

GROUP 9 | 27 HERBICIDES

PULL HERE TO OPEN ►



# Callisto® GT

syngenta®

A Postemergence Herbicide for Weed Control in Glyphosate Tolerant (GT) Corn

*Active Ingredients:*

Glyphosate\*, N-(phosphonomethyl) glycine: . . . . . 34.0%  
Mesotrione\*\*: . . . . . 3.4%

*Other Ingredients:* . . . . . 62.6%

*Total:* . . . . . 100.00%

Active ingredients per gallon: glyphosate acid 3.8 pounds and mesotrione 0.38 pounds.

\*CAS No. 1071-83-6

\*\*CAS No. 104206-82-8

**KEEP OUT OF REACH OF CHILDREN.**

## CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1470

EPA Est. No. 100-NE-001

SCP 1470A-L1 0613  
4027989

## 2.5 gallons

Net Contents

TM

<b>FIRST AID</b>	
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p><b>HOTLINE NUMBER</b>            For 24-Hour Medical Emergency Assistance (Human or Animal),            or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident)            Call  <b>1-800-888-8372</b></p>	

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION**

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes or clothing. This product may cause skin sensitization reactions in some people. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

**Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA Chemical-resistant Category Selection Chart.

**Mixers, Loaders, Applicators, Flaggers and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning and/or maintaining PPE. If there are no such instructions for washables, clean with detergent and hot water. Keep and wash PPE separately from other laundry.

*continued...*

## PRECAUTIONARY STATEMENTS *(continued)*

### User Safety Recommendations

#### Users should:

- Wash hands 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.

### Engineering Control Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### Environmental Hazards

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

### Physical and Chemical Hazards

Do not use or store near heat or open flame.

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), galvanized steel containers, or sprayer tanks. Do not mix or allow in contact with oxidizing and reducing agents. Hazardous chemical reaction may occur. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas which may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

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

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

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

## DIRECTIONS FOR USE

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

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

### AGRICULTURAL USE REQUIREMENTS

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

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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 over short-sleeved shirt and short pants
- Chemical-resistant gloves
- Shoes plus socks

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

## PRODUCT INFORMATION

Callisto GT is a systemic, postemergence herbicide for control of emerged grass and broadleaf weeds plus residual control of broadleaf weeds in glyphosate tolerant (GT) corn.

Following a postemergence application, susceptible weeds take up the herbicide through the treated foliage and cease growth soon after application. Complete death of the weeds may take up to 2 weeks.

Callisto GT will provide 2-4 weeks residual control of newly emerging broadleaf weeds listed in Table 1. Callisto GT will not provide residual control of grass weeds.

## **USE PRECAUTIONS**

1. Callisto GT can be applied postemergence to glyphosate tolerant (e.g. Roundup Ready®, Agrisure® GT) corn only. An application of Callisto GT to a corn hybrid that is not glyphosate tolerant will result in crop death.
2. Severe corn injury resulting in yield loss may occur if Callisto GT is applied postemergence to corn that was treated with Counter®, Lorsban® or other organophosphate-containing soil insecticides.
3. Severe corn injury resulting in yield loss may occur if Callisto GT is applied in a foliar postemergence tank mix with any organophosphate or carbamate insecticide.
4. Severe corn injury resulting in yield loss may occur if any foliar organophosphate or carbamate insecticide is applied postemergence within 7 days before or 7 days after Callisto GT application.
5. Severe corn injury resulting in yield loss may occur if Callisto GT is applied postemergence in a tank mix with emulsifiable concentrate grass herbicides.
6. Callisto GT may be tank mixed or sequentially applied with pyrethroid insecticides such as Warrior®.
7. Cultivation of corn within 7 days before or after application may result in reduced weed control from the Callisto GT application.
8. Temporary crop response (transient bleaching) from postemergence applications to glyphosate tolerant corn may occur under extreme weather conditions or when the crop is suffering from stress. Corn quickly outgrows these effects and develops normally.
9. When tank mixing, follow the most restrictive label limitations and precautions.

