U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W.	EPA Reg. Number: 94730-23	Date of Issuance:	
Washington, D.C. 20460	94730-23	10/18/21	
NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration	Term of Issuance: Unconditional		
(under FIFRA, as amended)	Name of Pesticide Product: GCS ATRAZINE 45% SC		
Name and Address of Registrant (include ZIP Code):	00011110		
Ogongi Ogongi- Authorized Agent Generic Crop Science, LLC			
c/o Wagner Regulatory Associates, Inc. P.O. Box 640, 7217 Lancaster Pike, Suite A Hockessin, DE 19707			
<b>Note:</b> Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.			
On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.			
Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.			
This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:			
1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.			
Signature of Approving Official:	Date:		
Emily Schmid			

Emily Schmid, Product Manager 25 Herbicide Branch, Registration Division (7505P)

10/18/21

Page 2 of 2 EPA Reg. No. 94730-23 Decision No. 570799

EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 94730-23."
- 3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 10/04/2021
- Alternate CSF 1 dated 10/04/2021
- Alternate CSF 2 dated 10/04/2021
- Alternate CSF 3 dated 10/04/2021

If you have any questions, please contact Aleah Holt at 703-347-0482 or by email at holt.aleah@epa.gov.

Enclosure

[MASTER LABEL]

## **RESTRICTED USE PESTICIDE**

## (GROUND AND SURFACE WATER CONCERNS)

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water.

> ATRAZINE GROUP 5 HERBICIDE

# GCS Atrazine 45% SC

# ABN: Willowood Atrazine 45% SC; ABN: GCS Atrazine 4L

For Season-Long Weed Control in Corn and Sorghum.

For Weed Control in [Corn] [Sorghum] [Sorghum Sudan Hybrids] [Grain Sorghum] [Winter Weeds] [Chemical Fallow [Sugarcane] [Turfgrasses] [Macadamia Nuts] [Guava].

ACTIVE INGREDIENT:	WT. BY %
Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)*	45.45%
OTHER INGREDIENTS:	<u>54.55%</u>
TOTAL:	
*CAS No. 1912-24-9	

This product contains 4 lbs. of atrazine per gallon.

# **KEEP OUT OF REACH OF CHILDREN** CAUTION/PRECAUCIÓN

	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 a poison control center or doctor.
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> </ul>
	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	Take off contaminated clothing.
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
	HOTLINE NUMBERS
	ontainer or label with you when calling a poison control center or doctor or going for treatment. For 24-Hour
Medical Emergency	Assistance (Human or Animal), call: 1-800-222-1222. For Chemical Emergency Assistance (Spill, Leak, Fire, or
Accident), call CHEN	/ITREC: <b>1-800-424-9300</b>

## NOTE TO PHYSICIAN

There is no specific antidote for atrazine. If this product is ingested, induce emesis or lavage stomach.

[Optional referral statements when booklets and container labels are used:]

[See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements,] [Directions For Use,] and [Storage and Disposal.]]

Manufactured [For] [By]: Generic Crop Science, LLC

1887 Whitney Mesa Dr., #9740 Henderson, NV 89014

[Shake well before using.] [Product of\_\_\_\_]



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

94730-23

EPA Reg. No.: 94730-XX EPA Est. No.: XXXXX-XX-XXX

Net Contents: \_\_\_\_\_ [Gals./L]

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## CAUTION

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing before reuse. 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, shoes plus socks and appropriate chemical and/or water-resistant gloves.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, natural rubber  $\geq 14$  mils, polyethylene, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton  $\geq 14$  mils.

## Applicators using spray equipment mounted on their backs must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant footwear plus socks
- Chemical resistant gloves made of Barrier Laminate, Butyl Rubber ≥14 mils, Nitrile Rubber ≥14 mils, Neoprene Rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton ≥14 mils.
- Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges; OR a NIOSHapproved full face respirator with OV cartridges; OR a gas mask with OV canisters; OR a powered air purifying respirator with OV cartridges.

## Mixers, loaders, all other applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of Barrier Laminate, Butyl Rubber ≥14 mils, Nitrile Rubber ≥14 mils, Neoprene Rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton ≥14 mils.
- Shoes plus socks
- Chemical-resistant apron, when mixing/loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.
- Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges; OR a NIOSHapproved full face respirator with OV cartridges; OR a gas mask with OV canisters; OR a powered air purifying respirator with OV cartridges.

## See ENGINEERING CONTROLS for additional requirements.

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. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **Do not** reuse them.

## **ENGINEERING CONTROLS**

Mixers and loaders supporting aerial applications at a rate greater than 3 lbs. a.i. per acre must use a closed system that meets the requirements for dermal protection listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4)] and must:

- Wear the personal protective equipment (PPE) required for mixers and loaders,
- Wear protective eyewear if the system operates under pressure, and
- Be provided and have immediately available for use in an emergency, such as a spill or equipment breakdown: chemical resistant footwear.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators, however, they need not wear chemical resistant gloves when using an enclosed cockpit.

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240 (d)(5)] for dermal protection.

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## Users should:

## USER SAFETY RECOMMENDATIONS

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

## **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to aquatic invertebrates. **Do not** apply directly to water, to areas where water is present or to intertidal areas below the mean high-water mark. **Do not** apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. **Do not** contaminate water when disposing of equipment washwaters or rinsate.

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

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

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

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

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

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

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

## **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.

Any use of this product in an area where use is prohibited is a violation of federal law. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info], or [1-866-365-3014]. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Generic Crop Science, LLC for a refund.

## Endangered Species

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 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, greenhouses, and handlers of

agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

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

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
- Shoes plus socks
- Chemical resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils, or Viton ≥14 mils.
- Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges; OR a NIOSHapproved full face respirator with OV cartridges; OR a gas mask with OV canisters; OR a powered air purifying respirator with OV cartridges.

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, and greenhouses.

**Do not** enter or allow others to enter until sprays have dried.

## **PRODUCT INFORMATION**

GCS Atrazine 45% SC controls many annual broadleaf and grass weeds in corn, sorghum, sugarcane, and certain other crops specified on this label. It is also effective in industrial sites for control of most annual and many perennial broadleaf and grass weeds. GCS Atrazine 45% SC may be applied before or after weeds emerge.

Since this product acts mainly through root absorption, its effectiveness depends on moisture to move it into the root zone. If weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

## **Use Restrictions:**

- Chemigation Prohibition: Do not apply this product through any type of irrigation system.
- Do not apply to humans or animals. Flagmen and loaders must avoid inhalation of spray mist and prolonged contact with skin.
- To avoid spray drift, do not apply under windy conditions. Avoid spray overlap as crop injury may result.
- When tank mixing or sequentially applying atrazine or products containing atrazine to corn or sorghum, the total pounds of atrazine applied must not exceed 2.5 pounds active ingredient (a.i.) per acre per year.
- When tank-mixing or sequentially applying atrazine or products containing atrazine to crops other than corn or sorghum, the total pounds of atrazine applied (lbs. a.i. per acre) must not exceed the specific seasonal rate limits as noted in the use directions.
- Do not apply atrazine and propazine products to the same sorghum acre.
- Not for use in the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands.
- Use on roadsides; Conservation Reserve Program (CRP) land; conifers, including Christmas Tree plantings; timber; forestry; and, Miscanthus and other perennial bioenergy crops is prohibited.
- Users must only apply to fallow land in the following states according to the prescribed rotation pattern in the table below:

Fallow Rotation Pattern	Fallow Use Authorized in these States only
Wheat-Corn-Fallow	CO, KS, ND, NE, SD & WY
Wheat-Fallow	CO, KS, ND, NE, SD & WY
Wheat-Sorghum-Fallow	AR, CO, GA, IL, KS, LA, MS, MO, NE, NM, NC, OK, SD & TX

## **Use Precautions:**

- 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.
- This product is nonflammable.
- Avoid using near adjacent desirable plants or in greenhouses, or injury may occur.
- Where the use directions give a range of rates, use the lower rate on coarse-textured soil and soil low in organic matter; use the higher rate on fine-textured soil and soil high in organic matter.
- Generic Crop Science, LLC does not recommend applications in combination with other herbicides or oils, except as specifically described on this label.

