GROUP	27	HERBICIDE

CALLISTO® 480SC Herbicide

COMMERCIAL - AGRICULTURAL

SUSPENSION

A herbicide for use in field, seed, and sweet corn, flax, cranberry, asparagus (established), blueberry, rhubarb, pearl millet, sorghum and turf for control of annual broadleaf weeds.

ACTIVE INGREDIENT:
Mesotrione ..... 480 g/L

Contains 1,2-benzisothiazolin-3-one at 0.0015 % as a preservative OR contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00006%, 2-methyl-4-isothiazolin-3-one at 0.00002% and 2-bromo-2-nitropropane-1,3-diol at 0.0015% as preservatives.

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

POTENTIAL SKIN SENSITIZER

REGISTRATION NO.: **27833**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **1 L - Bulk**

Syngenta Canada Inc.
140 Research Lane, Research Park
Guelph, Ontario N1G 4Z3
Telephone: 1-877-964-3682

LABEL

[ ] indicates optional or alternate wording

1.0 NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

2.0 FIRST AID

IN CASE OF POISONING, contact a physician or a poison control centre **IMMEDIATELY.** Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed, call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing, take off contaminated clothing. Rinse skin **IMMEDIATELY** with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

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

3.0 TOXICOLOGICAL INFORMATION

Treat symptomatically if ingested or in contact with eyes or skin. If gastric lavage is considered necessary, prevent aspiration of gastric material. Administration of activated charcoal may also be considered.

4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Avoid working in spray mist. Avoid all drift or contact with other vegetation.

May irritate eyes. Avoid contact with eyes. Potential skin sensitizer.

DO NOT use or store product near heat or open flame. **DO NOT** apply beyond the field boundary.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

Apply only to agricultural crops when the potential for drift to areas of human habitation or areas

of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

When tank mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels.

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

5.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. In addition, wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair. Gloves are not required during application within a closed cab.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash splashes from skin IMMEDIATELY with plenty of water. Remove PPE immediately after handling this product. Wash the outside of gloves with soap and water before removing. As soon as possible, wash thoroughly and change into clean clothing. After spraying, wash hands and shower thoroughly with soap and water.

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.

Wear freshly laundered clothes daily.

While using product, do not eat, drink or smoke. Wash hands and exposed skin with soap and water thoroughly before eating, drinking, smoking, applying cosmetics or using the toilet.

6.0 ENVIRONMENTAL PRECAUTIONS

Toxic to small wild mammals, aquatic organisms and to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body. Additional guidance can be found on the Runoff Mitigation portion of the Canada.ca website .

7.0 STORAGE

Store this product away from food or feed

Always store product in original container with top closed in a cool, dry place. CALLISTO® 480SC Herbicide can be stored in freezing conditions. If frozen, allow to thaw and agitate thoroughly prior to use.

8.0 DISPOSAL

For information on disposal of unused, unwanted product, contact the registrant or the provincial or territorial regulatory agency. Contact the registrant and the provincial or territorial regulatory agency in case of a spill, and for clean up of spills.

[For recyclable containers
DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
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If there is no container collection site in your area, dispose of the container in accordance with provincial or territorial requirements.]

[For returnable containers
DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).]

[For refillable containers
For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. DO NOT reuse this container for any other purpose.]

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL 1-800-327-8633 (FASTMED)

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ACTIVE INGREDIENT:
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Contains 1,2-benzisothiazolin-3-one at 0.0015 % as a preservative OR contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00006%, 2-methyl-4-isothiazolin-3-one at 0.00002% and 2-bromo-2-nitropropane-1,3-diol at 0.0015% as preservatives.

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Pamphlet

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If on skin or clothing, take off contaminated clothing. Rinse skin **IMMEDIATELY** with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

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

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Treat symptomatically if ingested or in contact with eyes or skin. If gastric lavage is considered necessary, prevent aspiration of gastric material. Administration of activated charcoal may also be considered.

4.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Avoid working in spray mist. Avoid all drift or contact with other vegetation.

May irritate eyes. Avoid contact with eyes. Potential skin sensitizer.

DO NOT use or store product near heat or open flame. **DO NOT** apply beyond the field boundary.

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Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash splashes from skin IMMEDIATELY with plenty of water. Remove PPE immediately after handling this product. Wash the outside of gloves with soap and water before removing. As soon as possible, wash thoroughly and change into clean clothing. After spraying, wash hands and shower thoroughly with soap and water.

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.

Wear freshly laundered clothes daily.

While using product, do not eat, drink or smoke. Wash hands and exposed skin with soap and water thoroughly before eating, drinking, smoking, applying cosmetics or using the toilet.

6.0 ENVIRONMENTAL PRECAUTIONS

Toxic to small wild mammals, aquatic organisms and to non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body. Additional guidance can be found on the Runoff Mitigation portion of the Canada.ca website

7.0 STORAGE

Store this product away from food or feed

Always store product in original container with top closed in a cool, dry place. CALLISTO® 480SC Herbicide can be stored in freezing conditions. If frozen, allow to thaw and agitate thoroughly prior to use.

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9.0 PRODUCT INFORMATION

CALLISTO 480SC Herbicide is a suspension concentrate herbicide that has soil residual activity and provides selective control or suppression of annual broadleaf weeds in corn, and other listed crops. CALLISTO 480SC Herbicide has a high level of crop safety to allow for flexibility in application timing in corn, and cranberries.

