

2023-2538  
2023-12-07

<b>GROUP</b>	<b>5</b>	<b>HERBICIDE</b>
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## **AATREX® LIQUID 480**

HERBICIDE

COMMERCIAL (AGRICULTURAL)

Liquid herbicide for selective weed control in corn, sorghum and switchgrass

### **ACTIVE INGREDIENT:**

Atrazine and related triazines ..... 480 g/L

Contains 1,2-benzisothiazolin-3-one at 0.019% as a preservative or contains 5-chloro-2-methyl-4-isothiazolin-3-one at 0.0007%, 2-methyl-4-isothiazolin-3-one at 0.0002%, and 2-bromo-2-nitropropane-1,3-diol at 0.016% as preservatives.

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

**CAUTION: EYE IRRITANT**

REGISTRATION NUMBER: **18450**  
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

## 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

**IF POISONING IS SUSPECTED**, call 1-800-327-8633 (FASTMED), 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. When large amounts have been ingested, gastric lavage may be required.

## 4.0 PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN.

Harmful if swallowed. May cause eye irritation. Avoid contact with eyes or prolonged contact with skin. Avoid inhalation of vapours or spray mist.

**CAUTION:** Do not graze treated immature crops or cut for fodder. In the case of corn, immature means before ear emergence. Sufficient data are not available to support such use. Do not harvest within 45 days of application on sweet corn and 60 days for field corn.

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)

During mixing and loading and otherwise handling the concentrate, wear a face shield in addition to chemical-resistant gloves, coveralls over a long-sleeved shirt and long pants, and shoes and socks. Wash the outside of the gloves before removing.

During application, cleanup and repair activities, wear chemical-resistant gloves and coveralls over a long-sleeved shirt and long pants, and shoes and socks. Wear chemical-resistant gloves if contact with spray nozzles is necessary. Avoid working in spray mist. Avoid all drift or contact with other vegetation.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Wash splashes from skin and eyes 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. Store and wash all protective clothing separately from household laundry.

Wear freshly laundered clothes daily.

Do not wear contaminated shoes.

While using product, do not eat, drink or use tobacco (including smoking). 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 non-target terrestrial plants and aquatic organisms. Observe the buffer zones and precautionary measures specified under DIRECTIONS FOR USE. USE ONLY ON LABELLED CROPS.

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay). Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip (buffer zone) between the treated area and the edge of the water body.

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow. Mixing and loading is not permitted within 30 m from aquatic habitats.

Avoid applying this product when heavy rain is forecast.

Atrazine is persistent and will carry over. It is recommended that any products containing atrazine not be used in areas treated with this product during the previous season.

## **7.0 SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS**

### **7.1 General Information**

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings used for application.

For the protection of non-target habitats, over-spray or drift to any body of water or other environmentally sensitive habitat must be avoided. The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### **7.2 Ground Application**

Do not apply AATREX® Liquid 480 Herbicide at rates greater than 3.1 L/ha. Apply atrazine at a maximum of 1.5 kg a.i./ha per year either as a pre- or post-emergent application before corn reaches 30 cm in height. Treatments can be made once or twice per year, but the maximum amount of atrazine used in a year cannot exceed 1.5 kg a.i./ha. Atrazine may be applied alone or as a registered tank mix partner. Refer to the tank mix partners for further instructions.

**DO NOT apply by air.**

**DO NOT** apply during periods of dead calm or when winds are gusty.

**DO NOT** overspray non-target terrestrial or aquatic habitats.

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

## **8.0 STORAGE**

Keep product away from food, drink and animal feed. Store product in original container, tightly closed, and in a safe place.

STORE IN A DRY PLACE.

Bulk sites must be diked around and under the bulk tank with an impermeable non-earthen dike. The dike must be large enough to hold and contain 110 percent of the capacity of the largest tank.

## **9.0 DISPOSAL**

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial 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.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**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,  
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BOOKLET

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Avoid applying this product when heavy rain is forecast.

Atrazine is persistent and will carry over. It is recommended that any products containing atrazine not be used in areas treated with this product during the previous season.

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### 7.1 General Information

Use good pesticide practices and apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings used for application.