#### WEED RESISTANCE MANAGEMENT

For resistance management, **GCS Atrazine 45% SC** is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to **GCS Atrazine 45% SC** and other Group 5 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

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

- Rotate the use of **GCS Atrazine 45% SC** or other Group 5 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.
- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- 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.
- To the extent possible, do not allow weed escapes to produce seeds, roots, or tubers. Manage weed seeds at harvest and postharvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weedcontrol program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- 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 after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
  - 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;
  - 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 advisor, and/or manufacturer for insecticide resistance management and/or IPM guidance for the specific site and resistant pest problems.
- Report lack of performance to your local Generic Crop Science LLC or representative.

## MANDATORY SPRAY DRIFT MANAGEMENT

## **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.
- For all other applications, applicators are required to select a nozzle and pressure combination that delivers coarse or coarser droplets (ASABE S572).
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 miles per hour at the application site. If the windspeed is greater than 10 miles per hour, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, 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.
- User must maintain a 150 foot (46 meter) in-field downwind buffer (in the direction in which the wind is blowing) from the

edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.

#### Ground Boom Applications:

- User must only apply with the release height specified by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select a nozzle and pressure that deliver coarse or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- User must maintain a 15 foot (4.6 meter) in-field downwind buffer (in the direction in which the wind is blowing) from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.

## **Boomless Ground Applications:**

- Applicators are required to use a coarse or coarser droplet size (ASABE S572) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- User must maintain a 15 foot (4.6 meter) in-field downwind buffer (in the direction in which the wind is blowing) from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.

## **SPRAY DRIFT ADVISORIES**

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

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

#### Importance of 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.

## **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.

#### **Sensitive Areas**

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

#### **Boomless Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### Handheld Technology Applications:

Take precautions to minimize spray drift.

#### **APPLICATION INSTRUCTIONS**

#### **Ground Applications**

Use conventional ground sprayers equipped with nozzles that provide accurate and uniform application. Be certain that nozzles are uniformly spaced and are the same size. Calibrate sprayer before use and recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 10 gallons of spray mixture per acre for all pre-plant incorporated, pre-plant surface, pre-emergence, and post-emergence applications (with or without oil or surfactant) with ground equipment.

Use a pump with capacity to (1) maintain 35 – 40 PSI at nozzles, (2) provide sufficient agitation in tank to keep mixture in suspension, and (3) to provide a minimum of 20% bypass at all times. Use centrifugal pumps which provide propeller shear action for dispersing and mixing **GCS Atrazine 45% SC**. The pump should provide a minimum of 10 gallons/minute/100 gallons tank size circulated through a correctly positioned sparger tube or jets.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's specifications.

#### **Aerial Applications**

Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 qt. of water for each quart **GCS Atrazine 45% SC** applied per acre. For post-emergence treatments on corn and sorghum, apply rate in a minimum of 2 gals. of water per acre. Do not apply under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Do not apply to humans or animals. Flagmen and loaders must avoid inhalation of spray mist and prolonged contact with skin.

#### For Band Applications

Calculate amount to be applied per acre as follows:

Band Width in Inches	v	Broadcast Rate per Acre	_	Amount needed per Acre of Field
Row Width in Inches	~	bioadcast Nate per Acre	-	Amount needed per Acre of field

## MIXING 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.

#### **Application in Water or Liquid Fertilizer**

Fertilizer solution or fluid fertilizer may replace all or part of the water as a carrier for pre-emergence, pre-plant incorporated, or preplant surface ground application on corn and sorghum. Check the compatibility of this product with fluid fertilizer and or fertilizer solution as shown below before use. Do not apply in nitrogen solution or complete liquid fertilizer after corn or sorghum emerges or crop injury may occur.

## **Compatibility Test**

Since liquid fertilizers can vary, even within the same analysis, always check compatibility with herbicide(s) each time before use. Be especially careful when using complete suspension or fluid fertilizers, as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gallons per acre.

For other spray volumes, make appropriate changes in the amounts of ingredients. Check compatibility using this procedure:

- 1. Add 1 pint of liquid carrier (water, fertilizer suspension or solution) to each of two (2) one-quart jars with tight lids.
- 2. To **one** of the jars add ¼ teaspoon (1.2 milliliters) of a compatibility agent approved for this use, including Compex<sup>®</sup> or Unite<sup>®</sup> (¼ teaspoon in 1 quart of compatibility test mixture is equivalent to approximately 2 pints per 100 gallons of spray mixture). Shake or stir gently to mix.
- 3. To both jars add the appropriate amount of herbicide(s) intended to be tank mixed. If more than 1 type of formulation is to be used, first add dry product(s), then flowables or liquid suspension concentrates, and emulsifiable concentrates last. After each addition, shake or stir the mixture gently to thoroughly mix. The appropriate amount of each pesticide to be used for this test is as follows:
  - Dry Products: For each pound to be applied per acre, add approximately 1.5 level teaspoons to each jar.

- Liquid Products: For each pint to be applied per acre, add 0.5 teaspoon (2.5 milliliters) to each jar.
- 4. After adding all ingredients, put lids on and tighten, then invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film in the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the contents of the 2 jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility:
  - Slurry the dry pesticide(s) in water before addition; or
  - Add half of the compatibility agent to the fertilizer and the other half to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If non-compatibility is still observed, do not use the mixture.

## Application in Water plus Emulsifiable Oil or Oil Concentrate

Adding emulsifiable oil (petroleum-derived, or single or mixed crop-derived oil concentrate) to post-emergence water-based sprays in corn and sorghum may improve weed control. However, under certain conditions the use of either type of oil may seriously injure the crop. To minimize this possibility, use a suitable crop oil concentrate containing at least 1% but not more than 20% suitable emulsifier or surfactant blend, or use a petroleum-derived oil containing at least 1% suitable emulsifier.

**Note:** In the event of a compatibility problem when mixing oil with this product and water, a compatibility agent should be used. When an adjuvant is to be used with this product, Generic Crop Science, LLC recommends the use of Compex<sup>®</sup>, Unite<sup>®</sup>, or a Council of Producers and Distributors of Agrotechnology (CPDA) certified adjuvant. Any of the above oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

## Mixing Procedures – All Uses

- 1. Be sure sprayer is clean and not contaminated with any other materials, otherwise crop injury or sprayer clogging may result.
- 2. Fill tank ¼ full with liquid spray carrier (clean water, nitrogen solution, or complete liquid fertilizer).
- 3. Start agitation, then be certain that agitation is working sufficiently to create a rippling or rolling action on the water surface.
- 4. Transfer directly into the tank the proper amount of **GCS Atrazine 45% SC** according to the area to be treated.
- 5. Continue filling the tank with liquid spray carrier until 90% full. Increase agitation as tank fills if necessary to maintain efficient mixing of tank contents.
- 6. If using emulsifiable oil, oil concentrate, or other pesticides after this product is thoroughly suspended.
- 7. Finish filling the tank.
- 8. When applying to the area to be treated, maintain agitation to avoid separation of tank contents, and empty tank as completely as possible before re-filling in order to prevent buildup of oil or emulsifiable concentrate residue
- 9. If an oil or emulsifiable concentrate film starts to build up in the tank, drain it and clean with strong detergent solution or solvent.
- 10. Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

Within rate ranges in all tables on this label, use the lower rate on soil relatively course-textured or low in organic matter; use the higher rate on soil relatively fine-textured or high in organic matter.