CALLISTO 480SC Herbicide may be tank mixed with a range of herbicides as part of a one pass broad-spectrum weed control program in corn.

In post-emergent applications, CALLISTO 480SC Herbicide is absorbed through the leaves and is rapidly translocated to the plant's growing points.

CALLISTO 480SC Herbicide may also be tank mixed with a post-emergent grass herbicide for broader spectrum post-emergent weed control in corn.

9.1 Use Precautions

CALLISTO 480SC Herbicide may be used pre-emergent on field corn, production seed corn and sweet corn. Post-emergent applications may be made on field corn, and on seed and sweet corn (see Minor Use section). Not all seed corn inbreds and sweet corn varieties have been tested; the use of CALLISTO 480SC Herbicide must be approved by the seed company and comply with the directions given by the seed company (corn).

Although CALLISTO 480SC Herbicide has a flexible recropping profile, certain crops may be sensitive to low concentrations in the soil. Therefore, careful consideration should be given to crop rotation plans prior to using CALLISTO 480SC Herbicide (refer to *"RECROPPING GUIDELINES"*).

Dry conditions following application may reduce the pre-emergent activity of CALLISTO 480SC Herbicide. If an activating rain (12 mm) is not received within 7-10 days after a pre-emergent application, rotary hoeing is suggested to activate the herbicide.

Do not apply to soils that contain less than 1% or more than 10% organic matter.

When applied post emergent, thorough coverage of emerged weeds is essential for effective control with CALLISTO 480SC Herbicide. Although weed competition is quickly halted, visual symptoms of dying weeds (discolouration) may take up to 2 weeks to appear depending on the weed species and growing conditions.

Optimum control of emerged weeds will be obtained when weeds are actively growing. Under unfavourable conditions, such as drought, heat, flooding, prolonged cool temperatures or insufficient fertility, adequate control may not be achieved and re-growth may occur.

Temporary crop injury (bleaching) may occur under extreme weather conditions or when the crop is under stress due to inadequate or abnormally high moisture levels or extreme temperatures. The symptoms are most visible where excessive rates have been applied, such as sprayer overlaps. Corn quickly outgrows these effects and continues to grow normally.

Do not make a foliar post-emergent application of any organophosphate or carbamate insecticide within 7 days before or 7 days after a CALLISTO 480SC Herbicide application or severe injury may occur to corn. Syngenta Canada Inc. will not be held responsible for losses or damage resulting from such use.

CALLISTO 480SC Herbicide may be applied prior to or following a pyrethroid-type insecticide such as FORCE® Insecticide or MATADOR® 120EC Insecticide.

Do not cultivate corn within 7 days before or after a post-emergent CALLISTO 480SC Herbicide application.

Make only one application of CALLISTO 480SC Herbicide per year in all crops except in

cranberries for control of cinquefoil, goldenrod, rushes and sedges where a second application is required.

10.0 DIRECTIONS FOR USE

10.1 General Restrictions

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT apply by air.

DO NOT apply with airblast equipment.

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Syngenta Canada Inc. at 1-87-SYNGENTA (1-877-964-3682) for information before applying any tank mix that is not specifically recommended on this label.

Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) of all potential tank-mixes under all environmental conditions or for all crop varieties. Tank mixes that are not specifically listed on this label should be tested on a small area first, under local conditions and using standard practices, to confirm the tank mix is suitable for widespread application.

To determine the physical compatibility of this product with other products, use a jar test.

Always read and follow label directions including WALES mixing order.

Do not use nitrogen solutions (such as 28-0-0 UAN) as a carrier to corn that has emerged.

10.2 Ground Application

Field sprayer application: **DO NOT** apply when wind speed is less than 1 km/h. Avoid application of this product when winds are gusty. **DO NOT** apply with sprays finer than the American Society of Agricultural and Biological Engineers (ASABE) S572 (572.1 to 572.3) medium classification. Boom height must be 60 cm or less above the crop or ground.

10.2.1 Mixing Instructions

1. Ensure that the sprayer is totally clean.
2. Fill the sprayer half full with water. Engage gentle agitation.
3. Ensure that the agitation system is working properly and that it creates a rippling or rolling action on the water surface.
4. Add CALLISTO 480SC Herbicide and PRIMEXTRA® II MAGNUM Herbicide or AATREX® Liquid 480 Herbicide (if an applicable tankmix) slowly and agitate until completely dispersed. To ensure complete dispersion, wait 2 or 3 minutes after the last of the herbicide has been added to the tank.
5. Fill the tank to three quarters full with water.
6. Add DUAL II MAGNUM® Herbicide if required.
7. Add the non-ionic surfactant if applicable at 0.2% v/v.
8. Add glyphosate-containing product if required. Refer to the label of the tank mix partner and the surfactant for the specific mixing instructions.
9. Continue agitation while completing the filling of the sprayer with water.
10. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time.
11. If agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying. **CALLISTO 480SC Herbicide must be sprayed the same day as mixing**.
12. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

10.2.2 Spraying Instructions

1. **Water Volume:** Apply in 100 – 200 litres per hectare.
2. **Spray Pressure:** 206 – 300 kPa
3. **Spray Nozzles:** Flat Fan with 50 mesh or larger screens. For uniform coverage and increased penetration of the crop canopy, set the nozzles at a downward angle of 90 degrees (90°).
4. **Surfactant:** Post-emergent applications of CALLISTO 480SC Herbicide must be applied with a non-ionic surfactant at 0.2% v/v (2.0 L for each 1000 L of spray mixture).