## **USE RESTRICTIONS**

1. Do not apply more than one time per year.
2. Do not apply this product through any type of irrigation system.
3. Do not apply this product with suspension fertilizers or urea ammonium nitrate (UAN) as the carrier.
4. Do not apply more than 2 pints of Callisto GT per acre per growing season.
5. Do not apply this product by aerial application.
6. To avoid possible illegal residues, do not graze or feed forage from treated areas for 45 days following application.
7. Do not apply to corn taller than 30 inches in height or showing more than 8 leaves, whichever is more restrictive.
8. Do not harvest forage, grain, or stover within 45 days after application.
9. No more than 0.24 lb. of mesotrione active ingredient may be applied per acre of corn per year as a result of application of all mesotrione-containing products (for example, Callisto).
10. No more than 6.0 lbs. of glyphosate acid may be applied per acre per year as a result of all glyphosate-containing products (for example, Touchdown Total® Herbicide).

## **WEED RESISTANCE MANAGEMENT**

Naturally occurring biotypes of certain grass and broadleaf weed species with resistance to triazines, glyphosate, PPO, HPPD and/or ALS inhibiting herbicides are known to exist. The repeated use of herbicides with the same mode of action is known to lead to the selection of herbicide resistant weeds. Therefore, a good weed resistance management strategy includes a program that contains multiple herbicide modes of action. Sound agronomic practices are also essential to reduce the likelihood that resistant weed populations will develop and integrated strategies are known to manage such problem weeds.

Callisto GT contains two active ingredients (glyphosate - a group 9 herbicide and mesotrione - a group 27 herbicide) and two modes of action. Because of the two modes of action, this product is an effective component of a weed resistance management strategy. This product must be applied at full label rates to reduce selection for, or population shifts toward, marginally tolerant weed species and/or species biotypes.

Because glyphosate is one of the active ingredients in Callisto GT, glyphosate resistance management is critical. This product will control broadleaf weeds that are showing increased tolerance or resistance to glyphosate. When applying this product to broadleaf weeds that are suspected or known resistant to glyphosate, add atrazine and/or dicamba (e.g. Distinct®, Status®) to provide an additional mode of action. Follow all label directions and restrictions for the atrazine and dicamba products tank mixed. This product will also not control emerged weeds that are resistant to both glyphosate and HPPD inhibiting herbicides. For control of these resistant weeds, a program that includes residual herbicides is essential.

If applying Callisto GT postemergence after a mesotrione-containing preemergence herbicide, always add atrazine as a tank-mix partner. If an additional postemergence herbicide must be applied, it is recommended that a different mode of action be used, i.e., other than an HPPD inhibitor (group 27 herbicide).

### **INTEGRATED PEST (WEED) MANAGEMENT**

Callisto GT may be integrated into an overall weed management strategy. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding, and rotations) should be followed wherever possible. Consult local agricultural and weed authorities for additional Integrated Pest Management strategies established for your area.

## **APPLICATION INFORMATION**

### **GROUND APPLICATION**

Spray nozzles should be uniformly spaced, the same size and type, and should provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to provide good coverage and avoid drift. Good weed coverage is essential for optimum weed control. Boom height for broadcast over-the-top applications should be based on the height of the crop.

Flat fan or Turbo Tee Jet nozzles are recommended for optimum coverage. Do not use flood jet nozzles or controlled droplet application equipment for applications of this product. Applications of this product with air induction nozzles may result in nonuniform spray coverage and less than optimum weed control.

Ensure that all inline strainer and nozzle screens in the sprayer are 50-mesh or coarser.

Apply this product in a spray volume of 10-30 gals./A. Use a pump that can maintain the nozzle manufacturer's recommendations and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles. When weed foliage is dense, use a minimum of 15 gals./A.

Always ensure that agitation is maintained until spraying is completed, even if spraying is stopped for brief periods. If the agitation is stopped for more than 5 minutes, recirculate the spray solution by running on full agitation prior to spraying.

### **SPRAY DRIFT**

The interaction of equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making a decision.

The most effective way to reduce spray drift potential is to apply large 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.

### **INFORMATION ON DROPLET SIZE**

The most effective way to reduce spray 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

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturers recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

### APPLICATION HEIGHT

Applications should be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

### WIND

Drift potential is lowest between wind speeds 10 mph or less. However, many factors including droplet size, pressure, and equipment type determine drift potential at any given wind speed. **Note:** Local terrain can influence wind patterns.