## **ROTATIONAL CROPS – All Uses**

- Do not rotate to any crop except corn or sorghum until the following year, or injury may occur.
- If applied after June 10<sup>th</sup>, do not rotate with crops other than corn or sorghum the next year or crop injury may occur.
- In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use this product to control weeds in Corn or Sorghum only when Corn or Sorghum is to follow Corn or Sorghum, or a crop of untreated Corn or Sorghum is to precede other rotational crops.
- In eastern parts of the Dakotas, Kansas, western Minnesota, and Nebraska, do not rotate to soybeans if the rate applied to corn or sorghum was more than 4 pts. (2 lbs. a.i.) per acre or equivalent band application rate, or soybean injury may occur.
- Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer.
- Do not plant sugar beets, tobacco, vegetables (including dry beans), Spring-seeded small grains, or small-seeded legumes and grasses the year following application, or injury may occur.

## SPECIFIC USE DIRECTIONS

## GCS ATRAZINE 45% SC APPLIED ALONE - CORN OR GRAIN SORGHUM\*

The maximum application rate of corn and sorghum is 5 pts. (2.5 lbs. a.i.) of **GCS Atrazine 45% SC** per acre per calendar year. Application for quackgrass suppression in corn and sorghum are restricted to a Spring application only. No Fall applications are permitted. Post-emergence application to corn and sorghum must be made before corn and sorghum reaches 12" in height.

## TABLE 1 - GCS Atrazine 45% SC Applied Alone - Corn or Grain Sorghum

TADLE I - OCJ ALIAZINE 43/0 JC A	pplied Alone - corn of dra		
Pr	e-Plant Surface-Applied, P	re-Plant Incorporated, or Pre-E	mergence
(or Post	Emergence at 4 pts. (2 lbs	. a.i.) of GCS Atrazine 45% SC pe	er acre with Oil)
Broadleaf and Grass Weeds Controlled			
Barnyard Grass (Watergrass)**	Foxtail (Yellow)**	Morningglory (Annual)	Ragweed
Cocklebur*	Groundcherry	Mustards	Sicklepod*
Crabgrass, Large (Hairy) *	Jimsonweed	Nightshade	Velvetleaf (Buttonweeed)**
Foxtail (Giant)*	Kochia	Pigweed	Wild Oats
Foxtail (Green)**	Lambsquarters	Purslane	Witchgrass (Panicum capillare)**

#### Post-Emergence with Emulsifiable Oil or Oil Concentrate in Water (2 pts. Emulsifiable Oil or Oil Concentrate + 2.4 pts. (1.2 lbs. a.i.) of GCS Atrazine 45% SC per acre)

Broadleaf Weeds Controlled			
Cocklebur	Morningglory (Annual)	Ragweed	Velvetleaf (Buttonweeed)**
Jimsonweed	Mustards	Smartweed	Wild Buckwheat
Lambsquarters	Pigweed		
Note: Where there are State/local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are			
different from the label, the more restrictive/protective requirements apply. Certain states may have established rate limitations within specific			

different from the label, the more restrictive/protective requirements apply. Certain states may have established rate limitations within specific geographical areas. Consult your State lead pesticide control agency for additional information. It is a violation of this label to deviate from State use regulations.

\*Partial control only.

\*\*Partial control only on medium- and fine-textured soils.

## **Restrictions - For All Applications to Corn:**

To avoid crop injury and illegal residues, Do not apply more than 5 pts. (2.5 lbs. a.i.) of GCS Atrazine 45% SC per acre per calendar year

CORN

- Pre-harvest interval (PHI): When tank-mixing or sequentially, **Do not** graze or feed forage from treated areas for 60 days for field corn, and 45 days for sweet corn, following application or illegal residues may result.
- When tank-mixing or sequentially applying atrazine or products containing atrazine to corn, **Do not** exceed an application rate of 4 pts. (2 lbs. a.i.) per acre for any single application, and the total pounds of atrazine applied must not exceed 2.5 lbs. per acre per year.
- When tank mixing or sequentially applying atrazine or products containing atrazine to crops other than corn or sorghum, the total pounds of atrazine must not exceed the specific seasonal rate limits as noted in the use directions.
- Do not apply via mechanically pressurized handguns.

## **Precautions - For All Applications to Corn:**

- For best control of velvetleaf and cocklebur, the application rate cannot be less than 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre, either alone or in tank mix combinations.
- Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in Fall or Spring to minimize possible injury to Spring-seeded rotational crops, regardless of rate used.

#### Pre-Plant Surface-Applied (Broadleaf and Grass Control)

Use on medium- and fine-textured soil with minimum-tillage or no-tillage systems only in Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming. Apply the rate of **GCS Atrazine 45% SC** shown in **TABLE 2** up to 45 days prior to planting. On coarse-textured soils, apply within 2 weeks prior to planting. If an unsatisfactory length of weed control results from adverse environmental conditions following early treatment, a follow-up application of an appropriately labeled herbicide may be used. If the follow-up treatment includes atrazine, follow the labeled rate for corn indicated in **TABLE 2**.

If weeds are present at the time of treatment, apply in tank mixture combination with a contact herbicide (for example, paraquat or glyphosate). 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.

**Note:** To the extent possible, avoid moving treated soil out of the row or moving untreated soil to the surface during planting, or weed control will be diminished.

#### Pre-Plant Incorporated (Broadleaf and Grass Control)

Broadcast in Spring after plowing at rate in **TABLE 2**. Apply to the soil and incorporate before, during, or after final seedbed preparation. Avoid deep incorporation. For best results, apply within 2 weeks prior to planting.

## Pre-Emergence or At-Planting (Broadleaf and Grass Control)

Apply during or shortly after planting before weed emergence at rate in TABLE 2.

## **Post-Emergence (Broadleaf and Grass Control)**

Apply before weeds exceed 1.5" in height, and before corn exceeds 12" in height at rate in TABLE 2.

## TABLE 2 - Broadleaf and Grass Weed Control on Corn\*

For All Soil Applications Prior to Crop Emergence - Maximum broadcast application rates for corn must be as follows:

- On Highly Erodible Soils (as defined by NRCS): If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at-planting, apply a maximum of 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre as a single pre-emergence application. If the soil coverage with plant residue is less than 30% at-planting, a maximum of 3.2 pts. (1.6 lbs. a.i.) of GCS Atrazine 45% SC per acre as a single pre-emergence application; or 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre if only applied post-emergence.
- On Soils Not Highly Erodible: Apply a maximum of 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre as a single pre-emergence application.

**For Post-Emergence Application:** If no atrazine was applied prior to corn emergence, apply a maximum of 4 pts. (2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre) broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 5 pts. (2.5 lbs. a.i.) of **GCS Atrazine 45% SC** per acre per calendar year.

\*Broadleaf Control (eastern Colorado, western Kansas, western Nebraska, New Mexico, Oklahoma Pan Handle, west Texas, and eastern Wyoming): On sand, loamy sand, sandy loam, mild to strongly alkaline soil, and all recently leveled soil, apply no more than 2.4 pts. (1.2 lbs. a.i.) of GCS Atrazine 45% SC per acre, either pre-plant surface, pre-plant incorporated, or pre-emergence. On other soils in these areas, apply rate in TABLE 2 for broadleaf and grass control.

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

## POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER

Add the following volume of 1 of the type oils indicated for aerial or ground application unless the oil label specifies otherwise:

Type Oil	Ground Application per Acre	Aerial Application per Acre
Oil Concentrate (Crop or Petroleum-derived)	1 qt.	0.5 - 1 qt.
Petroleum-derived oil	1 gal.	2 qts.

**Note:** Crop-derived or petroleum-derived oil concentrates should contain at least 1%, but not more than 20%, suitable emulsifier or surfactant blend. Petroleum-derived oils should contain at least 1% suitable emulsifier.