For the protection of non-target habitats, over-spray or drift to any body of water or other environmentally sensitive habitat must be avoided. The interaction of equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

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**DO NOT apply by air.**

**DO NOT** apply during periods of dead calm or when winds are gusty.

**DO NOT** overspray non-target terrestrial or aquatic habitats.

## 8.0 STORAGE

Keep product away from food, drink and animal feed. Store product in original container, tightly closed, and in a safe place.  
STORE IN A DRY PLACE.

Bulk sites must be diked around and under the bulk tank with an impermeable non-earthen dike. The dike must be large enough to hold and contain 110 percent of the capacity of the largest tank.

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CALL 1-800-327-8633 (FASTMED)***

**10.0 PRODUCT INFORMATION**

**10.1 General Information**

AATREX Liquid 480 Herbicide provides selective control of broadleaf weeds and wild oats in corn. This product may be applied before or after weeds emerge.

**10.2 Weeds Controlled**

Wormseed Mustard	Wild Buckwheat
Wild Mustard	Lamb's-Quarters
Common Purslane	Redroot Pigweed
Ragweed	Volunteer Clover
Smartweed	Wild Oats
Lady's-Thumb	

NOTE: Some naturally occurring triazine tolerant biotypes of the above listed broadleaf weeds may not be controlled by atrazine alone. Refer to specific recommendations in the tank-mix section of this label or consult your local agricultural authority.

**11.0 DIRECTIONS FOR USE**

**11.1 General Information**

Do NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes. Do NOT apply during periods of dead calm or when winds are gusty. Do not apply this product through any type of irrigation system.

**DO NOT apply by air.**

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

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

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.

## 11.2 Application Information

Can be applied:

- Pre-plant incorporated (PPI)
- Pre-emergence
- Post-emergence

in either conventional tillage or minimum tillage programs.

If weeds escape a PPI or pre-emergence application, an additional post-emergence application may be necessary. Do not make more than one re-application per year and only in the spring.

### 11.2.1 Liquid Fertilizers (Corn)

For pre-plant incorporated and pre-emergence application, nitrogen solutions or complete liquid fertilizers may replace the water as a carrier.

**CAUTION:** Do not apply after the corn has emerged as there is danger of liquid fertilizer causing crop injury. If there is any doubt about compatibility, check by mixing a small amount of AATREX Liquid 480 Herbicide with the liquid fertilizer.

## 11.3 Mixing and Spraying Instructions

Protect sprayer operators from drift or mist. Additional information on spray drift management for GROUND APPLICATION is provided in the section "SPRAY DRIFT MANAGEMENT FOR GROUND APPLICATIONS". When low volumes of spray are applied, complete coverage and thorough application are essential for most effective results. Schedule applications in accordance

with local conditions. Consult your local agricultural authorities for specific use information. Where possible, use a nurse tank to fill your spray tank.

#### Mixing Steps:

1. Spray equipment should be thoroughly flushed with clean water before mixing AATREX Liquid 480 Herbicide.
2. Fill spray tank 1/2 full with carrier. Engage gentle agitation.
3. Pour in the required amount of wettable powder or wettable granule, if applicable. Agitate to ensure complete mixing.
4. Fill tank 3/4 full and add the AATREX Liquid 480 Herbicide and other SE or SC liquid products, if applicable. Agitate to ensure complete mixing.
5. Fill tank 9/10 full and add EC products or liquid solutions, as required.
6. Add non-ionic surfactant (NIS), where required, as directed in the crop use directions section.
7. Finish filling tank. Maintain gentle agitation during mixing and spraying operations.
8. Do not let stand without agitation.
9. Spray the pesticide suspension the same day as mixing.
10. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.
11. When using AATREX Liquid 480 Herbicide, clean tank immediately after use with a strong detergent and clean water.
  - Spray pressure 200 - 300 kPa
  - Spray volume - minimum 150 litres per hectare
  - Use 16-mesh suction screen. 50 mesh screens elsewhere on sprayer.

#### **11.4 Equipment Clean-Up**

To avoid subsequent injury to other crops, thoroughly clean application equipment immediately after spraying each day. Ensure that all traces of the product are removed. Do not allow residue to dry in spray tank. Do not allow solution to remain in lines or tank overnight.

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 application equipment 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 regulations.

#### **11.5 Buffer zones**

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

Method of application	Buffer zone required for the protection of:	
	Terrestrial habitat (m)	Aquatic habitat (m)
Field sprayer*	10	10

\*For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the canopy, the labeled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the canopy, the labeled buffer zones can be reduced by 30%.