Leave a sufficient buffer downwind of the application to avoid drift to sensitive crops. This buffer may be untreated corn rows or field border species maintained for this purpose. The width of the buffer needed for a specific application will depend on the wind speed, distance to sensitive crops, and application equipment parameters.

### TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### SENSITIVE AREAS

This product should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not apply when weather conditions may cause drift to nontarget areas.

## MIXING PROCEDURES

### CARRIER

Use only clean water as the carrier when applying Callisto GT.

### ADDING CALLISTO GT TO THE SPRAY TANK

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either Callisto GT alone or with tank-mix partners. If water is used as the carrier, use clean water.

### **CALLISTO GT APPLIED ALONE**

When used alone, add the recommended amount of Callisto GT to the spray tank when the tank is half full of clean water, and then add the rest of the clean water. Provide sufficient agitation during mixing and application to maintain a uniform mixture.

### **CALLISTO GT APPLIED IN TANK MIXTURE**

Refer to the crop use directions section of this label for recommended tank mixes.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Do not tank mix Callisto GT with any other insecticide, fungicide, fertilizer solution, or adjuvant not recommended on the label or supplemental labeling without testing compatibility as poor mixing may result. It is recommended that the compatibility of any tank-mix combination be tested on a small scale such as a jar test before actual tank mixing.

### **TANK MIX COMPATABILITY TEST**

A compatibility test is recommended before tank mixing to ensure compatibility of Callisto GT with other products. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients.

#### **Test Procedure**

1. Add 1.0 pt. of clean water to each of two 1 qt. jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add  $\frac{1}{4}$  tsp. or 1.2 milliliters of a compatibility agent approved for this use such as Compex or Unite ( $\frac{1}{4}$  tsp. is equivalent to 2.0 pts./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of product(s) in their relative proportions based on recommended label rates. If more than one product is used, add them separately with dry products first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15-30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry product(s) in water before addition, or (b) add  $\frac{1}{2}$  the compatibility agent to the water and the other  $\frac{1}{2}$  to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, do not use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the Storage and Disposal sections of the most restrictive product label.

### **TANK MIX ORDER OF ADDITION**

If the tank-mix partner is compatible, fill the tank half full of the water. Start and continue agitation throughout mixing and spraying. All return lines to the spray tank must discharge below the liquid level. Prepare the components and add in the following order:

Follow the mixing instructions for adding Callisto GT to the spray tank:

1. Only use sprayers in good running condition with good agitation. Ensure the sprayer is cleaned according to instructions on label of the product used prior to Callisto GT. Use only clean water for the spray solution. Ensure that all inline strainer and nozzle screens in the sprayer are 50-mesh or coarser. Screens finer than 50-mesh should not be used.
2. Begin to fill sprayer or premix tank with clean water and engage agitator. Agitation must be continued throughout the entire mixing and spraying procedure.



3. When the sprayer or premix tank is half full of water, add Ammonium Sulfate (AMS) and agitate until completely dispersed.
4. Add adjuvant (NIS)
5. If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Agitate during the procedure.
6. If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when a dry flowable is diluted with water before adding to the tank.
7. Add Callisto GT.
8. Add any other tank-mix products next with emulsifiable concentrates added last.
9. Complete filling the sprayer tank and continue agitation. Apply as soon as possible after spray mixture is prepared. Do not leave mixture in spray tank overnight without agitation or unattended.

#### **CLEANING EQUIPMENT AFTER APPLICATION**

Special attention must be given to cleaning equipment before spraying a crop other than glyphosate tolerant corn. Mix only as much spray solution as needed.

Flush tank, hoses, boom, and nozzles with clean water.

1. Prepare a cleaning solution of 1 gal. of household ammonia per 25 gals. of water. Many commercial spray tank cleaners may be used.
2. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
3. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
4. Dispose of rinsate from steps 1-3 in an appropriate manner.
5. Repeat steps 2-5.
6. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
7. Rinse the complete spraying system with clean water.

#### **WEEDS CONTROLLED**

For the optimum weed control and protection of the corn crop's yield potential, apply Callisto GT before weeds exceed 4 inches in height. Susceptible broadleaf weeds which emerge soon after an application of Callisto GT will be controlled for an additional 2-4 weeks.