## **Broadleaf and Grass Control**

For post-emergence control of those weeds listed in **TABLE 1** under **Pre-Plant Surface-Applied**, **Pre-Plant Incorporated**, or **Pre-Emergence**, broadcast 4 pts. (2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre plus emulsifiable oil or oil concentrate after weed emergence, but before weeds reach 1.5" in height and before corn exceeds 12" in height.

## **Broadleaf Control**

For post-emergence control of those weeds listed in **TABLE 1** under **Post-Emergence with Emulsifiable Oil or Oil Concentrate in Water**, broadcast 2.4 pts. (1.2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre plus emulsifiable oil or oil concentrate before pigweed and lambsquarters reach 6" in height and before all other weeds reach 4" in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

## Restrictions - For Applications with Emulsifiable Oil or Oil Concentrate in Water:

- Do not apply more than 5 pts. (2.5 lbs. a.i.) of GCS Atrazine 45% SC per acre per calendar year.
- Post-emergence applications to corn must be made before crop reaches 12" in height.
- To avoid crop injury, **Do not** apply when crop is under stress from prolonged cold, wet weather, poor fertility, or other factors, or when crop is wet and succulent from recent rainfall.

## Precautions - For Applications with Emulsifiable Oil or Oil Concentrate in Water:

- Inbred lines or any breeding stock may be severely injured by applications with emulsifiable oil or oil concentrate.
- Adding other insecticides, herbicides, liquid fertilizers, or other materials is not recommended, because they may cause compatibility problems or crop injury.
- Store and handle emulsifiable oil and oil concentrate carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.

## TANK MIXTURES FOR CORN

GCS Atrazine 45% SC may be tank mixed with products containing the following herbicides for control of certain broadleaf and grass weeds in corn.

Metolachlor*	Metolachlor + Simazine + Glyphosate	Paraquat
Metolachlor + Paraquat	Propachlor	Simazine
Metolachlor + Glyphosate	Alachlor	Simazine + Paraquat
Metolachlor + Simazine	Alachlor + Glyphosate	Simazine + Glyphosate
Metolachlor + Simazine + Paraquat	Alachlor + Paraquat	Glyphosate
	Propachlor	Butylate
*Includes metolachlor and s-metolachlor.	·	·

Use tank mix directions appearing on the labels of the above herbicides when tank mixing with **GCS Atrazine 45% SC**. 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.

When tank mixing or sequentially applying atrazine or products containing atrazine to Corn, **Do not** exceed an application rate of 2 pounds atrazine active ingredient per acre for any single application, and the total pounds of atrazine applied must not exceed 2.5 pounds per acre per year. When tank mixing or sequentially applying atrazine or products containing atrazine to crops other than Corn

or Sorghum, the total pounds of atrazine must not exceed the specific seasonal rate limits as noted in the use directions.

#### Simazine

In addition to the weeds listed in TABLE 1 under Pre-Plant Surface-Applied, Pre-Plant Incorporated, or Pre-Emergence, this combination also controls crabgrass, fall panicum, and carpetweed.

Broadcast tank mix before planting, at-planting, or after planting, but before crop and weeds emerge, at rates in **TABLE 3**. Cultivate shallowly if weeds develop.

#### **Pre-Plant Surface-Applied**

Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems only in Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming. Apply the rate of **GCS Atrazine 45% SC** and simazine shown in **TABLE 3** up to 45 days prior to planting. Refer to the **GCS ATRAZINE 45% SC APPLIED ALONE** section for information if weeds should develop following the early treatment. On coarse-textured soils, apply within 2 weeks prior to planting. Refer to the **Pre-Plant Surface-Applied** information within the **CORN** section for additional details.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

**Note:** To the extent possible, avoid moving treated soil out of the row or moving untreated soil to the surface during planting, or weed control will be diminished.

#### **Pre-Plant Incorporated**

Apply to the soil and incorporate in the Spring before, during or after final seedbed preparation. Avoid deep incorporation. For best results, apply within 2 weeks prior to planting.

#### **Pre-Emergence**

Apply during or shortly after planting, but before crop and weeds emerge.

Refer to CORN sections of this label and to Simazine labels for further directions, limitations, and precautions.

#### TABLE 3 - Tank Mixtures GCS Atrazine 45% SC with Simazine on Corn

Soil Texture	GCS Atrazine 45% SC Broadcast Rate per Acre
Sand, Loamy sand, Sandy loam	2 pts. (1 lb. a.i.) plus the label rate of simazine
Loam, Silt loam, Silt, Clay loam, Sandy clay loam, Silty clay loam, Sandy clay, or Silty clay with low organic matter	2.4 pts. (1.2 lbs. a.i.) plus the label rate of simazine
Loam, Silt loam, Silt, Clay loam, Sandy clay loam, Silty clay loam, Sandy clay, or Silty clay with medium to high organic matter, and Clay (including dark prairie soils of the Corn Belt)	3 pts. (1.5 lbs. a.i.) plus the label rate of simazine

## GCS Atrazine 45% SC plus Simazine plus Glyphosate

Use as tank mixture for pre-emergence and post-emergence control of certain broadleaf and grass weeds where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Refer to glyphosate label for all directions, weeds controlled, precautions, and limitations.

#### GCS Atrazine 45% SC plus Simazine plus Paraquat

Use as tank mixture with simazine and paraquat to kill existing vegetation and for residual weed control where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Add **GCS Atrazine 45% SC** and simazine to water in spray tank, agitating until thoroughly mixed. Then add paraquat and a nonionic surfactant, including X-77<sup>®</sup>. Continue agitation during application. Broadcast 2 - 4 pts. (1 - 2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre, plus the label rate of simazine, plus 0.5 - 0.8 lb. of paraquat cation a.i. in 20 - 60 gals. of water per sprayed acre. Refer to the simazine and paraquat labels for the appropriate rates to utilize in this tank mixture. Apply before, during or after planting, but before corn emerges. Add 0.5 pt. of a nonionic surfactant, including X-77<sup>®</sup>, per 100 gals. of spray mixture. Use the higher rate of paraquat if existing vegetation is 4" - 6" tall. This mixture will not control weeds taller than 6".

Refer to further limitations and precautions on labels for this product, simazine, and paraquat products. 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.

## SORGHUM AND SORGHUM-SUDAN HYBRIDS (GRAIN AND FORAGE TYPES)

## **Restrictions - For All Applications to Sorghum:**

- To avoid crop injury and illegal residues, **Do not** apply more than 5 pts. (2.5 lbs. a.i.) of **GCS Atrazine 45% SC** per acre per calendar year
- Do not exceed a maximum single application rate of 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC and 3.2 pts. (1.6 lb. a.i.) of GCS Atrazine 45% SC on highly erodible soils with < 30% soil cover with plant residues.</li>

- Pre-harvest interval (PHI): **Do not** graze or feed forage from treated areas for 60 days for pre-emergent sorghum, and 45 days for post-emergent sorghum following application.
- When tank-mixing or sequentially applying atrazine or products containing atrazine to sorghum, do not exceed an application rate of 4 pts. (2 lbs. a.i.) per acre for any single application, and the total pounds of atrazine applied must not exceed 2.5 lbs. per acre per year.
- When tank mixing or sequentially applying atrazine or products containing atrazine to crops other than corn or sorghum, the total pounds of atrazine must not exceed the specific seasonal rate limits as noted in the use directions.
- **Do not** apply atrazine and propazine products to the same sorghum acre.
- For all soil applications prior to crop emergence (except for pre-emergence use on bedded sorghum in Arizona and California), Do not apply to coarse-textured soils, i.e., sand, loamy sand, sandy loam, or to medium- and fine-textured soils having less than 1% organic matter, or injury may occur.
- For post-emergence applications, **Do not** apply to sand or loamy sand, or injury may occur.