10.2.3 Equipment Clean-Up

Before Spraying:

- Prior to using CALLISTO 480SC Herbicide, ensure that the spray tank, lines and filter are thoroughly clean.

After Spraying:

- Thoroughly clean application equipment immediately after spraying. **DO NOT** allow CALLISTO 480SC Herbicide residue to dry within the spray tank
- When using tank mixes, consult the tank-mix partner label for additional clean-up instructions.
- The following recommendations are provided:
  1. Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/detergent mixture. Rinse with clean water. **DO NOT** clean the sprayer near desirable vegetation, wells or other water sources.
  2. Remove all nozzles and screens and wash separately.

3. Dispose of all rinsate in accordance with provincial or territorial regulations.

10.3 Application in Liquid Fertilizers

Nitrogen solutions (such as 28-0-0 UAN), excluding suspension fertilizers, may replace water as a carrier for pre-emergence application in corn. Do not use nitrogen solutions as a carrier to corn that has emerged. Constant agitation is necessary to maintain a uniform mixture during application.

10.4 Spray Buffer Zones

A spray buffer zone is NOT required for uses with hand-held application equipment permitted on this label.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop/Site	Spray buffer zone (metres) required for the protection of:	
		Aquatic habitat	Terrestrial habitat
Field sprayer*	Field corn, seed and sweet corn, flax, asparagus (established), rhubarb, pearl millet, sorghum, highbush and lowbush blueberry, and turf	1	4
	Cranberry	1	10

When tank mixes are permitted, consult the labels of the tankmix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASABE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Drift Mitigation portion of the Canada.ca website.

10.5 Pre-Harvest Intervals (PHI)

Crops	PHI (days)
Field corn grain/stover	100
Field corn forage	45
Sweet corn	50

11.0 CROP USE DIRECTIONS

11.1 Corn

11.1.1 Pre-emergent Application: (Field Corn, Production Seed Corn and Sweet Corn) – Eastern Canada Only

Apply CALLISTO 480SC Herbicide at 0.30 L per hectare in a spray volume of 200 L and a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label).

CALLISTO 480SC Herbicide will control:

lamb's-quarters	wild mustard
redroot pigweed	common ragweed (suppression)
velvetleaf	

CALLISTO 480SC Herbicide tank-mixed with DUAL II MAGNUM Herbicide, PRIMEXTRA II MAGNUM Herbicide, DUAL II MAGNUM Herbicide plus AATREX LIQUID 480 Herbicide will provide broad-spectrum control of annual broadleaf and grass weeds. Consult the tank mix partner label for precautions, use rates and weeds controlled.

Use Rates for Pre-emergent Application

Field Corn, Production Seed Corn and Sweet Corn – Pre-emergent	
APPLICATION TIMING	Pre-emergent
PRODUCT RATE	0.30 L/ha
WEEDS CONTROLLED	Broadleaf Weeds
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
APPLICATION TIMING	Pre-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	1.25 – 1.75 L/ha DUAL II MAGNUM Herbicide
WEEDS CONTROLLED	Broadleaf Weeds and Annual Grasses
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
APPLICATION TIMING	Pre-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	3.0 – 4.0 L/ha PRIMEXTRA II MAGNUM Herbicide
WEEDS CONTROLLED	Broadleaf Weeds and Annual Grasses
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.

APPLICATION TIMING	Pre-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	1.25 – 1.75 L/ha DUAL II MAGNUM Herbicide + 2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide
WEEDS CONTROLLED	Broadleaf Weeds and Annual Grasses
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
NOTES	Consult the label of the product(s) tank mixed with CALLISTO 480SC Herbicide for specific instructions regarding grass and broadleaf weeds, soil-type variations, and rotational crop, grazing or other restrictions.

11.1.2 Early Post-emergent Application: (Field Corn only) - Eastern Canada Only– For Seed and Sweet Corn Uses and Crop Stages see Minor Use Section

Apply CALLISTO 480SC Herbicide at 0.30 L per hectare in a spray volume of 200 L and a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label).

CALLISTO 480SC Herbicide will control:

lamb's-quarters	wild mustard
redroot pigweed	common ragweed (suppression)
velvetleaf	

CALLISTO 480SC Herbicide tankmixed with DUAL II MAGNUM Herbicide, PRIMEXTRA II MAGNUM Herbicide, DUAL II MAGNUM Herbicide plus AATREX Liquid 480 Herbicide will provide broad-spectrum control of annual broadleaf and grass weeds. Consult the tank mix partner labels for precautions, use rates and weeds controlled.

Use Rates for Early Post-emergent Application
(Spike to 2 leaf stage of corn and cotyledon to 2 leaf stage of weeds)

Field Corn Only – Early Post-emergent Application	
APPLICATION TIMING	Early Post-emergent
PRODUCT RATE	0.30 L/ha
WEEDS CONTROLLED	Broadleaf Weeds
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
APPLICATION TIMING	Early Post-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	1.25 – 1.75 L/ha DUAL II MAGNUM Herbicide
WEEDS CONTROLLED	Broadleaf Weeds and Annual Grasses
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.