Callisto GT will not control grasses that are resistant to glyphosate or broadleaf weeds that are resistant to both glyphosate and HPPD inhibiting herbicides.

A tank mixture of Callisto GT plus AAtrex® may be required for complete control of heavy populations or resistant weeds.

Callisto GT will not provide control of emerged grasses that are resistant to glyphosate.

**Table 1. Weeds Controlled with Postemergence Applications of Callisto GT**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Amaranth, palmer	<i>Amaranthus palmeri</i>	C <sup>2</sup>
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Amaranth, spiny	<i>Amaranthus spinosus</i>	C
Anoda, spurred	<i>Anoda cristata</i>	C
Atriplex	<i>Chenopodium orach</i>	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Burcucumber	<i>Sicyos angulatus</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Chickweed, common	<i>Stellaria media</i>	C
Chickweed, mouseear	<i>Cerastium vulgatum</i>	C
Cocklebur, common	<i>Xanthium strumarium</i>	C
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>	C
Crotalaria, showy	<i>Crotalaria spectabilis</i>	C
Croton, tropic	<i>Croton glandulosus</i>	C
Dandelion, common	<i>Taraxacum officinale</i>	C
Dock, curly	<i>Rumex crispus</i>	C
Eclipta	<i>Eclipta prostrata</i>	C
Galinsoga	<i>Galinsoga parviflora</i>	C
Groundcherry, smooth	<i>Physalis longifolia</i>	C
Groundsel, common	<i>Senecio vulgaris</i>	C
Hemp	<i>Cannabis sativa</i>	C
Henbit	<i>Lamium amplexicaule</i>	C
Horseweed (marestail)	<i>Conyza canadensis</i>	C <sup>2</sup>
Jimsonweed	<i>Datura stramonium</i>	C
Johnsongrass	<i>Sorghum halepense</i>	C
Knotweed, prostrate	<i>Polygonum aviculare</i>	C
Kochia	<i>Kochia scoparia</i>	C <sup>2</sup>
Lambsquarters, common	<i>Chenopodium album</i>	C
Mallow, Venice	<i>Hibiscus trionum</i>	C

continued...

**Table 1. Weeds Controlled with Postemergence Applications of Callisto GT (continued)**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Broadleaf Weeds</b>		
Marshelder	<i>Iva xanthifolia</i>	C
Morningglory, entireleaf	<i>Ipomoea hederacea</i>	C
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	C
Morningglory, pitted	<i>Ipomoea lacunose</i>	C
Morningglory, tall	<i>Ipomoea purpurea</i>	C
Mustard, wild	<i>Brassica kaber</i>	C
Nightshade, black	<i>Solanum nigrum</i>	C
Nightshade, Eastern black	<i>Solanum ptycanthum</i>	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C
Pennycress, field	<i>Thlaspi arvense</i>	C
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C
Pigweed, tumble	<i>Amaranthus albus</i>	C
Pokeweed, common	<i>Phytolacca americana</i>	C
Potato, volunteer	<i>Solanum</i> spp.	C
Puncturevine	<i>Tribulus terrestris</i>	C
Purslane, common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C <sup>2</sup>
Ragweed, giant	<i>Ambrosia trifida</i>	C <sup>2</sup>
Senna, coffee	<i>Cassia occidentalis</i>	C
Sesbania, hemp	<i>Sesbania exaltata</i>	C
Shepherdspurse	<i>Capsella bursa-pastoris</i>	C
Sicklepod	<i>Cassia obtusifolia</i>	C
Sida, prickly (teaweed)	<i>Sida spinosa</i>	C
Smartweed, ladythumb	<i>Polygonum persicaria</i>	C
Smartweed, pale	<i>Polygonum lapathifolium</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Spurge, prostrate	<i>Euphorbia humistrata</i>	C
Spurge, spotted	<i>Euphorbia maculata</i>	C
Sunflower, common	<i>Helianthus annuus</i>	C