## Precautions - For All Applications to Sorghum:

- Heavy rain immediately following application tends to cause excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Avoid applying to furrow-planted sorghum until furrows are leveled (plowed in). Level deep planter marks or seed furrows before application.
- Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soil may result in crop injury.
- Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in Fall or Spring to minimize possible injury to Springseeded rotational crops, regardless of rate used.
- Injury may occur if both this herbicide, pre-plant surface, pre-plant incorporated, or pre-emergence, and an at-planting systemic insecticide applied in-furrow are used.

## Pre-Plant Surface-Applied (Broadleaf and Grass Control)

Use on medium- and fine-textured soil with minimum-tillage or no-tillage systems only in Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota, Wisconsin, and Wyoming. Apply the rate of **GCS Atrazine 45% SC** shown in **TABLE 4** up to 45 days prior to planting. If an unsatisfactory length of weed control results from adverse environmental conditions following early treatment, a follow-up application of an appropriately labeled herbicide may be used. If the follow-up treatment includes atrazine, follow the labeled rate for corn indicated in **TABLE 2**. Under dry conditions, irrigation after application is recommended to move **GCS Atrazine 45% SC** into the soil.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). 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.

**Note:** To the extent possible, avoid moving treated soil out of the row or moving untreated soil to the surface during planting, or weed control will be diminished.

## Pre-Plant Incorporated (Broadleaf and Grass Control)

Broadcast in Spring after plowing at rate shown in **TABLE 4**. Apply before, during, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. For best results, apply within 2 weeks prior to planting.

## Pre-Emergence or At-Planting (Broadleaf and Grass Control)

Apply during or shortly after planting but prior to weed or crop emergence at rate shown in TABLE 4.

## Post-Emergence (Broadleaf and Grass Control)

Apply at rate shown in **TABLE 4** before weeds exceed 1.5" in height and before sorghum reaches 12" in height.

## TABLE 4 - Broadleaf and Grass Weed Control in Sorghum<sup>1,2</sup>

For All Soil Applications Prior to Crop Emergence - Maximum broadcast application rates for corn must be as follows:

- On Highly Erodible Soils (as defined by NRCS): If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at-planting, apply a maximum of 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre as a single pre-emergence application. If the soil coverage with plant residue is less than 30% at-planting, a maximum of 3.2 pts. (1.6 lbs. a.i.) of GCS Atrazine 45% SC per acre as a single pre-emergence application; or 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre are if only applied post-emergence.
- On Soils Not Highly Erodible: Apply a maximum of 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre as a single pre-emergence application.

**For All Post-Emergence Application:** If no atrazine was applied prior to sorghum emergence, apply a maximum of 4 pts. (2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 5 pts. (2.5 lbs. a.i.) of **GCS Atrazine 45% SC** per acre per calendar year.

<sup>1</sup>Do not apply pre-plant surface or pre-plant incorporated in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee, or Texas. Do not apply pre-emergence in New Mexico, Oklahoma, or Texas, except in northeast

Oklahoma and the Texas Gulf Coast and the Blacklands areas.

<sup>2</sup>Where there are State/local requirements regarding atrazine use (including lower maximum rates and/or greater setbacks) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your State lead pesticide control agency for additional information. It is a violation of this label to deviate from State use regulations.

## POST EMERGENCE APPLICATION

If no atrazine was applied prior to Sorghum emergence, apply a maximum of 4 pints (2 lb. a.i.) **GCS Atrazine 45% SC** per acre broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb. atrazine per acre per calendar year.

Note: Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or greater setbacks) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your State Lead Pesticide Control Agency for additional information. It is a violation of this label to deviate from State use regulations.

## **Use Restrictions**

In case of planting failure, sorghum or corn may be replanted. **Do not** make a second broadcast application, or injury may occur. If originally applied in a band and sorghum or corn is replanted in untreated row middles, **GCS Atrazine 45% SC** may be applied in a band to the second planting. The repeat application must not exceed 5 pts. (2.5 lbs. a.i.) of **GCS Atrazine 45% SC** per acre per calendar year.

## **PRE-EMERGENCE**

**Broadleaf Weed Control in Furrow-irrigated Bedded Sorghum (AZ and CA only):** For pre-emergence control of broadleaf weeds, broadcast 1.6 to 2.4 pts. (0.8 to 1.2 lbs. a.i.) per acre after bed preparation, during or after planting, but before sorghum and weeds emerge and before the first furrow irrigation. Several irrigations should follow the application, making sure that all soil is thoroughly wet.

## Use Restrictions - Pre-emergence applications to Furrow-irrigated Bedded Sorghum Grown in AZ and CA

- **Do not** use on sand or loamy sand soils or on sorghum planted in the furrow
- In case of crop failure, **Do not** replant sorghum for 8 months following application. Corn may be planted immediately

## Use Precautions - Pre-emergence applications to Furrow-irrigated Bedded Sorghum Grown in AZ and CA

• Applications made to sorghum growing on alkali soils or where cutes, fills or erosions have exposed calcareous or alkali subsoils may result in crop injury.

## POST-EMERGENCE BROADLEAF WEED CONTROL WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER

Broadcast 2.4 pts. (1.2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre for control of many broadleaf weeds. Apply before pigweed and lambsquarters reach 6" in height and before all other weeds reach 4" in height. In Colorado, western Kansas, New Mexico, Oklahoma, Texas and desert regions of Arizona and California, apply when sorghum is 6" - 12" in height, but before it reaches boot stage. In all other areas, apply after sorghum reaches the 3-leaf stage, but before it exceeds 12" in height. Add 1 gal. of emulsifiable oil per acre for ground application and 0.5 gal. per acre for aerial application, or add 2 pts. per acre of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

For the list of weeds controlled, see the **Post-Emergence with Emulsifiable Oil or Oil Concentrate in Water** section in **TABLE 1**.

Precautions for applications with emulsifiable oil or oil concentrate in water: Refer to the **Precautions - For Applications with Emulsifiable Oil or Oil Concentrate in Water** in the **CORN** section.

# Post-Emergence Broadleaf Weed Control with Surfactant (Colorado, western Kansas, New Mexico, Oklahoma, Texas [, and Desert regions of Arizonia and California] only)

Broadcast 2 - 4 pts. (1 - 2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre plus 0.75 - 1.5 pts. of surfactant after sorghum reaches 6" in height, but before weeds exceed 1.5" in height. Apply only on sandy loam and fine-textured soil.

## TANK MIXTURES FOR GRAIN SORGHUM

**Metolachlor:** Use as tank mixture with metolachlor for control of those weeds listed on the metolachlor label, as well as on this label. Use this tank mixture only on sorghum seed treated with Concep<sup>®</sup> (cymetrinil). Refer to the metolachlor product label for all directions, precautions, and limitations. 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.

## Use Precautions – Tank mixtures with metolachor:

- Applications of GCS Atrazine 45% SC plus metolachlor on highly alkaline soils or on eroded areas where calcareous subsoils are exposed my cause Sorghum injury
- If sorghum seed is not properly treated with cyometrinil, GCS Atrazine 45% SC plus metolachlor will severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following use of GCS Atrazine 45% SC plus metolachlor. The crop will normally outgrow this effect.

## Use Restrictions - Tank mixture with metolachlor

• Do not use GCS Atrazine 45% SC plus metolachlor on sorghum grown under dry mulch tollage, or injury may occur.

Rotational Crops: Refer to the crop rotation instructions on the metolachlor label for metolachlor + atrazine tank mixtures.

#### TABLE 5 - GCS Atrazine 45% SC plus Metolachlor for Grain Sorghum\*

Soil Texture	Broadcast Rates Per Acre	
Son rexture	Less than 1.5% Organic Matter**	1.5% Organic Matter or Greater
Course: Sand, Loamy sand, Sandy loam	DO NOT USE	DO NOT USE
Medium: Loam silt, Silt loam	DO NOT USE	2.35 pts. + metolachlor
Fine: Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay	2.35 pts. + metolachlor	2.9 – 3.25 pts. + metolachlor

\*Do not use in New Mexico, Oklahoma, or Texas except in northeast Oklahoma and Texas gulf coast areas. Do not apply pre-plant incorporated in Arizona or the Imerial Valley of California.

