

GROUP	27	HERBICIDE
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## SYNA16003 Herbicide

AGRICULTURAL

SOLUTION

A herbicide for use in corn (field, seed, and sweet).

FOR SALE AND USE IN EASTERN CANADA ONLY

**GUARANTEE:**

Bicyclopyrone..... 200 g/L

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

**POTENTIAL SKIN SENSITIZER**

REGISTRATION NO.: 31845  
PEST CONTROL PRODUCTS ACT

NET CONTENTS: 1L to bulk

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

LABEL

## 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. The user assumes the risk to persons or property that arises from any such use of this product.

## 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.

## TOXICOLOGICAL INFORMATION

Treat symptomatically if ingested or in contact with eyes or skin.

## PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Potential skin sensitizer.

Use closed mixing and loading equipment, and wear a long-sleeved shirt and long pants, chemical-resistant gloves, socks, shoes, and eye protection. Wash the outside of the gloves before removing. Wash splashes from skin and eyes **IMMEDIATELY** with plenty of water. During application, clean-up and repair, wear coveralls over a long-sleeved shirt and long pants, socks, and shoes. In addition, wear chemical-resistant gloves during clean-up, repair, or if contact with spray nozzles is necessary. After spraying, wash hands and shower thoroughly with soap and water. 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. Keep product away from food, drink and animal feed. Store product in original container, tightly closed and in a safe place.

**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 the treated area until 15 days after an application for hand setting irrigation equipment. For all other tasks, DO NOT enter or allow worker entry into the treated area until 12 hours after application.**

Consult the labels of the tank-mix partners and observe the most restrictive precautions (including personal protective equipment) indicated on the labels of the products in the tank mixture.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at [www.croplife.ca](http://www.croplife.ca).

## **ENVIRONMENTAL HAZARDS**

Toxic to aquatic organisms and to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of Syna 16003 Herbicide in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 strip between the treated area and the edge of the water body.

DO NOT apply by air.

## **STORAGE CONDITIONS**

Always store product in original container with top closed in a cool, dry place. To prevent contamination store this product away from food or feed. . SYNA16003 Herbicide should not be stored below -8 °C. If frozen, allow to thaw and agitate thoroughly to obtain a translucent, pale amber solution prior to use.

## **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.

**CONTAINER DISPOSAL:**

**FOR DISPOSAL OF PLASTIC JUGS:**

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

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PAMPHLET

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## PRECAUTIONS

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Potential skin sensitizer.

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exposed skin with soap and water thoroughly before eating, drinking, smoking, applying cosmetics or using the toilet. Keep product away from food, drink and animal feed. Store product in original container, tightly closed and in a safe place.

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DO NOT enter or allow worker entry into the treated area until 15 days after an application for hand setting irrigation equipment. For all other tasks, DO NOT enter or allow worker entry into the treated area until 12 hours after application..

Consult the labels of the tank-mix partners and observe the most restrictive precautions (including personal protective equipment) indicated on the labels of the products in the tank mixture.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at [www.croplife.ca](http://www.croplife.ca).

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## **DISPOSAL**

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#### **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)***

## **GENERAL INFORMATION**

SYNA16003 Herbicide is a soluble concentrate herbicide that provides residual control of select annual broadleaf weeds in corn. SYNA16003 Herbicide has a high level of crop safety to allow for flexibility in application timing in corn up to the 6-leaf stage. SYNA16003 Herbicide may be applied either pre-emergence or post-emergence to corn.

SYNA16003 Herbicide may be tank mixed with other herbicides as part of a broad-spectrum weed control program in corn.

## **ENVIRONMENTAL HAZARDS**

Toxic to aquatic organisms and to non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.

This product demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of Syna 16003 Herbicide in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 strip between the treated area and the edge of the water body.

DO NOT apply by air.

**DIRECTIONS FOR USE****PRE-EMERGENT APPLICATION FOR EARLY SEASON WEED CONTROL****CORN (including field, seed and sweet) – Pre-emergent Application**

<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	Short season control of velvetleaf, Eastern black nightshade and early season suppression of proso millet	Apply prior to weed emergence. Do not mix with ammonium sulphate (AMS). Ground application only. DO NOT apply by air. Apply in a minimum of 100 L of carrier (water or UAN) per hectare.
250	Short season control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of these weeds and early season suppression of proso millet	One application per year. Do not exceed 50 g bicyclopyrone/ha per year.  This application will provide control or suppression only through the critical crop establishment phase and is to be used in a planned weed management program with a post-emergent herbicide treatment. Monitor the species and growth stages of escapes in order to better select a post-emergent application.

