hay or straw to livestock for 30 days after treatment.
- Do not use on soils classified as sand, which have less than 1% organic matter.
- Do not apply to frozen soils or existing snow cover to prevent BroadAxe XC Herbicide runoff from rain or snowmelt that may occur following application.
- Do not apply after crop seed germination.

SUNFLOWERS

Table 6

BroadAxe XC Herbicide Use Rate (Sunflowers) Preemergence and Preplant Incorporated Applications			
Broadcast Rate	**Fl oz/A BroadAxe XC Herbicide**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	19-21	19-25	21-30
1.5-3.0	19-25	21-32	25-32
>3	21-25	25-32	32-38.7
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories For soils with pH >7.2 use the **lowest rate** for that specific soil texture and organic matter.			

Weeds Controlled

When applied according to directions in sunflower, BroadAxe XC Herbicide will provide control of:

Amaranth, Palmer	Thistle, Russian
Kochia (ALS and Triazine Resistant)	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Morningglory, ivyleaf	Barnyardgrass
Morningglory, tall	Fall Panicum
Nightshade, Eastern black	Foxtail, giant
Nightshade, black	Foxtail, green
Pigweed, red root	Foxtail, yellow
Pigweed, smooth	Witch grass

Note: Partial control will occur under dry conditions, under heavy pest pressure or at low use rates under 26 fl oz. Under these conditions plan to use a labeled post-emergence herbicide for improved control.

Preemergence (Spring Applications)

BroadAxe XC Herbicide can be applied preemergence up to 3 days after planting as a soil surface application if seedlings have not broken the soil surface and if the seed furrow is completely closed and completely covered with soil. Adequate moisture (1/2″ to 1″) is required for herbicide activation from rainfall or irrigation. If adequate moisture is not received within 7 to 10 days after the BroadAxe XC Herbicide treatment, a shallow incorporation (less than 2 inches) may be needed to obtain desired weed control. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2″ to 1.0″) is not received BroadAxe XC Herbicide will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced. If applying on coarse soils with less than 1.5% organic matter, wait a minimum of 7 days after application before planting.

If weeds are emerged at the time of BroadAxe XC Herbicide application, use a labeled burndown herbicide such as Aim herbicide, glyphosate or paraquat at the full-labeled rate in combination with BroadAxe XC Herbicide as needed.

Spring Preplant Incorporated (PPI)

When planting into soil treated preplant with BroadAxe XC Herbicide minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. BroadAxe XC Herbicide can be applied as a Preplant Incorporated treatment in the spring up to 2 weeks prior to planting in reduced and conventional tillage sunflowers. BroadAxe XC Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating BroadAxe XC Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 6 above for the soil texture, soil organic matter, and soil pH level.

Precautions

- Plant sunflowers 1.5″ deep and completely cover with soil.
- Adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.2 or higher, or on highly eroded soils, hilltops, or in areas of calcareous outcroppings. BroadAxe XC Herbicide use rates should be reduced to 14 fl oz in those areas or not applied in these areas at all. Inadequate seed furrow closure or shallow planting (less than 1.5 inch) may result in undesirable crop response and this product should not be applied. Poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of BroadAxe XC Herbicide and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, BroadAxe XC Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with BroadAxe XC Herbicide. Consult seed companies and university or extension weed management personnel for additional information on specific local varieties or cultivars and any other pertinent information on BroadAxe XC Herbicide under specific local conditions.

Restrictions

- Do not apply more than 38.7 fl oz/A of BroadAxe XC Herbicide per twelve-month period.
- Do not apply herbicides containing sulfentrazone to sunflowers if BroadAxe XC Herbicide has been previously applied within the same twelve-month period.
- The twelve-month period is considered to begin upon the initial Broadaxe XC Herbicide application.
- Do not apply to frozen soils or existing snow cover to prevent BroadAxe XC Herbicide runoff from rain or snowmelt that may occur following application.
- Do not allow livestock to graze or feed in treated area.
- Do not apply after crop seed germination.
- Do not use on soils classified as sand, which have less than 1% organic matter.

DRY SHELLED PEAS

Blackeyed pea, cowpea, crowder pea, southern pea, pea (*Pisum*) (includes field pea and chickpea) and pigeon pea.