\*\*On highly erodible soils, as defined by the Natural Resource Conservation Service conservation tillage is utilized (>30% plant residue), the maximum rate is 4 pts. per acre. If plant residue is <30%, the maximum rate is 3.2 pts. per acre. On soils not highly erodible, the maximum rate is 4 pts. per acre.

#### WINTER WEED CONTROL IN TEXAS

For post-emergence control of Winter weeds only, including henbit, seedling dock and annual thistle on Fall bedded land in the Gulf Coast and Blacklands of Texas. Apply 1.6 - 2 pts. (0.8 - 1 lb. a.i.) of **GCS Atrazine 45% SC** per acre post-emergence to the weeds in November or December to land that will be planted to corn, grain sorghum, or forage sorghum the following Spring. For best results, add a suitable surfactant, including X-77<sup>®</sup>, at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1% of the spray volume, or an oil concentrate at the rate of 2 pts. per acre.

Normal weed control programs may be used in corn, grain sorghum, or forage sorghum crop.

## **Restriction - Winter Weed Control in Texas:**

• **Do not** plant any crops, except corn, grain sorghum, or forage sorghum, the Spring following this treatment or illegal residues may result.

## GCS ATRAZINE 45% SC ALONE - CHEMICAL FALLOW

**Do not** apply more than 4.5 pts. (2.25 lbs. a.i.) per acre of atrazine for any application and do not apply more than 1 application per cycle.

#### Wheat-Sorghum-Fallow

To control annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage, broadcast 4.5 pts. (2.25 lbs. a.i.) of **GCS Atrazine 45% SC** per acre to wheat stubble immediately following wheat harvest. If weeds are present at application, remove them with a sweep plow or other suitable implement after application, or use an approved contact herbicide before or after the application of **GCS Atrazine 45% SC**. Plant sorghum into wheat stubble the following Spring with minimum soil disturbance. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at-planting, remove them with a sweep plow or other suitable implement at application, remove them with a sweep plow furrow. If weeds are present at-planting, remove them with a sweep plow or other suitable implement before planting.

For the list of weeds controlled, see the **Pre-Plant Surface-Applied**, **Pre-Plant Incorporated**, or **Pre-Emergence** section within **TABLE 1**.

## Restrictions - GCS Atrazine 45% SC Alone - Chemical Fallow:

- Wheat-Sorghum-fallow cropping sequence must be followed.
- Do not apply following sorghum harvest.
- To avoid illegal residues, **Do not** graze or feed forage from treated area to livestock.
- To avoid illegal residues, **Do not** plant any crop other than those on this label within 18 months following treatment.
- For soils in North Dakota and South Dakota with a pH greater than 7.5: Do not apply more than 3 pts. (1.5 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.
- For soils in North Dakota and South Dakota with a pH of less than 7.5: Do not apply more than 2 4 pts. (1 2 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year. Use the higher rate on fine-textured soils and where heavy weed infestations are expected. Use the lower rate on coarse-textured soils and where light weed infestations are expected. In the event grasses are present in the following Spring, use a grass herbicide registered for use on corn.
- For All Other Locations: Do not apply more than 4.5 pts. (2.25 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.

## Precaution - GCS Atrazine 45% SC Alone - Chemical Fallow:

• Use only on silt loam or fine-textured soil, or crop injury may result.

## Wheat-Corn-Fallow (Colorado, Kansas, Nebraska, North Dakota, South Dakota, and Wyoming)

**GCS** Atrazine 45% SC controls cheatgrass (downy brome, chess), kochia, mustards, pigweed, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat during period after wheat harvest. Weed control may extend into following corn crop grown under minimum tillage.

#### **Restrictions:**

- For soils in North Dakota and South Dakota with a pH greater than 7.5: Do not apply more than 3 pts. (1.5 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.
- For soils in North Dakota and South Dakota with a pH of less than 7.5: Do not apply more than 2 4 pts. (1 2 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year. Use the higher rate on fine-textured soils and where heavy weed infestations are expected. Use the lower rate on coarse-textured soils and where light weed infestations are expected. In the event grasses are present in the following Spring, use a grass herbicide registered for use on corn.
- For All Other Locations: Do not apply more than 4.5 pts. (2.25 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.

Follow directions for use, notes, and precautions in the **Wheat-Sorghum-Fallow** section above, substituting corn for references to sorghum.

#### Wheat-Fallow-Wheat (Colorado, Kansas, Nebraska, North Dakota, South Dakota, and Wyoming)

For pre-emergence control of cheatgrass (downy brome, chess), common lambsquarters, field pennycress, kochia, mustard, Russian thistle, wild lettuce, and suppression of volunteer wheat during fallow period of a wheat-fallow-wheat rotation, broadcast 1 - 2 pts. (0.5 - 1 lb. a.i.) of **GCS Atrazine 45% SC** per acre on all soils except those listed under Precautions. For control of pigweed and wild sunflower, use the higher rate. Apply to stubble ground. Treat only once during same fallow period.

## **Restrictions:**

- For soils in North Dakota and South Dakota with a pH greater than 7.5: Do not apply more than 3 pts. (1.5 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.
- For soils in North Dakota and South Dakota with a pH of less than 7.5: Do not apply more than 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.
- For All Other Locations: Do not apply more than 4.5 pts. (2.25 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.

## TANK MIXTURES FOR CHEMICAL FALLOW

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.

## Wheat-Sorghum-Fallow or Wheat-Corn-Fallow (Kansas and Nebraska)

**Atrazine plus Paraquat:** If weeds are present at application, a tank mix with a product containing paraquat may be used. Broadcast 4.5 pts. (2.25 lbs. a.i.) of **GCS Atrazine 45% SC** plus 0.5 - 0.8 lb. of paraquat cation a.i. in 20 - 60 gals. of water per acre by ground equipment. Add 0.5 - 1 pt. of a nonionic surfactant, including X-77<sup>®</sup>, per 100 gals. of spray mixture. Add **GCS Atrazine 45% SC** to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the higher rate of paraquat specified on the label if weeds are 4" - 6" tall. This mixture will not control weeds taller than 6". Apply to stubble ground. Treat only once during same fallow period. Refer to paraquat product label for further directions, precautions, and limitations.

## Wheat-Fallow-Wheat (Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming)

Atrazine plus Paraquat: If weeds are present at application, a tank mix with a product containing paraquat may be used. Broadcast 1 - 2 pts. (0.5 - 1 lb. a.i.) of GCS Atrazine 45% SC plus 0.5 - 0.8 lb. of paraquat cation a.i. in 20 - 60 gals. of water per acre by ground equipment. Add 0.5 - 1 pt. of a nonionic surfactant, including X-77, per 100 gals. of spray mixture. Add GCS Atrazine 45% SC to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the high rate of paraquat if weeds are 4" - 6" tall.

This mixture will not control weeds taller than 6". Apply to stubble ground. Treat only once during same fallow period. Refer to paraquat label for further directions, precautions, and limitations.

If weeds are present at application and **GCS Atrazine 45% SC** is used alone, use either an approved contact herbicide before or after treatment, or tillage after treatment.

Use tillage to control weeds which escape during fallow period. Till before planting. For **GCS Atrazine 45% SC** applied alone or in tank mixture with paraquat, plant at least 2" deep and 12 months or more after application.

## **Restrictions:**

- For soils in North Dakota and South Dakota with a pH greater than 7.5: Do not apply more than 3 pts. (1.5 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.
- For soils in North Dakota and South Dakota with a pH of less than 7.5: Do not apply more than 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.