<b>CORN (Field corn only) – Pre-emergent tank mix with PRIMEXTRA® II MAGNUM®</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>PRIMEXTRA II MAGNUM (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	2500	Short season control of velvetleaf and Eastern black nightshade and early season suppression of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed, ragweed, redroot pigweed, lambsquarters and proso millet	Apply prior to velvetleaf and proso millet emergence. For all other weeds, apply before weeds exceed the 2-lf stage. Do not mix with AMS. Apply in a minimum of 100 L of carrier per hectare. DO NOT apply by air. One application per year. This application will provide control or suppression only through the critical crop establishment phase and is to be used in a planned weed management program with a post-emergent herbicide treatment. Monitor the species and growth stages of escapes in order to better select a post-emergent application. Consult the label for PRIMEXTRA II MAGNUM for specific instructions regarding rotational crops, use rates under various conditions and other restrictions.
250	2500	Short season control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of the above weeds, and early season suppression of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed and proso millet.	

<b>CORN (Field corn only) – Pre-emergent tank mix with PRIMEXTRA II MAGNUM</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>PRIMEXTRA II MAGNUM (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	3000-4000	Control of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed, Eastern black nightshade, common ragweed, redroot pigweed and lambsquarters and short season control of velvetleaf and early season suppression of proso millet	Apply prior to velvetleaf and proso millet emergence. For all other weeds, apply before weeds exceed the 2-lf stage. Do not mix with AMS. Apply in a minimum of 100 L of carrier per hectare. DO NOT apply by air. One application per year. Use the higher rate of PRIMEXTRA II MAGNUM for heavy weed infestations. Consult the label for PRIMEXTRA II MAGNUM for specific instructions regarding rotational crops, use rates under various conditions and other restrictions.
250	3000-4000	Control of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed, Eastern black nightshade, common ragweed, redroot pigweed and lambsquarters and short season control of velvetleaf and triazine and Group 2 tolerant biotypes of labelled weeds and early season suppression of proso millet	

<b>CORN (Field corn only) – Pre-emergent tank mix with LUMAX® EZ Herbicide</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>LUMAX EZ (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	3350	Short season control of velvetleaf and Eastern black nightshade and early season suppression of American nightshade, common ragweed, lady's thumb, lambsquarters, redroot pigweed, wild buckwheat, wild mustard, barnyard grass, crabgrass (smooth, hairy), fall panicum, foxtail (green, yellow, giant), witchgrass and proso millet.	Apply prior to proso millet emergence and before other grass weeds exceed the 2-lf stage. Do not mix with AMS. Apply in a minimum of 100 L of carrier per hectare. DO NOT apply by air. One application per year. This application will provide control or suppression only through the critical crop establishment phase and is to be used in a planned weed management program with a post-emergent herbicide treatment.
250	3350	Short season control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of these weeds, and early season suppression of American nightshade, lady's thumb, wild buckwheat, wild mustard, barnyard grass, crabgrass (smooth, hairy), fall panicum, foxtail (green, yellow, giant), witchgrass and proso millet.	Monitor the species and growth stages of escapes in order to better select a post-emergent application. Consult the label for LUMAX EZ Herbicide for specific instructions regarding rotational crops, use rates under various conditions and other restrictions.

<b>CORN (including field, seed and sweet) – Pre-emergent tank mix with LUMAX EZ Herbicide</b>			
<b>RATE OF SYNA16003 HERBICIDE (mL/ha)</b>	<b>RATE OF LUMAX EZ (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188 – 250	4700	Control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of the above broadleaf weeds, American nightshade, lady's thumb, wild buckwheat, wild mustard, barnyard grass, crabgrass (smooth, hairy), fall panicum, foxtail (green, yellow, giant) and witchgrass and early season suppression of proso millet	Apply prior to proso millet emergence and before other grass weeds exceed the 2-leaf stage. Do not mix with AMS. Water volume: Apply in a minimum of 100 L of carrier per hectare. DO NOT apply by air. One application per year. Consult the label for LUMAX EZ Herbicide for specific instructions regarding rotational crops, use rates under various conditions and other restrictions.

**POST-EMERGENT APPLICATIONS**

<b>CORN (Field corn only) – Post-emergent up to and including 6-leaf corn</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>	
188	Short season control of velvetleaf, Eastern black nightshade and early season suppression of proso millet	Do not mix with AMS. Apply in a minimum of 100 L of water per hectare. One application per year. DO NOT apply by air. This application will provide short season residual control or early season suppression of labelled weeds. It will not control emerged weeds.	
250	Short season control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of these weeds and early season suppression of proso millet		