Table 7

BroadAxe XC Herbicide Use Rate (Dry Shelled Peas) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fl oz/A BroadAxe XC Herbicide**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	Do not use	19-26	19-26
1.5-3.0	19-26	21-32	26-32
>3	21-26	26-32	32-38.7
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories For soils with pH >7.2 use the **lowest rate** for that specific soil texture and organic matter.			

Weeds Controlled

The following is a general list of weeds for which BroadAxe XC Herbicide has shown control or suppression. The level of control will vary per use rate, cropping system, environmental conditions, moisture levels and soil type. BroadAxe XC Herbicide may not control all of the weeds listed under all crop conditions. For crops where lower use rates are needed for crop tolerance refer to their specific weed list.

Amaranth, Palmer	Thistle, Russian
Kochia (ALS and Triazine Resistant)	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Morningglory, ivyleaf	Barnyardgrass
Morningglory, tall	Fall Panicum
Nightshade, Eastern black	Foxtail, giant
Nightshade, black	Foxtail, green
Pigweed, red root	Foxtail, yellow
Pigweed, smooth	Witch grass

Note: Partial control will occur under dry conditions, under heavy pest pressure or at low use rates under 26 fl oz. Under these conditions plan to use a labeled post-emergence herbicide for improved control.

FALL APPLICATION

BroadAxe XC Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. BroadAxe XC Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent BroadAxe XC Herbicide runoff from rain or snow that may occur following application. BroadAxe XC Herbicide may be tank mixed with other labeled herbicides to control emerged weeds. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received BroadAxe XC Herbicide will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced. Fall application of BroadAxe XC Herbicide may require a follow up grass herbicide treatment as grass escapes may occur.

BroadAxe XC Herbicide should be applied when the sustained soil temperature is 55°F and falling at a soil depth of 4 inches. Applications to ridge till production systems must be made after the formation of ridges or bedded.

For Fall Application:

- Apply after September 30 in ND, SD, MN and WI and north of Route 30 in IA.
- Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- Apply after October 31 north of Route 136 in IL.

BroadAxe XC Herbicide can be tank mixed with other labeled herbicides. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Early Preplant and Preemergence (Spring Applications)

BroadAxe XC Herbicide can be applied early preplant or preemergence up to 3 days after planting if seedlings have not broken the soil surface and if the seed furrow is completely closed and completely covered with soil. Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the BroadAxe XC Herbicide treatment, a shallow incorporation (less than 2 inches) may be needed to obtain desired weed control. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received BroadAxe XC Herbicide will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

If weeds are emerged at the time of BroadAxe XC Herbicide application, use a burndown herbicide such as AIM herbicide, glyphosate or paraquat at the full-labeled rate in combination with BroadAxe XC Herbicide as needed.

Preplant Incorporated (PPI)

BroadAxe XC Herbicide can be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry peas. BroadAxe XC Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating BroadAxe XC Herbicide deeper than 2 inches can result in inconsistent weed control. Minimize furrow and ridge formation in the tillage operations. Use the appropriate rate from Table 7 above for the soil texture, soil organic matter, and soil pH level.

Precautions

- Under extended periods of dry weather, adequate weed control may not be achieved. Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the BroadAxe XC Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is not received a planned post-emergence application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1") is not received BroadAxe XC Herbicide will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

- Adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.2 or higher, or on highly eroded soils, hilltops, or in areas of calcareous outcroppings. BroadAxe XC Herbicide use rates should be reduced to 13 fl oz in those areas or not applied in these areas at all. Inadequate seed furrow closure or shallow planting (less than 1.5 inch) may result in undesirable crop response and this product should not be applied. Poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of BroadAxe XC Herbicide and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, BroadAxe XC Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled, Crop Liability Disclaimer and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with BroadAxe XC Herbicide. Consult seed companies and university or extension weed management personnel for additional information on specific local varieties or cultivars and any other pertinent information on BroadAxe XC Herbicide under specific local conditions.