For All Other Locations: Do not apply more than 4.5 pts. (2.25 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application. Do not apply more than 1 application per year.

## **Aerial Application**

In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low-drift nozzles at a maximum pressure of 40 PSI, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply **GCS Atrazine 45% SC** alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

## Restrictions - Tank Mixtures for Chemical Fallow (to avoid crop injury):

- Do not graze treated areas within 6 months after application or illegal residues may result.
- **Do not** use on sandy soil.
- **Do not** treat eroded hillsides, caliche and rocky outcroppings, or exposed caliche and rocky outcroppings, or exposed calcareous subsoil.
- **Do not** treat soils of the Rosebud and Canyon Series in Western NE and adjoining counties in Colorado and Wyoming.
- **Do not** treat soils with calcareous surface layers or soils with a pH greater than 7.5.

## Precaution

• Avoid spray overlap.

## SUGARCANE

## **ALL STATES**

For control of many broadleaf and grass weeds, including amaranths, crab grass, fireweed, Flora's paintbrush, foxtails, junglerice and wiregrass, broadcast 4 - 8 pts. (2 - 4 lbs. a.i.) of **GCS Atrazine 45% SC** per acre at time of planting or ratooning, but before sugarcane emerges. Broadcast aerially in a minimum of 5 gals. of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gals. per acre, unless indicated otherwise. One additional application may be made over the sugarcane as it emerges, and 2 additional applications may be made interline after emergence as directed sprays. Repeat treatments, where needed may be applied broadcast, band, or interline as suggested with the final application being prior to close-in. **Do not** exceed the rate of herbicide specified for any 1 crop of sugarcane.

**Note:** Where high rates of atrazine are used alone, apply in a minimum of 2 pts. of water for each 2 pts. (1 lb. a.i.) of **GCS Atrazine 45% SC** applied per acre.

**Aerial Application:** In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 PSI, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply GCS Atrazine 45% SC alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

## **Restrictions - All States and Uses:**

- **Do not** apply after close-in.
- **Do not** apply more than 8 pts. (4 lbs. a.i.) of **GCS Atrazine 45% SC** per acre for any application.
- Do not apply more than 20 pts. (10 lbs. a.i.) of GCS Atrazine 45% SC per acre per crop.
- **Do not** exceed the rate of herbicide specified for any 1 crop of sugarcane.

## **Precaution - All States and Uses:**

• Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

For specific weed problems, the following State specific sections may be used. Other rate and application timings may be used for other weed spectrums and cultural practices, provided they are within the above **ALL STATES** section and are consistent with the **Restrictions** and **Precautions** for all States and Uses.

## FLORIDA

**For Control of Emerged Pellitory Weed:** Apply 0.8 - 1.2 pts. (0.4 - 06 lb. a.i.) of **GCS Atrazine 45% SC** per acre in at least 40 gals. of water as a directed spray by ground equipment prior to close-in. Add 8 pts. of surfactant for each 100 gals. of spray. Thoroughly cover weed foliage.

# For Control of Alexandergrass, Large Crabgrass, Pellitory (Artillery) Weed, And Spiny Amaranth, Use 1 Of The Following Methods At-Planting Or Ratooning:

- Apply 8 pts. (4 lbs. a.i.) of GCS Atrazine 45% SC per acre pre-emergence. Follow with 1 or 2 applications, as needed, post-emergence to sugarcane and weeds, at 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre. Treat before weeds exceed 1.5" in height.
- Apply 1 3 times, as needed, at 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre post-emergence to sugarcane and weeds. Treat before weeds exceed 1.5" in height.

#### LOUISIANA

For control of annual weeds during the Summer fallow period, apply 4 pts. (2 lbs.) of **GCS Atrazine 45% SC** per acre to weed-free beds immediately after bed formation. Follow normal weed control after planting.

## Restrictions - Louisiana (to avoid crop injury):

- Do not apply more than 20 pts. (10 lbs. a.i.) of GCS Atrazine 45% SC per acre to any 1 crop of sugarcane.
- If making 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre application during Summer fallow period, Do not exceed 16 pts. (8 lbs. a.i.) of GCS Atrazine 45% SC during the per acre remainder of the growing season or illegal residues may result.

TEXAS

Use GCS Atrazine 45% SC for control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane.

Apply 8 pts. (4 lbs. a.i.) of **GCS Atrazine 45% SC** per acre pre-emergence. Follow with 1 or 2 applications, as needed, at 6 pts. (3 lbs. a.i.) of **GCS Atrazine 45% SC** per acre post-emergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 4 pts./100 gals. to the spray and apply before weeds exceed 1.5" in height.

#### MACADAMIA NUTS

For pre-emergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Flora's paintbrush, Spanish needles, and fireweed, broadcast 4 - 8 pts. (2 - 4 lbs. a.i.) of **GCS Atrazine 45% SC** per acre before harvest and before weeds emerge. Repeat as necessary.

## **Restrictions - MACADAMIA NUTS:**

- Do not apply more than 8 pts. (4 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application.
- Do not apply more than 16 pts. (8 lbs. a.i.) of GCS Atrazine 45% SC per year.
- Do not spray when nuts are on ground during harvest period.
- **Do not** apply by air.
- **Do not** apply via mechanically pressurized handguns.

#### GUAVA

**GCS Atrazine 45% SC** controls many annual broadleaf and grass weeds, including fireweed, purslane, scarlet pimpernel, Spanish needles, and sowthistle. Use only on established plantings which are at least 18 months old.

Apply as directed spray at 4 - 8 pts. (2 - 4 lbs. a.i.) of **GCS Atrazine 45% SC** per acre in 20 - 50 gals. of spray mix pre-emergence or early post-emergence to weeds. When applying post-emergence, the use of a surfactant and great spray volume (80 - 100 gals. of spray mix per acre) may enhance weed control.

#### **Restrictions - Guava:**

- Do not apply more than 8 pts. (4 lbs. a.i.) of GCS Atrazine 45% SC per acre for any application.
- Do not allow spray to contact foliage or fruit.
- **Do not** apply more frequently than at 4-month intervals.
- Do not apply more than 16 pts. (8 lbs. a.i.) of GCS Atrazine 45% SC per year.
- **Do not** apply via mechanically pressurized handguns.

TURFGRASSES FOR SOD[\*]

[\*Not for Use in California]

## St. Augustinegrass, Centipedegrass, and Zoysiagrass

Broadcast 4 - 8 pts. (2 - 4 lbs. a.i.) of GCS Atrazine 45% SC per acre according to soil texture to control those weeds listed in TABLE 1 under Pre-Plant Surface-Applied, Pre-Plant Incorporated, or Pre-Emergence.

Soil Texture	GCS Atrazine 45% SC Broadcast Rate per Acre	Application Timing	
Muck or Peat	8 pts. (4 lbs. a.i.)	• Old Beds: Within 2 days after lifting sod.	
WILLK OF Peal	8 pts. (4 lbs. a.i.)	o pts. (4 lbs. a.i.)	• New Beds: 3-4 days after sprigging or plugging.
Sandy Soil	4 pts. (2 lbs. a.i.)	• Old Beds: Within 2 days after lifting sod.	
Saliuy Suli	4 pts. (2 lbs. a.i.)	• New Beds: 7-10 days after sprigging or plugging.	

If weeds regrow, apply an additional 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre on muck or peat, or 2 pts. (1 lb. a.i.) of GCS Atrazine 45% SC per acre on sandy soil.

## **Restrictions - Turfgrasses for Sod:**

- Do not apply within 30 days prior to cutting or lifting.
- For muck or peat soils, **Do not** apply more than 8 pts. (4 lbs. a.i.) of **GCS Atrazine 45% SC** per acre for any application. **Do not** apply more than 12 pts. (6 lbs. a.i.) of **GCS Atrazine 45% SC** per year.