APPLICATION TIMING	Early Post-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	3.0 – 4.0 L/ha PRIMEXTRA II MAGNUM Herbicide
WEEDS CONTROLLED	Broadleaf Weeds and Annual Grasses
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
APPLICATION TIMING	Early Post-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	1.25 – 1.75 L/ha DUAL II MAGNUM Herbicide + 2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide
WEEDS CONTROLLED	Broadleaf Weeds and Annual Grasses
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
NOTES	Consult the label of the product(s) tank mixed with CALLISTO 480SC Herbicide for specific instructions regarding grass and broadleaf weeds, soil-type variations, and rotational crop, grazing or other restrictions.

11.1.3 Late Post-emergent Application: (Field Corn only) - Eastern Canada only – For Seed and Sweet Corn Uses and Crop Stages see Minor Use Section

Apply CALLISTO 480SC Herbicide at 0.21 L per hectare in a spray volume of 100-200 L of water and a minimum pressure of 206 kPa (refer to the "*MIXING AND SPRAYING INSTRUCTIONS*" section of this label).

Always add a spray surfactant. Use a non-ionic surfactant at 0.20% v/v.

For best results, apply CALLISTO 480SC Herbicide to actively growing weeds. Weeds that emerge after an application of CALLISTO 480SC Herbicide will be controlled after they absorb the herbicide from the soil provided there is sufficient moisture for uptake.

CALLISTO 480SC Herbicide will control:

eastern black nightshade	redroot pigweed
velvetleaf	common ragweed (suppression only)

CALLISTO 480SC Herbicide tank mixed with AATREX Liquid 480 Herbicide will provide control of all four weeds listed above. CALLISTO 480SC Herbicide tankmixed with AATREX Liquid 480 Herbicide and a glyphosate containing product will provide control of all four weeds listed above plus emerged annual and perennial weeds for use ONLY on glyphosate tolerant corn. Consult tank mix partner labels for precautions.

Use Rates for Post Emergent Application
(3 to 8 leaf stage of corn and up to 8 leaf stage of broadleaf weeds)

Field Corn Only – Post-emergent Application	
APPLICATION TIMING	Post-emergent
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
WEEDS CONTROLLED	Eastern black nightshade, redroot pigweed, velvetleaf
WEEDS SUPPRESSED	Common ragweed
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
APPLICATION TIMING	Post-emergent
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.58 L/ha AATREX Liquid 480 Herbicide + 0.2% v/v non-ionic surfactant
WEEDS CONTROLLED	Eastern black nightshade, redroot pigweed, velvetleaf, common ragweed
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
APPLICATION TIMING	Post-emergent
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	1.67 L/ha glyphosate (of a 540 g ae/L formulation) + 0.2% v/v non-ionic surfactant Some perennial weeds may not be controlled with this rate of glyphosate. Consult the glyphosate product label regarding perennial weeds controlled. For glyphosate formulations that are not 540 g ae/L, refer to the glyphosate product label to determine the appropriate rate for the target weeds.
WEEDS CONTROLLED	Weeds controlled by CALLISTO 480SC Herbicide plus emerged annual and perennial weeds. **For use ONLY on glyphosate tolerant corn.**
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.

APPLICATION TIMING	Post-emergent
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.58 L/ha AATREX Liquid 480 Herbicide + 1.67 L/ha glyphosate (of a 540 g ae/L formulation) + 0.2% v/v non-ionic surfactant Some perennial weeds may not be controlled with this rate of glyphosate. Consult the glyphosate product label regarding perennial weeds controlled. For glyphosate formulations that are not 540 g ae/L, refer to the glyphosate product label to determine the appropriate rate for the target weeds.
WEEDS CONTROLLED	Weeds controlled by tank mixture of CALLISTO 480SC Herbicide + AATREX Liquid 480 Herbicide plus emerged annual and perennial weeds **For use ONLY on glyphosate tolerant corn**
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
NOTES	Consult the label of the product(s) tank mixed with CALLISTO 480SC Herbicide for specific instructions regarding grass and broadleaf weeds, soil-type variations, and rotational crop, grazing or other restrictions.

11.1.4 Late Post-emergent Application: (Field Corn only) – Manitoba and Southern Alberta only

Field Corn (Post-emergent – 2 leaf and up to and including 6 leaf corn) Manitoba land (all) & Southern Alberta (Irrigated land ONLY)	
APPLICATION TIMING	Post-emergent
PRODUCT RATE	0.156 L/ha (75 g ai/ha)
TANK MIX PARTNER RATE	AATREX Liquid 480 Herbicide at application rate: minimum 0.618 L/ha (296.6 g ai/ha) + non-ionic surfactant at 0.20% v/v
WEEDS CONTROLLED	Volunteer canola (cotyledon to 4 leaf) control when tank mixed with AATREX Liquid 480 Herbicide
APPLICATION METHOD	Ground application only. Apply in a minimum of 100 L of water per hectare.
NOTES	Weed control following application of CALLISTO 480SC Herbicide in tank mix with AATREX Liquid 480 Herbicide, can be reduced or delayed under stress conditions such as drought, heat, insufficient fertility, flooding or prolonged cool temperatures. Optimum weed control will be obtained if application of CALLISTO 480SC Herbicide in tank mix with AATREX Liquid 480 Herbicide is delayed until the stress conditions have ended and weeds are once again actively growing.