Common Name	Scientific Name	Weed Rating <sup>1</sup>
Thistle, Canada	<i>Cirsium arvense</i>	C
Thistle, Russian	<i>Salsola iberica</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, common	<i>Amaranthus rudis</i>	C <sup>2</sup>
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C <sup>2</sup>
<b>Grass Weeds</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Bluegrass, annual	<i>Poa annua</i>	C
Brome, downy	<i>Bromus tectorum</i>	C
Cheat	<i>Bromus secalinus</i>	C
Corn, volunteer (non-GT)	<i>Zea mays</i>	C <sup>3</sup>
Crabgrass, large	<i>Digitaria sanguinalis</i>	C
Crabgrass, smooth	<i>Digitaria ischaemum</i>	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C
Cupgrass, woolly	<i>Eriochloa villosa</i>	C
Foxtail, bristly	<i>Setaria verticillata</i>	C
Foxtail, giant	<i>Setaria faberii</i>	C
Foxtail, green	<i>Setaria viridis</i>	C
Foxtail, yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Millet, wild-proso	<i>Panicum miliaceum</i>	C
Oat, wild	<i>Avena fatua</i>	C
Panicum, fall	<i>Panicum dichotomiflorum</i>	C
Panicum, Texas	<i>Panicum texanum</i>	C
Sandbur, field	<i>Cenchrus incertus</i>	C
Sandbur, southern	<i>Cenchrus echinatus</i>	C
Shattercane	<i>Sorghum bicolor</i>	C
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C
Sorghum, grain (milo)	<i>Sorghum bicolor</i>	C
Starbur, bristly	<i>Acanthosporium hispidum</i>	C
Stinkgrass	<i>Eragrostis cilianensis</i>	C
Witchgrass	<i>Panicum capillare</i>	C

continued...

**Table 1. Weeds Controlled with Postemergence Applications of Callisto GT (continued)**

Common Name	Scientific Name	Weed Rating <sup>1</sup>
<b>Sedges</b>		
Nutsedge, yellow	<i>Cyperus esculentus</i>	C
Nutsedge, purple	<i>Cyperus rotundus</i>	C

<sup>1</sup>C = Control, PC = Partial Control

<sup>2</sup>For glyphosate resistant weeds such as common ragweed, giant ragweed, horseweed (marestail), Palmer amaranth and waterhemp, the addition of atrazine is required for control

<sup>3</sup>Will not control glyphosate tolerant volunteer corn

## CROP USE DIRECTIONS - GLYPHOSATE TOLERANT CORN

Apply Callisto GT postemergence only in glyphosate tolerant corn (e.g. Roundup Ready, Agrisure GT) for control of the weeds listed in Table 1. When glyphosate tolerant corn is grown under minimum or no-till conditions, control all emerged weeds at the time of corn planting with a glyphosate or paraquat based herbicide program.

### USE RATE

Apply Callisto GT at a rate of 2.0 pts./A as a postemergence application. Consult Syngenta technical bulletins or supplemental labeling for additional application rate information. Only one application may be made.

Applying Callisto GT at rates less than 2.0 pts./A may result in incomplete weed control, as well as less residual weed control. Using reduced rates of this product also increases the risk for the development of weed resist biotypes. See the **WEED RESISTANCE MANAGEMENT** section of this label for specific instructions.

### TIMING TO THE CROP

Apply Callisto GT from emergence up to corn that is 30 inches tall. Do not apply to corn taller than 30 inches in height or showing more than 8 leaves, whichever is more restrictive.

While Callisto GT has a wide window of application in corn, the best results for maximizing yield and controlling weeds are obtained when applications are made postemergence to small (<4") weeds. For even more consistent weed control and yield protection, apply a preemergence herbicide such as Lumax® EZ, Lexar® EZ or Zemax® followed by a timely postemergence application of Callisto GT.

### TIMING TO THE WEEDS

Apply Callisto GT postemergence to actively growing weeds listed in Table 1. For the best combination of postemergence weed control and protection of yield potential, apply before weeds exceed 4 inches in height, length or diameter. While Callisto GT may control weeds that are larger than 4 inches, consistency of performance may be reduced.

Visible effects on annual weeds occur within 2-4 days after application; effects on perennial weeds may take 7 days or longer. Extremely cool or cloudy weather following treatment may slow activity.

### SPRAY ADJUVANTS

For effective control of weeds listed in Table 1, Apply Callisto GT with a non-ionic surfactant (NIS) and ammonium sulfate (AMS).