- For sandy soils, **Do not** apply more than 4 pts. (2 lbs. a.i.) of **GCS Atrazine 45% SC** per acre for any application. **Do not** apply more than 6 pts. (3 lbs. a.i.) of **GCS Atrazine 45% SC** per year.
- **Do not** apply in combination with surfactants or other spray additives.

## Precautions - Turfgrasses for Sod (to avoid crop injury):

- Use only on turfgrass reasonably free of infestation of insects, nematodes, and diseases.
- On newly sprigged turfgrass, temporary slowing of growth may follow application.

## TURFGRASSES FOR FAIRWAYS AND COMMERCIAL TURFGRASS \*

\*For use on TURFGRASS AT RESIDENTIAL SITES, see section below.

#### Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysiagrass

Apply **GCS Atrazine 45% SC** after October 1<sup>st</sup> before emergence of winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover, and spurweed. **GCS Atrazine 45% SC** will control annual bluegrass even if it is emerged at time of treatment. For control of Summer annual weeds listed in the **Pre-Emergence** portion of the **GCS ATRAZINE 45% SC APPLIED ALONE - CORN OR GRAIN SORGHUM** section of the label, also apply **GCS Atrazine 45% SC** in late Winter before the weeds emerge. Apply in a minimum of 15 gals. of water per acre or 1 gal. per 1,000 sq. ft.

Where annual bluegrass is the major weed, use 2 pts. (1 lb. a.i.) per acre (22 mL or 0.75 fl. oz. per 1,000 sq. ft.) of **GCS Atrazine 45% SC**. Use 2 pts. (1 lb. a.i.) per acre (22 mL or 0.75 fl. oz. per 1,000 sq. ft.) of **GCS Atrazine 45% SC** for control of the other weeds named above. **Do not** exceed 2 pts. (1 lb. a.i.) of **GCS Atrazine 45% SC** per acre per treatment on newly sprigged turfgrass or on hybrid bermudagrass including Tiflawn, Tifway, and Ormond.

For continued Summer annual weed control, apply another 2 pts. (1 lb. a.i.) of **GCS Atrazine 45% SC** per acre at least 30 days after the previous application, but not after April 15<sup>th</sup>. However, **Do not** make more than 2 applications per year.

## Restrictions - Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysiagrass

- Do not exceed 2 pts. (1 lb. a.i.) of GCS Atrazine 45% SC per acre per treatment on newly sprigged turfgrass or on hybrid bermudagrass including Tiflawn, Tifway, and Ormond.
- **Do not** make more than 2 applications per year.

**St Augustine Grass and Centipedegrass: GCS Atrazine 45% SC** may be applied to established St. Augustine grass and Centipedegrass during the dormant and the growing season. Best results are usually obtained in the early spring or dormant periods when weeds are small or have not emerged.

**Dormant Bermudagrass: GCS Atrazine 45% SC** may be applied to Bermudagrass during the dormant season only. Applications to Bermudagrass during the growing season will cause injury.

## **Restrictions - Turfgrasses for Fairways and Commercial Turfgrass:**

- **Do not** use on golf greens.
- **Do not** use north of North Carolina (except may be used in Virginia Coastal Plains) or west of the high rainfall areas of eastern OK and eastern Texas.
- **Do not** use on muck or alkaline soils.
- Do not apply over the rooting area of trees or ornamentals not listed on this label.
- Do not overseed with desirable turfgrass within 4 months before or 6 months after treatment.
- Do not apply GCS Atrazine 45% SC to newly seeded bermudagrass until it has over-wintered and has a well-developed rhizome system. Do not exceed 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre within 12 months of seeding bermudagrass.
- **Do not** graze or feed turf clippings to animals..

## Precautions - Turfgrasses for Fairways and Commercial Turfgrass:

• On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases.

#### TURFGRASS AT RESIDENTIAL SITES

## (including Homes, Daycare Facilities, Schools, Playgrounds, Parks, Recreational Areas, and Sports Fields)

## Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysiagrass

Apply **GCS Atrazine 45% SC** after October 1<sup>st</sup> before emergence of Winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover, and spurweed. **GCS Atrazine 45% SC** will control annual bluegrass even if it is emerged at time of treatment. For control of Summer annual weeds listed above, also apply **GCS Atrazine 45% SC** in late Winter before the weeds emerge. For all weeds, use 0.75 fl. oz. per 1,000 sq. ft. (2 pts. per acre) of **GCS Atrazine 45% SC**. Apply in a minimum of 1 gal. of water per 1,000 sq. ft. (15 gals. of water per acre).

For continued Summer annual weed control, apply another 0.75 fl. oz. of **GCS Atrazine 45% SC** per 1,000 sq. ft. (2 pts. per acre) at least 30 days after the previous application, but not after April 15<sup>th</sup>. However, **Do not** make more than 2 applications of **GCS Atrazine** 

## 45% SC per year.

## **Restrictions - Turfgrass at Residential Sites:**

- **Do not** apply more than 2 pts. (1 lb. a.i.) of **GCS Atrazine 45% SC** per acre for any application.
- Do not apply more than 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre per year.
- **Do not** make more than 2 applications of GCS Atrazine 45% SC per year.
- **Do not** use on golf greens.
- **Do not** use north of North Carolina (except may be used in Virginia Coastal Plains) or west of the high rainfall areas of eastern OK and eastern Texas.
- **Do not** use on muck or alkaline soils.
- Do not apply over the rooting area of trees or ornamentals not listed on this label.
- Do not overseed with desirable turfgrass within 4 months before or 6 months after treatment.
- Do not apply GCS Atrazine 45% SC to newly seeded bermudagrass until it has over-wintered and has a well-developed rhizome system. Do not exceed 4 pts. (2 lbs. a.i.) of GCS Atrazine 45% SC per acre within 12 months of seeding bermudagrass.
- **Do not** graze or feed turf clippings to animals or illegal residues may result.

## **Precautions - Turfgrass at Residential Sites:**

• On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases.

#### **RIGHTS-OF-WAY**

## Control of Annual Weeds in Highway Rights-of-Way (OK Only)

Apply up to 2 pts. (1 lb. a.i.) of this product in 20-80 gallons of water per acre for control of annual bluegrass, black nightshade, cheat, cocklebur\*, common hop clover, annual broomweed, downy brome, Japanese brome, foxtails, horseweed (marestail)\*, kochia, lambsquarters, little barley, mustard, pigweed (carelessweed), poorjoe, ragweed, Russian thistle\*, smartweed, smutgrass, sunflower, wild lettuce, and wild oats. For control of summer annual weeds, apply this product in spring before weeds emerge. \*Weeds partially controlled.

## **Restrictions – Highway Rights-of-Way:**

- **Do not** cut or feed grass hay from highway rights-of-way.
- Do not allow livestock to graze in treated areas.
- **Do not** apply more than 2 pts. (1 lb. a.i.) per acre for any application
- **Do not** make more than one application per year.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a secure, cool, dry location. Groundwater contamination may be reduced by diking and flooring of permanent bulk storage sites with an impermeable material.

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

## CONTAINER HANDLING:

**[[Nonrefillable Container (five gallons or less):]** Nonrefillable container. **Do not** reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.]

[[Nonrefillable Container (greater than five gallons):] Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Turn the container over onto its other 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. Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank, or collect rinsate for later use or disposal. Repeat the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.]

**[[Refillable Container (greater than five gallons:]** Refillable container. Refill this container with pesticide only. **Do not** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container 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. When this container is empty, replace the

cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with State and local regulations.]

## 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. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Generic Crop Science, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Generic Crop Science, LLC and Seller harmless for any claims relating to such factors.

Generic Crop Science, LLC 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 consistent with applicable law, this warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Generic Crop Science, LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Generic Crop Science, LLC, MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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