12.0 MINOR USES

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Syngenta Canada Inc. under the User Requested Minor Use Label Expansion program. For these uses, Syngenta Canada Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

12.1 Field Corn (Eastern Canada Only)

CROP	**Field Corn** (Eastern Canada Only) – apply at 3 – 8 leaf stage of corn
WEEDS CONTROLLED	Tall Waterhemp
TIMING	Pre-emergent
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	3 – 4 L/ha PRIMEXTRA II MAGNUM Herbicide in 200 L carrier/ha Use higher rate of PRIMEXTRA II MAGNUM Herbicide for heavier weed problems.
REMARKS	Make only one application per year. Apply by ground equipment only.
WEEDS CONTROLLED	Volunteer Adzuki Bean (*Vigna angularis*), large crabgrass (*Digitaria sanguinalis*), and Tall Waterhemp
WEEDS SUPPRESSED	Giant Ragweed, Common Cocklebur
TIMING	Post-emergent Apply at the unifoliate to trifoliate leaf stage of adzuki bean, at the 1-6 leaf stage of large crabgrass, when giant ragweed is at the cotyledon-10 leaf stage and up to the 8 leaf stage of tall waterhemp and when common cocklebur is up to the cotyledon – 6 leaf stage.
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.58 L/ha AATREX Liquid 480 Herbicide + 0.2% v/v non-ionic surfactant in 100 - 200 L water/ha
REMARKS	Make only one application per year. Apply by ground equipment only.
NOTES 1. Consult tank mix partner label for precautions.	

12.2 Seed and Sweet Corn (Eastern Canada and British Columbia Only)

CROP	**Seed and Sweet Corn** (Eastern Canada and British Columbia Only)
TIMING	Late post emergence (3-6 leaf stage)
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
REMARKS	Make only one application per year. Apply in 100-200 L water/ha at 205-300 kPa. **DO NOT** apply by air. Do not harvest sweet corn treated with CALLISTO 480SC Herbicide within 50 days of treatment. Harvest seed corn at the normal interval. Seed corn inbreds and sweet corn varieties may vary in their tolerance to herbicides, including CALLISTO 480SC Herbicide. Since not all seed corn inbreds or sweet corn varieties have been tested for tolerance to CALLISTO 480SC Herbicide, first use of CALLISTO 480SC Herbicide should be limited to a small area of each variety to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific seed corn inbreds to CALLISTO 480SC Herbicide. DO NOT apply on Delmonte 2038 as unacceptable crop injury will occur.
NOTES 1. Consult tank mix partner label for precautions.	

12.3 Established Cranberry Beds

CROP	Established Cranberry Beds
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, and wild mustard
WEEDS SUPPRESSED	Common ragweed, vetch and creeping buttercup
TIMING	Pre-emergent (up to 2 leaf stage) and early post-emergent to the weeds
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year except for control of cinquefoil, goldenrod, rushes and sedges where a second application is required. Allow for a minimum of 14 days between applications. Apply in 200 L water/ha for pre-emergence application and in 100 - 200 L water/ha for post-emergence application at 206 - 300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment. **DO NOT** apply CALLISTO 480SC Herbicide through any type of irrigation equipment. Bearing Beds – Apply between bud break and fruit set. Do not harvest within 60 days of treatment. Non-Bearing Beds – Apply between bud break and 60 days prior to fall or winter flooding. **DO NOT** harvest within 365 days of treatment. After fall application of CALLISTO 480SC Herbicide, do not apply again the following spring. **DO NOT** flood within 60 days of treatment. **DO NOT** apply directly to water or areas where surface water is present. **DO NOT** spray to runoff. **DO NOT** apply if rainfall or sprinkler irrigation for frost protection is expected within 48 hours. Wait at least 18 months after the last CALLISTO 480SC Herbicide application in cranberries before replanting cranberries.

OR	
WEEDS CONTROLLED	Eastern black nightshade, redroot pigweed, and velvetleaf
WEEDS SUPPRESSED	Common ragweed, vetch and creeping buttercup
TIMING	Late post emergent (3 to 8 leaf weed stage) to the weeds
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
REMARKS	Make only one application per year except for control of cinquefoil, goldenrod, rushes and sedges where a second application is required. Allow for a minimum of 14 days between applications. Apply in 200 L water/ha for pre-emergence application and in 100 - 200 L water/ha for post-emergence application at 206 - 300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment. **DO NOT** apply CALLISTO 480SC Herbicide through any type of irrigation equipment. Bearing Beds – Apply between bud break and fruit set. Do not harvest within 60 days of treatment. Non-Bearing Beds – Apply between bud break and 60 days prior to fall or winter flooding. **DO NOT** harvest within 365 days of treatment. After fall application of CALLISTO 480SC Herbicide, do not apply again the following spring. **DO NOT** flood within 60 days of treatment. **DO NOT** apply directly to water or areas where surface water is present. **DO NOT** spray to runoff. **DO NOT** apply if rainfall or sprinkler irrigation for frost protection is expected within 48 hours. Wait at least 18 months after the last CALLISTO 480SC Herbicide application in cranberries before replanting cranberries.