**Non-Ionic Surfactant (NIS):** Apply at 1-2 qts./100 gals. (0.25-0.5% v/v) of spray solution. Use the higher rate of NIS when weeds are growing under stress (e.g. cool temperatures, dry weather, etc.). Products must contain a minimum of 80% surface active NIS

**Ammonium Sulfate (AMS):** Apply spray grade AMS at 8.5-17.0 lbs./100 gals. of spray solution. Liquid AMS or blended product may be used but the final use rate must deliver an AMS equivalence of 8.5-17.0 lbs./100 gals. of water.

**Crop Oil Concentrate (COC):** Crop oil concentrate may be substituted for NIS and applied at a rate of 1 gals./100 gals. (1% v/v) of spray solution. The use of COC will increase the risk for crop injury. If crop injury occurs, it is transient and corn will recover fully within 5-7 days following application.

**Methylated Seed Oil (MSO) Products:** Due to crop injury risk, MSO or MSO based product are not recommended for use with this product

**Blended Adjuvant Products:** Products that contain more than one component (e.g. AMS plus NIS) are acceptable provided that the product delivers the full recommended rate of each adjuvant. Use of blended products that deliver less than the full recommended rate may result in unacceptable weed control

### **SEQUENTIAL WEED CONTROL**

Callisto GT should be applied as the postemergence component of a two-pass weed control program. An example of this sequential approach would be the following: apply Lexar EZ or Lumax EZ or Zemax preemergence and follow with a postemergence application of Callisto GT at 2.0 pts./A. Another example of sequential weed control would be to apply Callisto GT at 2.0 pts./A postemergence following a preemergence application of Expert®, Bicep II Magnum®, Bicep Lite II Magnum® or Dual II Magnum®.

Do not reduce the rate of Callisto GT when applied in a sequential program. Refer to the individual product labels and follow all use directions, precautions and restrictions.

Callisto GT must be applied with a non-ionic surfactant (NIS) and ammonium sulfate (AMS). See the **Spray Adjuvants** section for specific recommendations.

### **Callisto GT POSTEMERGENCE TANK MIXTURE WITH AATREX BRANDS**

Apply Callisto GT at 2.0 pts./A in tank mixture with AAtrex for control of heavy weed populations or resistant or suspected resistant weeds. Add AAtrex® 4L at a rate of 0.54-0.9 pts./A (0.25-2.0 lbs. ai/A). Alternatively, AAtrex® Nine-O® may be mixed with Callisto GT at a rate that delivers 0.25-2.0 lbs. ai/A. Atrazine rates above 0.5 lb. ai/A may result in glyphosate antagonism and reduced grass control.

Callisto GT must be applied with a non-ionic surfactant (NIS) and ammonium sulfate (AMS). See the **Spray Adjuvants** section for specific recommendations.

When tank mixing or sequentially applying atrazine or products containing atrazine with Callisto GT to glyphosate tolerant corn, do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lb. a.i. per acre) must not exceed 2.5 pounds active ingredient per acre per year.

If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lbs. ai/A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. ai/A per calendar year.

Do not apply any atrazine formulation if the corn is greater than 12 inches tall.

### **ADDITIONAL CALLISTO GT POSTEMERGENCE TANK MIXTURES**

The tank mixtures with Callisto GT identified in Table 2 may be applied postemergence to glyphosate tolerant corn (i.e., after corn has emerged). Applying Callisto GT at rates less than 2.0 pts./A may result in incomplete weed control. Using reduced rates of this product also increases the risk for the development of weed resist biotypes. See the **WEED RESISTANCE MANAGEMENT** section of this label for specific instructions.

Always add an appropriate adjuvant to the spray tank (see the **Spray Adjuvants** section of this label). Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

**Table 2. Callisto GT Tank Mixtures for Postemergence Application in Corn**

Tank-Mix Partners <sup>1</sup>	Directions
Basagran®	<ul style="list-style-type: none"> <li>Use this mixture for additional broadleaf weed control. Refer to product label for list of weeds controlled.</li> </ul>
Buctril® Moxy®	<ul style="list-style-type: none"> <li>Use this mixture for additional broadleaf weed control.</li> <li>Add Buctril (2 lbs./gal.) or Moxy (2 lbs./gal.) at a rate up to 6 fl. ozs./A.</li> <li>Add Buctril (4 lbs./gal.) at a rate up to 3 fl. ozs./A.</li> </ul>
Status® Clarity®	<ul style="list-style-type: none"> <li>Use this mixture for additional weed control.</li> <li>Refer to product label for list of weeds controlled.</li> </ul>
Northstar®	<ul style="list-style-type: none"> <li>Use this mixture for additional weed control.</li> <li>Refer to product label for list of weeds controlled.</li> </ul>

<sup>1</sup>Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

## ROTATIONAL CROPS

When Callisto GT is applied as directed on this label, follow the crop rotation intervals in Table 3. If this product is tank mixed with other products, follow the most restrictive product's crop rotation interval.