<b>CORN (Field corn only) – Post-emergent tank mix with PRIMEXTRA II MAGNUM from spike to 6-leaf corn</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>PRIMEXTRA II MAGNUM (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	3000-4000	Control of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed, Eastern black nightshade, common ragweed, redroot pigweed and lambsquarters and short season control of velvetleaf and early season suppression of proso millet.	Do not mix with AMS. Water volume: Apply in a minimum of 100 L of water per hectare. One application per year. Apply when corn is in the spike to 6-leaf stage and before weeds pass the 2-leaf stage, except for velvetleaf and proso millet - apply prior to emergence. Some burn of the corn may occur, but yield will not be affected. <b>DO NOT</b> tank-mix with fluid fertilizers, oils, oil concentrations or surfactants. Use the higher rate of
250	3000-4000	Control of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed, Eastern black nightshade, common ragweed, redroot pigweed and lambsquarters and short season control of velvetleaf and triazine and Group 2 tolerant biotypes of labelled weeds and early suppression of proso millet.	PRIMEXTRA II MAGNUM for heavy weed infestations. Consult the label for PRIMEXTRA II MAGNUM for specific instructions regarding rotational crops, use rates under various conditions and other restrictions.

<b>CORN (Field corn only) – Post-emergent tank mix with LUMAX EZ up to and including 2-leaf corn</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>LUMAX EZ (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188 - 250	4700	Control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade, American nightshade, lady's thumb, wild buckwheat, wild mustard, barnyard grass, crabgrass (smooth, hairy), fall panicum, foxtail (green, yellow, giant) and witchgrass and triazine and Group 2 tolerant biotypes of these broadleaf weeds and early season suppression of proso millet.	Apply prior to proso millet emergence and before grass weeds exceed the 2-If stage. Do not mix with AMS. Apply in a minimum of 100 L of water per hectare.  One application per year. Consult the label for LUMAX EZ label for specific instructions regarding rotational crops, use rates under various conditions and other restrictions.

<b>CORN (Glyphosate-tolerant field corn ONLY) – Post-emergent tank mix with TOUCHDOWN TOTAL<sup>®</sup> up to and including 6-leaf corn</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>TOUCHDOWN TOTAL (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	1800 mL TOUCHDOWN TOTAL or the equivalent of 900 g a.e. glyphosate/ha	Burn down of emerged annual and perennial weeds and residual short season control of velvetleaf and Eastern black nightshade and early season suppression of proso millet.	Do not mix with AMS. Apply in a minimum of 150 L of water per hectare. AGRAL <sup>®</sup> 90 or equivalent is required at 0.2% v/v.  One application per year. This application will provide short season residual control or early season suppression of labelled weeds.
250	1800 mL TOUCHDOWN TOTAL or the equivalent of 900 g a.e. glyphosate/ha	Burn down of emerged annual and perennial weeds and residual short season control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of these weeds and early season	Refer to the label of the tank-mix partner for specific instructions and restrictions.

		suppression of proso millet.	
<b>CORN (Glyphosate-tolerant field corn ONLY) – Post-emergent tank mix with TOUCHDOWN TOTAL and PRIMEXTRA II MAGNUM up to and including 6-leaf corn</b>			
<b>SYNA16003 HERBICIDE (mL/ha)</b>	<b>TANK MIX PARTNERS (mL/ha)</b>	<b>WEEDS</b>	<b>NOTES</b>
188	1800 mL/ha TOUCHDOWN TOTAL or the equivalent of 900 g a.e. glyphosate/ha + 2500 mL/ha PRIMEXTRA II MAGNUM	Burn down of emerged annual and perennial weeds, short season residual control of velvetleaf and Eastern black nightshade and early season suppression of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed, ragweed, redroot pigweed, lambsquarters and proso millet.	Do not mix with AMS. Apply in a minimum of 150 L of water per hectare. One application per year. Refer to the label of the tank-mix partner for specific instructions and restrictions.
250	1800 mL/ha TOUCHDOWN TOTAL or the equivalent of 900 g a.e. glyphosate/ha + 2500 mL/ha PRIMEXTRA II MAGNUM	Burn down of emerged annual and perennial weeds and short season residual control of common ragweed, redroot pigweed, lambsquarters, velvetleaf, Eastern black nightshade and triazine and Group 2 tolerant biotypes of these weeds, and early season suppression of crabgrass (smooth and hairy), barnyard grass, foxtail (green, yellow, giant) witch grass, fall panicum, American nightshade, lady's-thumb, wild mustard, purslane, prostrate pigweed, buckwheat, smart weed and proso millet	

**PRE-HARVEST INTERVALS:**

<b>Crops</b>	<b>PHI (days)</b>
Field corn forage	45
Sweet corn	45
Field corn grain and stover	Harvest at maturity

## USE PRECAUTIONS:

SYNA16003 Herbicide may be used pre-emergent on field corn, production seed corn and sweet corn. Post-emergent applications may be made on field corn only. Not all seed corn inbreds and sweet corn varieties have been tested; the use of SYNA16003 Herbicide must be approved by the seed company and comply with the directions given by the seed corn company.