OR	
WEEDS CONTROLLED	Eastern black nightshade, redroot pigweed, velvetleaf. goldenrod
WEEDS SUPPRESSED	Common ragweed, vetch, creeping buttercup, cinquefoil (*Potentilla* spp.). rushes (*Juncus Canadensis, J. effuses, J. bufonlus, J. tenuis),* and sedges *(Carex* spp.)
TIMING	Post emergent (3 to 8 leaf weed stage) to the weeds
PRODUCT RATE	2 applications of 0.21 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
REMARKS	Make only one application per year except for control of cinquefoil, goldenrod, rushes and sedges where a second application is required. Allow for a minimum of 14 days between applications. Apply in 200 L water/ha for pre-emergence application and in 100 - 200 L water/ha for post-emergence application at 206 - 300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment. **DO NOT** apply CALLISTO 480SC Herbicide through any type of irrigation equipment. Bearing Beds – Apply between bud break and fruit set. Do not harvest within 60 days of treatment. Non-Bearing Beds – Apply between bud break and 60 days prior to fall or winter flooding. **DO NOT** harvest within 365 days of treatment. **DO NOT** flood within 60 days of treatment. **DO NOT** apply directly to water or areas where surface water is present. **DO NOT** spray to runoff. **DO NOT** apply if rainfall or sprinkler irrigation for frost protection is expected within 48 hours. Wait at least 18 months after the last CALLISTO 480SC Herbicide application in cranberries before replanting cranberries.

NOTES

1. Consult tank mix partner label for precautions.

12.4 Asparagus (Established)

CROP	**Asparagus** (Established)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-emergent to asparagus (established)
PRODUCT RATE	0.30 L/ha
REMARKS	Can be applied by broadcast or banded application. For banded applications, the application must be made to account for band width (i.e. to deliver desired rate per hectare). Apply after fern mowing, disking, or other tillage operation but prior to spear emergence. Apply in 100 – 200 L/ha of water at 206 – 300 kPa. Make only 1 application per season. If weeds are emerged at the time of CALLISTO 480SC Herbicide application, the addition of a non-ionic surfactant at the rate of 0.2% v/v is recommended. If weeds have not emerged, no adjuvant is recommended. Use of CALLISTO 480SC Herbicide on asparagus (established) may cause bleaching and may even lead to yield reduction. **DO NOT** apply by air. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

12.5 Highbush Blueberry (Bearing and Non-Bearing Years)

CROP	**Highbush Blueberry** (Bearing and Non-Bearing Years)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-emergent (up to 2 leaf weed stage) to weeds
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year. Apply CALLISTO 480SC Herbicide up to 8 leaf stage to weeds and prebloom to crop Apply broadcast (directed spray to the base of the plant) ground application Apply in 100-200 L/ha water at 206-300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment.
OR	
WEEDS CONTROLLED	Eastern black nightshade, velvetleaf, redroot pigweed
WEEDS SUPPRESSED	Common ragweed
TIMING	Post-emergent (3 to 8 leaf weed stage) to weeds
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
REMARKS	Make only one application per year. Apply CALLISTO 480SC Herbicide up to 8 leaf stage to weeds and prebloom to crop Apply broadcast (directed spray to the base of the plant) ground application Apply in 100-200 L/ha water at 206-300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment.

12.6 Lowbush Blueberry (Bearing and Non-Bearing Years)

CROP	**Lowbush Blueberry** (Bearing and Non-Bearing Years)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-emergent (up to 2 leaf weed stage) to weeds
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year. Apply CALLISTO 480SC Herbicide up to 8 leaf stage to weeds. Do not harvest crop within 60 days of application. Apply broadcast (over the top of the blueberries) ground application. Apply in 100-200 L/ha water at 206-300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment.
OR	
WEEDS CONTROLLED	Eastern black nightshade, velvetleaf, redroot pigweed
WEEDS SUPPRESSED	Common ragweed
TIMING	Post-emergent (3 to 8 leaf weed stage) to weeds
PRODUCT RATE	0.30 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
REMARKS	Make only one application per year. Apply CALLISTO 480SC Herbicide up to 8 leaf stage to weeds. Do not harvest crop within 60 days of application. Apply broadcast (over the top of the blueberries) ground application. Apply in 100-200 L/ha water at 206-300 kPa. **DO NOT** apply by air. **DO NOT** apply with airblast equipment.

12.7 Sod (Production Only)

CROP	**Sod** (Production Only)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-emergent (up to 2 leaf weed stage) to weeds
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year. Apply CALLISTO 480SC Herbicide pre-emergence to weeds in established sod OR prior to, or post-seeding and prior to emergence of weeds OR post-emergence to weeds (regardless of whether prior to, or post-seeding) Cool-season turf species and varieties may vary in their tolerance to herbicides, including CALLISTO 480SC Herbicide. Since not all cool-season turf varieties have been tested for tolerance to CALLISTO 480SC Herbicide, first use of CALLISTO 480SC Herbicide should be limited to a small area of each variety or mixture to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific cool-season turf varieties to CALLISTO 480SC Herbicide. Do not apply CALLISTO 480SC Herbicide to creeping bentgrass. Apply in 250 L/ha of water. Make application close to anticipated weed seed germination. Apply at grass seeding or close to seeding for best performance. Weed control is most effective on young, actively growing weeds. Avoid spraying on newly germinated turfgrass plants. Efficacy will be reduced under moisture stress or from applications to mature weeds. CALLISTO 480SC Herbicide may reduce density of fine fescue seedings. CALLISTO 480SC Herbicide can be used on grass seed blends that contain less than 20% by weight of hard or fine fescue. Wait until the newly germinated turf has been mowed two times or four weeks after emergence (whichever is longer) before making a post-emergence application. **DO NOT** apply by air. Use only ground boom equipment when applying this product. Do not apply CALLISTO 480SC Herbicide through any type of irrigation equipment. Do not apply directly to water or areas where surface water is present. Do not spray to runoff.