## 11.6 Rotational Crop Restrictions

### WARNING:

Injury may occur if land treated with AATREX Liquid 480 Herbicide is planted to any crop other than field corn or sorghum in the same season. One year after application there is virtually no hazard to most rotational crops when annual weed label rates are applied. Sugar beets and tobacco are sensitive to AATREX Liquid 480 Herbicide and should not be planted on land treated with AATREX Liquid 480 Herbicide the previous year. When extended periods of dry weather occur during the year of treatment, there can be some injury to succeeding crops such as white beans, onions, peas, tomatoes and turnips. Injury is most likely to occur when the seedling crop is subjected to periods of stress e.g., during periods of abnormally hot, dry weather.

Under conditions of heavy rainfall sufficient to cause erosion, soil containing AATREX Liquid 480 Herbicide may wash to lower areas of land and injury to existing or subsequent crops other than corn may result.

THOROUGH TILLAGE INCLUDING PLOUGHING SHOULD PRECEDE THE PLANTING OF CROPS OTHER THAN CORN. PLOUGH THE LAND FLAT AS OPPOSED TO SETTING THE FURROW ON EDGE. UNEVEN APPLICATION OF AATREX LIQUID 480 HERBICIDE OR APPLICATION IN EXCESS OF RECOMMENDED RATES WILL NOT INJURE CORN BUT MAY RESULT IN THE INJURY OF SUCCEEDING CROPS OTHER THAN CORN.

## 12.0 CROP USE DIRECTIONS

### 12.1 Corn

#### FOR AATREX LIQUID 480 HERBICIDE ALONE, PPI AND PRE-EMERGENCE TREATMENTS

SOIL TYPE	RATE OF APPLICATION/HA
Light and Sandy	2.1 - 3.0 <sup>1</sup> L AATREX Liquid 480 Herbicide
Loams and Clays	3.1 L AATREX Liquid 480 Herbicide

<sup>1</sup> Use higher rate for heavy weed infestations.

Rainfall is required within 10 days or a shallow cultivation will be necessary.

**PREPLANT INCORPORATED TANK MIXES (Silage, Field, Sweet Corn)**

<b>WEEDS CONTROLLED</b>	<b>PRODUCT RATES</b>
Broadleaf Weeds and Wild Oats	2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide
Yellow Nutsedge, Annual Grasses and Broadleaf Weeds	2.1 - 3.1 L/ha + 1.25 – 1.75 L/ha AATREX Liquid 480 Herbicide DUAL II Magnum Herbicide

If tillage is intended after spraying, do not incorporate AATREX Liquid 480 Herbicide deeper than 5.0 cm.

CONSULT TANK MIX PARTNER LABELS FOR COMPLETE INSTRUCTIONS AND RESTRICTIONS.

**PRE-EMERGENT TANK MIXES (Silage, Field, Sweet Corn)**

<b>WEEDS CONTROLLED</b>	<b>PRODUCT RATES</b>
Broadleaf Weeds and Wild Oats	2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide
Broadleaf Weeds, Wild Oats and Triazine Tolerant Weeds <sup>2</sup> (Eastern Canada Only)	2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide + 600 g a.e./ha of a dicamba product <sup>1</sup> .
Annual Grasses and Broadleaf Weeds	2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide + 1.25 – 1.75 L/ha DUAL II Magnum Herbicide
Annual Grasses, Broadleaf Weeds and Triazine Tolerant Weeds (Eastern Canada Only)	2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide + 1.25 – 1.75 L/ha DUAL II Magnum Herbicide + 600 g a.e./ha of a dicamba product <sup>1</sup>
	2.1 - 3.1 L/ha AATREX Liquid 480 Herbicide + 1.25 – 1.75 L/ha DUAL II Magnum Herbicide
	+ 0.3 L/ha CALLISTO® 480SC Herbicide

<sup>1</sup> DO NOT APPLY TO SWEET CORN.

<sup>2</sup> This tank mix will control triazine tolerant forms of the weeds listed on the dicamba product herbicide label.

CONSULT TANKMIX PARTNER LABELS FOR COMPLETE INSTRUCTIONS AND RESTRICTIONS.

A firm, level seedbed free from large clumps and surface trash must be prepared to ensure uniform weed control.