Although SYNA16003 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 SYNA16003 Herbicide (refer to "RECROPPING GUIDELINES").

Dry conditions following application may reduce the pre-emergent activity of SYNA16003 Herbicide. If an activating rain (12 mm) is not received within 7-10 days after a preemergent application, rotary hoeing is suggested to activate the herbicide.

Syngenta will not recommend soybeans be planted the year following application of SYNA16003 Herbicide on soils with a sand or loamy sand soil textural classification. For all other soil textural classifications, however, Syngenta will fully endorse soybeans planted the year following (11 months) application of SYNA16003 Herbicide. Refer to "Recropping Guidelines" section for more information.

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

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 can quickly outgrow these effects and continue 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 SYNA16003 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.

Severe corn injury and crop yield loss may occur if SYNA16003 Herbicide is applied to corn crops that are treated with Lorsban™.

SYNA16003 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 SYNA16003 Herbicide application as weed control may be reduced.

Make only one application of SYNA16003 Herbicide per year.

DO NOT apply with suspension fertilizers as carriers.

DO NOT apply through any type of irrigation system.

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.

### **MIXING AND SPRAYING INSTRUCTIONS:**

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

**DO NOT** apply by air.

Avoid application of this product when winds are gusty

### **Buffer zones:**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The 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).

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:
		Terrestrial habitat
Field sprayer	Corn	3

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) 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.

The buffer zones for this product can be modified based on weather conditions and spray

equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

### **APPLICATION IN LIQUID FERTILIZERS:**

Nitrogen solutions (such as 28-0-0 UAN), excluding suspension fertilizers, may replace water as a carrier for pre-emergence applications of SYNA16003 Herbicide in corn. Do not use nitrogen solutions as a carrier to corn that has emerged. Always predetermine the compatibility of SYNA16003 Herbicide tank mixes with your liquid fertilizer carrier by mixing small proportional quantities in advance. Even if SYNA16003 Herbicide is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

#### **Mixing Procedure:**

1. Ensure that the sprayer is totally clean.
2. Fill the sprayer half full with carrier. 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 SYNA16003 and PRIMEXTRA II MAGNUM or LUMAX EZ (if an applicable tank-mix) 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 TOUCHDOWN TOTAL or other glyphosate-containing tank-mix if required. Refer to the label of the tank mix partner and the surfactant for the specific mixing instructions.
7. Add the non-ionic surfactant if applicable (e.g., AGRAL 90) at 0.2% v/v.
8. Continue agitation while completing the filling of the sprayer with water.
9. Always ensure that agitation is maintained until spraying is completed, even if stopped for brief periods of time.
10. If agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying. **SYNA16003 Herbicide must be sprayed the same day as mixing.**
11. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

### **RECRIPPING GUIDELINES:**

Certain crops have been shown to be sensitive to low residues of SYNA16003 Herbicide in the soil. The minimum recropping interval is the time between the last application of SYNA16003 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 SYNA16003 Herbicide, the following recropping intervals should be observed.

<b>CROP</b>	<b>MINIMAL RECRIPPING INTERVAL</b>
Winter wheat	4 months
Spring wheat, spring barley, field corn (grain or silage), seed corn and sweet corn	10 months
Soybeans (except on sand or loamy sand-soil types)*	11 months

All Other Crops	Bioassay (after 12 months)
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\* Syngenta will not recommend soybeans be planted the year following application of SYNA16003 Herbicide on soils with a sand or loamy sand soil textural classification. For all other soil textural classifications, however, Syngenta will fully endorse soybeans planted the year following (11 months) application of SYNA16003 Herbicide.

Observe the recropping guidelines of any product(s) to be tank mixed with SYNA16003 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 SYNA16003 Herbicide. An application of SYNA16003 Herbicide must NOT be made to the salvage crop.

Land treated with SYNA16003 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 SYNA16003 Herbicide to plant the test crop(s).

## 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 SYNA16003 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. Thoroughly rinse the tank, hoses, booms, nozzles and screens with clean water for a minimum of 5 minutes to remove all traces of detergent.
3. Dispose of all rinsate in accordance with provincial regulations.

### **RESISTANCE-MANAGEMENT RECOMMENDATIONS**

For resistance management, SYNA16003 Herbicide is a Group 27 herbicide. Any weed population may contain or develop plants naturally resistant to SYNA16003 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 SYNA16003 Herbicide or other Group 27 herbicides 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.

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, biological and other chemical control practices.

Monitor treated weed populations for resistance development.

Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.

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](http://www.syngenta.ca).

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