Restrictions

- Do not apply more than 38.7 fl oz/A of BroadAxe XC Herbicide per twelve-month period.
- Do not apply additional sulfentrazone containing products to dry peas if BroadAxe XC Herbicide has been previously applied within the same twelve-month period.
- The twelve-month period is considered to begin upon the initial Broadaxe XC Herbicide application.
- Do not apply after crop emerges, or if the seedling is close to the soil surface.
- Do not incorporate to depths greater than 2 inches.
- Do not apply to frozen soils or to existing snow cover to prevent BroadAxe XC Herbicide runoff from rain or snow melt that may occur following application.
- Do not use on soils classified as sand, which have less than 1% organic matter.
- Do not use for forage within 60 days after an application of BroadAxe XC Herbicide.
- Do not cut for hay within 120 days after an application of BroadAxe XC Herbicide.

HORSERADISH

Apply a single application of BroadAxe XC Herbicide at a broadcast rate of 19-25 fl oz/A to the soil surface after planting but before weed or crop emergence. Use listed lower rates on soils relatively coarse-textured and listed higher rates on fine textured soils.

Apply in at least 10 gallons per acre finished spray solution by ground.

Following the application of BroadAxe XC Herbicide to soil, germinating seeds and seedlings take up BroadAxe XC Herbicide from the soil solution. The amount of BroadAxe XC Herbicide in soil solution available for weed uptake is determined primarily by soil type, soil organic matter and soil pH. Similar to other herbicides, BroadAxe XC Herbicide adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Adequate moisture is required for herbicide activation (1/2" to 1" of rainfall or irrigation). If an activating rainfall (1/2" to 1") is not received BroadAxe XC Herbicide will provide a reduced level of control of susceptible germinating weeds.

Weeds Controlled:

The following is a general list of weeds for which BroadAxe XC Herbicide has shown control or suppression. The level of control will vary per use rate, cropping system, environmental conditions, moisture levels and soil type. BroadAxe XC Herbicide may not control all of the weeds listed under all crop conditions. For crops where lower use rates are needed for crop tolerance refer to their specific weed list.

Table 8

amaranth, palmer	morningglory, smallflower
barnyardgrass	nightshade, black
fall panicum	nightshade, eastern black
foxtail, giant	Pennsylvania smartweed
foxtail, green	pigweed, red root
foxtail, yellow	pigweed, smooth
morningglory, entireleaf	waterhemp, common
morningglory, ivyleaf	waterhemp, tall
morningglory, pitted	

RESTRICTIONS:

- Do not exceed 25 fl oz/A per twelve-month period.
- The twelve-month period is considered to begin upon the initial Broadaxe XC Herbicide application.
- Do not use on soils classified as sand, which have less than 1% organic matter.
- Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.
- Harvest horseradish at normal timing.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store product in original container only, away from other pesticides, fertilizer, food or feed. Do not use or store around the home.

Avoid storage below 32°F. Product that has been frozen should be thawed and recirculated prior to its use. Store in a cool, dry place and avoid excess heat.

In Case of Spill

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

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

Waste resulting from the use of this product must be disposed of at an approved waste disposal facility.

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. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures allowed by state and local authorities.

(For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins 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. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures allowed by state and local authorities.

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. For final disposal, offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures allowed by state and local authorities.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

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

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

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

SULFENTRAZONE	GROUP	14	HERBICIDE
S-METOLACHLOR	GROUP	15	HERBICIDE

BroadAxe® XC
Herbicide

Active Ingredient:	By Wt.
Sulfentrazone	7.55%
S-metolachlor	68.25%
Other Ingredients:	24.20%
Total:	100.00%

Contains a total of 7.0 lb/gal which include 0.7 lb ai sulfentrazone and 6.3 lb ai S-metolachlor per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet.

AGRICULTURAL USE REQUIREMENTS

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

EPA Reg. No. 279-3442-100 EPA Est. 100-NE-001

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 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 treatment advice. **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 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.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact Syngenta Crop Protection 1-800-888-8372 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Avoid contact with skin, eyes or clothing. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Environmental Hazards

This pesticide is toxic to fish and 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.

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

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

BroadAxe XC Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, 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 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.

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

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

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, this product 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.

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

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

Reporting ecological incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-800-888-8372.

Physical/Chemical Hazards

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store product in original container only, away from other pesticides, fertilizer, food or feed. Do not use or store around the home.

Avoid storage below 32°F. Product that has been frozen should be thawed and recirculated prior to its use. Store in a cool, dry place and avoid excess heat.

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Manufactured for:
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Greensboro, North Carolina 27419-8300

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2.5 gallons Net Contents

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