OR	
WEEDS CONTROLLED	Eastern black nightshade, velvetleaf, redroot pigweed
WEEDS SUPPRESSED	Common ragweed
TIMING	Post-emergent (3 to 8 leaf weed stage) to weeds
PRODUCT RATE	0.21 L/ha
TANK MIX PARTNER RATE	0.2% v/v non-ionic surfactant
REMARKS	Make only one application per year. Apply CALLISTO 480SC Herbicide pre-emergence to weeds in established sod OR prior to, or post-seeding and prior to emergence of weeds OR post-emergence to weeds (regardless of whether prior to, or post-seeding) Cool-season turf species and varieties may vary in their tolerance to herbicides, including CALLISTO 480SC Herbicide. Since not all cool-season turf varieties have been tested for tolerance to CALLISTO 480SC Herbicide, first use of CALLISTO 480SC Herbicide should be limited to a small area of each variety or mixture to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific cool-season turf varieties to CALLISTO 480SC Herbicide. Do not apply CALLISTO 480SC Herbicide to creeping bentgrass. Apply in 250 L/ha of water. Make application close to anticipated weed seed germination. Apply at grass seeding or close to seeding for best performance. Weed control is most effective on young, actively growing weeds. Avoid spraying on newly germinated turfgrass plants. Efficacy will be reduced under moisture stress or from applications to mature weeds. CALLISTO 480SC Herbicide may reduce density of fine fescue seedings. CALLISTO 480SC Herbicide can be used on grass seed blends that contain less than 20% by weight of hard or fine fescue. Wait until the newly germinated turf has been mowed two times or four weeks after emergence (whichever is longer) before making a post-emergence application. **DO NOT** apply by air. Use only ground boom equipment when applying this product. Do not apply CALLISTO 480SC Herbicide through any type of irrigation equipment. Do not apply directly to water or areas where surface water is present. Do not spray to runoff.

12.8 Flax (Eastern Canada Only)

CROP	**Flax** (Eastern Canada Only)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-emergent to flax and weeds
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application of CALLISTO 480SC Herbicide per year. Apply in 200 L water and a minimum pressure of 206 kPa Apply by ground equipment only. **DO NOT** apply by air. Applications of CALLISTO 480SC Herbicide to emerged flax can result in severe crop injury. Do not graze treated immature crops or cut for forage or hay.

12.9 Pearl Millet (Eastern Canada Only)

CROP	**Pearl Millet** (Eastern Canada Only)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-plant
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year. Apply in 100-200 L water/ha at 205-300 kPa. **DO NOT** apply by air. Do not apply to pearl millet grown in course textured soils. Do not apply more than 0.30 L/ha per crop **or** per year. Apply 7-14 days before planting pearl millet. Apply at up to the 2-leaf stage of weeds. **Application to emerged pearl millet can result in severe crop injury.**

12.10 Sorghum (Eastern Canada Only)

CROP	**Sorghum** (Eastern Canada Only)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-plant
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year. Apply in 100-200 L water/ha at 205-300 kPa. **DO NOT** apply by air. Do not apply to sorghum grown in course textured soils nor to sudangrass, or sorghum-sudangrass hybrids. Do not apply more than 0.30 L/ha per crop **or** per year. Apply 7-14 days before planting sorghum. Apply at up to the 2-leaf stage of weeds. **Application to emerged sorghum can result in severe crop injury.**

12.11 Rhubarb (Established)

CROP	**Rhubarb** (Established)
WEEDS CONTROLLED	Lamb's-quarters, redroot pigweed, velvetleaf, wild mustard
WEEDS SUPPRESSED	Common ragweed
TIMING	Pre-emergent to crop, pre-emergent up to 2-leaf stage of weeds
PRODUCT RATE	0.30 L/ha
REMARKS	Make only one application per year. Do not harvest within 42 days of application. Apply in 200 L/ha water at 206-300 kPa. **DO NOT** apply by air. CAUTION: Apply to dormant (prior to spring greenup) rhubarb. Applications of CALLISTO 480SC Herbicide to rhubarb that is not dormant will result in crop injury. Rainfall or irrigation after the CALLISTO 480SC Herbicide application may increase the risk of injury to emerging rhubarb. Repeated use of CALLISTO 480SC Herbicide in low pH soils may cause injury to rhubarb plants. Wait at least 18 months after the last CALLISTO 480SC Herbicide application in rhubarb before replanting rhubarb.