**Do not use AATREX Liquid 480 Herbicide on loose and rough seedbeds.**

**POST-EMERGENT TANK MIXES (Silage, Field, Sweet Corn)**

<b>WEEDS CONTROLLED</b>	<b>PRODUCT RATES</b>	
Broadleaf Weeds, Wild Oats and Triazine Tolerant Weeds <sup>1</sup>	2.1 - 3.1 L/ha +	288 g a.e./ha of a dicamba product <sup>2</sup>
	2.1 - 3.1 L/ha +	1.0 L/ha Pardner®Herbicide <sup>3</sup>
Broadleaf Weeds and Triazine Tolerant Weeds <sup>4</sup>	1.0 L/ha +	1.0 - 1.2 L/ha Pardner Herbicide <sup>3</sup>
Annual Grasses and Broadleaf Weeds	2.1 - 3.1 L/ha +	1.25 – 1.75 L/ha DUAL II Magnum Herbicide
Annual Grasses, Broadleaf Weeds and Triazine Tolerant Weeds (EASTERN Canada only, Field Corn only)	2.1 - 3.1 L/ha +	1.25 – 1.75 L/ha DUAL II Magnum Herbicide
		+ 0.3 L/ha CALLISTO 480SC Herbicide <sup>5</sup>
Eastern black nightshade, redroot pigweed, velvetleaf, common ragweed (EASTERN Canada only, Field Corn only)	0.58 L/ha +	0.21 L/ha CALLISTO 480SC Herbicide <sup>6</sup>
		+ NIS at 0.2% v/v (2.0 L for each 1000 L of spray mixture)
Volunteer canola (cotyledon to 4-leaf stage) (Manitoba and Southern Alberta, Field Corn only)	0.618 L/ha +	0.156 L/ha CALLISTO 480SC Herbicide <sup>7</sup>
		+ NIS at 2.0 %v/v (2.0 L for each 1000 L of spray mixture)

<sup>1</sup> Tank mixing with a dicamba product will control triazine tolerant forms of the weeds listed on their labels.

<sup>2</sup> DO NOT APPLY TO SWEET CORN.

<sup>3</sup> WEAR CHEMICAL-RESISTANT NITRILE GLOVES WHEN MIXING/LOADING, SPRAYING AND DURING CLEAN UP AND REPAIR. SEE TANK MIX PARTNER LABEL.

<sup>4</sup> This treatment will provide control of:

- Redroot Pigweed (triazine susceptible) seedlings up to the 6-leaf stage.
- Velvetleaf seedlings up to the 6-leaf stage and less than 10 cm in height.
- Common Ragweed seedlings up to the 8-leaf stage.

<sup>5</sup> Apply on spike to 2 leaf stage of corn.

<sup>6</sup> Apply on 3 to 8 leaf stage of corn.

<sup>7</sup> Apply on 2-leaf to 6-leaf stage of corn.

CONSULT TANK MIX PARTNER LABELS FOR COMPLETE INSTRUCTIONS AND RESTRICTIONS.

**DO NOT apply by air.**

**DO NOT** apply during periods of dead calm or when winds are gusty.

**DO NOT** overspray non-target terrestrial or aquatic habitats.



When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

### 13.0 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.

#### 13.1 Sweet Corn Tank Mixture

TIMING	WEEDS CONTROLLED	RATE/HA AATREX LIQUID 480 HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER	NOTES
Pre-emergent	Annual grasses and broadleaf weeds	2.1 - 3.1 L	+ 1.25 L DUAL II Magnum Herbicide	Make only one application per year. Apply as pre-emergent treatment. Apply in 150 L water/ha minimum. Do not harvest sweet corn within 50 days of treatment. Apply by ground equipment only.

#### 13.2 Control of Bur Cucumber (*Sicyos angulatus*)

TIMING	RATE/HA AATREX LIQUID 480 HERBICIDE	RATE/HA PARDNER <sup>1</sup> HERBICIDE	NOTES
Post-emergent	3.1 L	1.0 L	Make only one application per year. Apply in 150-300 L water/ha. Corn should be treated at the 4 to 8-leaf stage. Bur cucumber seedlings in the 1 to 4-leaf stage. Apply by ground equipment only.

<sup>1</sup>Consult the Pardner Herbicide label for specific instructions regarding soil-type variations, and rotational crop, grazing or other restrictions.