**Table 3. Time Interval Between Callisto GT Application and Replanting or Planting of Rotational Crop**

Crop	Replant/Rotational Interval
Corn (all types) Sorghum (grain and sweet)	Anytime
Small grain cereals including wheat, barley and rye	4 Months
Alfalfa Canola Cotton Peanuts Potato Soybeans Sunflowers Tobacco	10 Months
All other rotational crops	18 Months

## STORAGE AND DISPOSAL

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

### Pesticide Storage

Keep container tightly closed when not in use. Product can be stored at temperatures as low as -10°F. Do not store near seeds, fertilizers, or food stuffs. Keep away from heat and flame.

### Pesticide Disposal

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Thoroughly rinse the spray equipment after use. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these

wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

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



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

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

Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. If the container is damaged, leaking or obsolete, contact Syngenta Crop Protection, LLC at 1-800-888-8372.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.**

AAtrex®, AAtrex® 4L, AAtrex® Nine-O®, Agrisure® GT, Bicep II Magnum®, Bicep Lite II Magnum®, Callisto®, Dual II Magnum®, Expert®, Lexar® EZ, Lumax® EZ, Northstar®, Touchdown Total®, Warrior®, Zemax®, and the ALLIANCE FRAME  the SYNGENTA Logo and the PURPOSE ICON  are Trademarks of a Syngenta Group Company

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Lorsban® is a trademark of Dow AgroSciences

Moxy® is a trademark of Winfield Solutions LLC

Roundup Ready® is a trademark of Monsanto Company

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

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

**SCP 1470A-L1 0613  
4027989**



GROUP 9 27 HERBICIDES



A Postemergence Herbicide for Weed Control in Glyphosate Tolerant (GT) Corn

Active Ingredients:	
Glyphosate*	
N-(phosphonomethyl) glycine: . . . . .	34.0%
Mesotrione**:	3.4%
Other Ingredients:	62.6%
Total:	100.00%

Active ingredients per gallon: glyphosate acid 3.8 pounds and mesotrione 0.38 pounds.

\*CAS No. 1071-83-6  
\*\*CAS No. 104206-82-8

## KEEP OUT OF REACH OF CHILDREN. CAUTION

See additional directions for use and storage and disposal instructions in attached booklet.

### AGRICULTURAL USE REQUIREMENTS

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

EPA Reg. No. 100-1470  
EPA Est. No. 100-NE-001

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

SCP 1470A-L1 0613  
4027989

# 2.5 gallons

Net Contents

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes or clothing. This product may cause skin sensitization reactions in some people. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

#### FIRST AID

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. **If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **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 by a poison control center or doctor. Do not give anything to an unconscious person. **If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**HOTLINE NUMBER:** For 24-Hour Medical Emergency Assistance (Human or Animal), or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372.

#### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA Chemical-resistant Category Selection Chart.

**Mixers, Loaders, Applicators, Flagger and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning and/or maintaining PPE. If there are no such instructions for washables, clean with detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations

##### Users should:

- Wash hands 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.

**Engineering Control Statements:** When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**Environmental Hazards:** Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

**Physical and Chemical Hazards:** Do not use or store near heat or open flame.

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), galvanized steel containers, or sprayer tanks. Do not mix or allow in contact with oxidizing and reducing agents. Hazardous chemical reaction may occur. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas which may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Keep container tightly closed when not in use. Product can be stored at temperatures as low as -10°F. Do not store near seeds, fertilizers, or food stuffs. Keep away from heat and flame.

**Pesticide Disposal:** Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Thoroughly rinse the spray equipment after use. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**Container Handling [less than 5 gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.**



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