13.0 RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, CALLISTO 480SC Herbicide is a Group 27 herbicide. Any weed population may contain or develop plants naturally resistant to CALLISTO 480SC Herbicide and other Group 27 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may

also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

Where possible, rotate the use of CALLISTO 480SC Herbicide or other Group 27 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 when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.

Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed. Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

For further information and to report suspected resistance, contact company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

14.0 RECROPPING GUIDELINES

Certain crops have been shown to be sensitive to low residues of CALLISTO 480SC Herbicide in the soil. The minimum recropping interval is the time between the last application of CALLISTO 480SC Herbicide and the anticipated date of planting of the next crop.

To avoid injury to subsequent crops after an application at the recommended rate of CALLISTO 480SC Herbicide, the following recropping intervals should be observed.

CROP	MINIMUM RECROPPING INTERVAL (MONTHS) Eastern Canada	MINIMUM RECROPPING INTERVAL (MONTHS) Manitoba & Southern Alberta Irrigated Land
Winter Wheat	3	Bioassay
Canola	10	11[1, 2]
Spring wheat		
Oats		
Barley		
Field corn (grain or silage)		
Field Peas		11[1] (southern Alberta irrigated land only) with acceptable Bioassay
Seed corn		Bioassay
Sweet corn		Bioassay
Alfalfa	11	Bioassay
Potato		11[1] (southern Alberta irrigated land only)
Soybean		11[1, 2]
Transplanted tomato		Bioassay
White beans		Bioassay
Sugar beets	Bioassay	11[1] (southern Alberta irrigated land only) with acceptable Bioassay
All other crops	Bioassay	Bioassay

[1] Total precipitation during the (April to September) year of application is equal or greater than 275 mm in Southern Alberta irrigated land.
[2] Precipitation during the (April to October) year of application is equal or greater than 30yr average for local location in Manitoba.

Observe the recropping guidelines of any product(s) to be tank mixed with CALLISTO 480SC Herbicide.

In the event of crop failure, only field corn (grain or silage), seed corn, or sweet corn can be planted as a salvage crop in the same fields in which the failed crop was treated with CALLISTO 480SC Herbicide. An application of CALLISTO 480SC Herbicide must NOT be made to the salvage crop.

Land treated with CALLISTO 480SC Herbicide CAN ONLY BE PLANTED TO A CROP NOT LISTED IN THE PREVIOUS TABLE if a field bioassay can be successfully performed. The bioassay must indicate normal growth with no yield reductions.

A bioassay may be conducted in any year following the year of application to assess the tolerance of the tested crop intended for planting in the year following the bioassay. Do not conduct a bioassay in the year of application. When conducting a field bioassay, it is very important to select a representative area(s) of the field previously treated with CALLISTO 480SC Herbicide to plant the test crop(s).

15.0 FIELD BIOASSAY

1. Representative Sample:
Ensure that soil parameters such as soil texture, depth of topsoil layer, soil pH and

drainage of the test area selected are representative of the remainder of the field.

2. **Sample Size:**
   The seeded area of each selected bioassay crop must be large enough to ensure that reliable results are obtained. The seedbed preparations and seeding of the bioassay crop(s) should be conducted the same way as when the entire field would be planted.
3. **Other Residual Herbicides:**
   It is important that other herbicide products which are known to have residual activity were not applied to the field between the last application of CALLISTO 480SC Herbicide and the bioassay testing period. Avoid the use of other pesticides during the duration of the bioassay as they may damage the indicator crop(s).
4. **Comparisons:**
   Ideally, an untreated check strip in a neighbouring field should be established and monitored for comparison since growing conditions can vary greatly from year to year and may result in erroneous results.
5. **Assessment:**
   The site should be monitored regularly throughout the growing season. Watch for any damage to the crop such as thinning, yellowing or stunting. A yield sample should be taken and compared to an adjacent untreated field.

DO NOT ROTATE TO OTHER CROPS UNTIL THE BIOASSAY INDICATES NORMAL GROWTH WITH NO YIELD REDUCTIONS.
Failure to follow these recropping guidelines could result in injury to seeded crop(s).

ADHERE TO THESE PRODUCT LABELS FOR BROADLEAF WEEDS CONTROLLED, PRECAUTIONS, WARNINGS, RESTRICTIONS, TANK MIXING AND SPRAYING INSTRUCTIONS, ROTATIONAL CROPS AND DETAILED DIRECTIONS FOR USE REGARDING DOSAGE VARIATIONS ACCORDING TO SOIL TYPE.

SPRAYER CLEANUP:

To avoid subsequent injury to other crops, thoroughly clean application equipment immediately after spraying. Ensure that all traces of the product are removed. The following procedures are recommended:

1. Drain and flush tank, boom and all hoses for several minutes with clean water containing a household detergent. **Do not** clean the sprayer near desirable vegetation, wells or other water sources.
2. Fill the sprayer tank with clean water and add one litre of household ammonia (containing 3% ammonia) per 100 litres of water. Allow the solution to agitate for 15 minutes prior to flushing the solution through the boom and nozzles. Drain the system.
3. Remove the nozzles and screens and wash separately in a bucket containing the ammonia solution.
4. Thoroughly rinse the tank, hoses, booms, nozzles and screens with clean water for a minimum of 5 minutes to remove all traces of ammonia.
5. Dispose of all rinsings in accordance with provincial or territorial regulations.

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