#### 13.3 Field, Silage and Sweet Corn

TIMING	WEEDS CONTROLLED	RATE/HA AATREX LIQUID 480 HERBICIDE	RATE/HA PARDNER <sup>1</sup> HERBICIDE	NOTES
Post-emergent <sup>2</sup>	Volunteer adzuki bean ( <i>Vigna angularis</i> ), giant ragweed <sup>3</sup>	3.1 L	1.0 L	Make only one application per year. Apply in 200 L water/ha. Apply by ground equipment only.

<sup>1</sup> Consult the Pardner Herbicide label for precautions.

<sup>2</sup> Apply at 4 to 8 leaf stage (corn), unifoliate to fourth trifoliate leaf stage (adzuki bean), between cotyledon and 10 leaf growth stage of giant ragweed.

<sup>3</sup> Suppression only.

### 13.4 Field Corn (Eastern Canada Only)

TIMING <sup>1</sup>	WEEDS CONTROLLED	RATE/HA AATREX LIQUID 480 HERBICIDE	RATE PER HECTARE/TANK MIX PARTNER <sup>2</sup>	NOTES
Post-emergent <sup>3</sup>	Volunteer Adzuki Bean ( <i>Vigna angularis</i> ), large crabgrass ( <i>Digitaria sanguinalis</i> ) <sup>5</sup> , Giant Ragweed <sup>4</sup> , Common Cocklebur <sup>4</sup>	0.58 L	0.21 L CALLISTO 480SC Herbicide + 0.2% v/v NIS in 100-200 L water/ha	Make only one application per year. Apply by ground equipment only.  Pre-Harvest Interval is 100 days (grain/stover) and 90 days (forage).

<sup>1</sup> Apply at 3-8 leaf stage of corn.

<sup>2</sup> Consult tank mix partner label for precautions.

<sup>3</sup> Apply at the unifoliate to fourth trifoliate leaf stage of adzuki bean and when giant ragweed is at the cotyledon – 10 leaf stage and when common cocklebur is at the cotyledon – 6 leaf stage.

<sup>4</sup> Suppression only.

<sup>5</sup> Apply when large crabgrass is at the 1 – 6 leaf stage.

**13.5 Sorghum (Eastern Canada Only)**

<b>TIMING<sup>1</sup></b>	<b>WEEDS CONTROLLED</b>	<b>RATE/HA AATREX LIQUID 480 HERBICIDE</b>	<b>NOTES</b>
Pre-emergent or Post-emergent	Broadleaf weeds and wild oats	2.1 L	<p>Make only one application per year. Apply by ground equipment only. Apply in a minimum of 150 L of water/ha.</p> <p>Pre-Harvest Interval is 90 days for grain.</p> <p>Grazing Restrictions: Do not graze or feed forage from treated areas for 60 days following a pre-emergent or 45 days following a post-emergent application.</p> <p>Heavy rain immediately following application tends to cause excessive concentrations of herbicide in seed furrow, resulting in possible crop injury.</p> <p>Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soil may result in crop injury.</p> <p>Injury may occur if both this herbicide and an at-planting systemic insecticide applied in-furrow are used.</p> <p>For all soil applied applications prior to crop emergence, do not apply to coarse textured soils, i.e., sand, loamy sand, sandy, or to medium – and fine-textured soils having less than 1% organic matter, or injury may occur.</p>

**13.6 Switchgrass**

<b>TIMING</b>	<b>WEEDS CONTROLLED</b>	<b>RATE/HA AATREX LIQUID 480 HERBICIDE</b>	<b>NOTES</b>
Pre-plant incorporated or pre-emergent to crop	Wormseed mustard, wild buckwheat, wild mustard, lamb's- quarters, common purslane, redroot pigweed, ragweed, volunteer clover, smartweed, wild oats, lady's-thumb	2.1 – 3.1 L	<p>Make only one application per year.</p> <p>Apply in year of establishment only.</p> <p>Apply by ground equipment only.</p> <p>Apply in a minimum of 150 L of water/ha.</p> <p>Pre-harvest interval is 485 days.</p> <p>Do not graze treated areas. Do not use seeds for bird food.</p>

## 14.0 RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, AATREX Liquid 480 Herbicide is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to AATREX Liquid 480 Herbicide and other Group 5 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 AATREX Liquid 480 Herbicide or other Group 5 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.

Use tank mixtures with herbicides from a different group 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 integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), 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 Syngenta Canada Inc. company representatives at 1-87-SYNGENTA (1-877-964-3682) or at [www.syngenta.ca](http://www.syngenta.ca).

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