

GROUP	9	HERBICIDE
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CYCLE[®] Herbicide
SOLUTION

AGRICULTURAL

For Control of Annual and Perennial Grasses and Broadleaf Weeds

GUARANTEE:

Glyphosate (present as potassium salt)..... 500 g/L

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

CAUTION: EYE AND SKIN IRRITANT

REGISTRATION NO.: **28802**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **10L - Bulk**

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

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

IF POISONING IS SUSPECTED, call 1-800-327-8633 (FASTMED), or contact a physician or 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 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.

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.

TOXICOLOGICAL INFORMATION

There is no specific antidote if this product is ingested. Treat symptomatically if ingested or in contact with eyes or skin.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

DO NOT ingest. DO NOT get on skin, clothing or in eyes. Contact with eyes may be painful.

1. When handling the concentrate:

- * Wear a long sleeved shirt and long pants, chemical resistant gloves and eye protection.
- * Wash splashes from skin and eyes immediately with plenty of water.

2. When spraying:

- * Wear a long sleeved shirt and long pants.
- * Avoid working in spray mist.
- * Avoid all drift or contact with other vegetation. See ENVIRONMENTAL HAZARDS

3. After spraying:

- * Wash hands and shower thoroughly.

4. As with all agrochemical products:

- * When using, do not eat, drink or smoke.
- * Wash hands and exposed skin with soap and water thoroughly before eating, drinking or smoking.
- * Wash out container thoroughly, empty washings into spray tank and dispose of safely. See DECONTAMINATION AND DISPOSAL section.
- * Keep away from food, drink and animal feeding stuffs.
- * Do not contaminate ponds, waterways or ditches with chemical. See ENVIRONMENTAL HAZARDS.
- * Store in original container, tightly closed, in a safe place.

Apply only 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, application equipment and sprayer settings.

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.

ENVIRONMENTAL HAZARDS

HARMFUL to aquatic organisms. Avoid direct application to any body of water populated with fish or used for domestic purposes. Do not use in areas where adverse impact on domestic water or aquatic species is likely. Do not contaminate water by disposal of waste or cleaning of equipment. Avoid all drift to or contact with other vegetation for which treatment is not intended as damage or destruction may occur. Do not apply using aerial spray equipment.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of CYCLE Herbicide should be mixed, stored and applied only in stainless steel, aluminium, fibreglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY CYCLE HERBICIDE OR SPRAY SOLUTIONS OF CYCLE HERBICIDE IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. CYCLE Herbicide or spray solutions of CYCLE Herbicide react with such containers and tanks to produce hydrogen gas, which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

STORAGE

- Always store in original container with top closed.
- Avoid contamination of seed, feed and foodstuffs.
- Product is not affected by freezing.

SPILL CLEANUP

Observe safety and protective measures as noted under PRECAUTIONS.

Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgite, bentonite or other absorbent clays (kitty litter, etc.) Collect contaminated absorbent, place in **plastic-lined metal drum** and dispose of in accordance with instructions provided under DISPOSAL. Thoroughly scrub floor or other impervious surfaces with a strong industrial type detergent solution and rinse with water.

Liquid spills that soak into the ground should be dug-up, placed in **plastic-lined metal drums** and disposed of in accordance with instructions provided under DISPOSAL.

Leaking containers should be separated from non-leakers and either the container or its contents transferred to a **plastic-lined metal drum** or other non-leaking container and disposed of by use according to label directions or in accordance with instructions provided under DISPOSAL. Any recovered spilled liquid should be similarly collected and disposed of according to the DECONTAMINATION AND DISPOSAL section.

DECONTAMINATION AND 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 OR REFILLING:

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
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PRODUCT INFORMATION

Do not apply this product using aerial equipment.

CYCLE Herbicide is a water-soluble herbicide for **non-selective** weed control:

In cropping systems - before planting of all crops, pre-harvest application in wheat, barley, oats, canola (including glyphosate tolerant canola), peas, lentils, flax (including low linolenic acid varieties), soybeans (including glyphosate tolerant soybeans), dry beans, forages and post harvest stubble treatment;

Post emergent application in glyphosate tolerant soybean crops;

In pasture renovation;

In forage, legume and grass establishment;

In minimum and zero tillage systems.

CYCLE Herbicide is to be applied as a foliage spray for the control of most herbaceous plants. It may be applied through most standard industrial or field type sprayers after dilution and thorough mixing with water in accordance with the booklet instructions.

CYCLE Herbicide moves through the plant from the point of foliage contact into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial weeds may not occur until 7 to 10 days. Extremely cool or cloudy weather at treatment time may slow down activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant, which advances to complete browning of above ground growth and deterioration of underground plant parts.

This product does not provide residual weed control. For subsequent residual weed control, apply a registered residual herbicide. Read and carefully observe cautionary statements and all other information appearing on the labels of all herbicides used.

DIRECTIONS FOR USE

GENERAL USE PRECAUTIONS

Reduced results may occur if water-containing soil is used, such as water from ponds and ditches. Poor control may also occur when treating weeds heavily covered with dust.

Avoid contact with desirable vegetation by direct application or spray drift as destruction may result.

Avoid drift or overspray to non-target vegetation and wildlife habitats.

Do not use in greenhouses.

Mix only the amount of solution to be used during a one-day period, as reduced activity may result from use of leftover solution.

Drain and clean application equipment immediately after using this product.

Do not contaminate water sources by disposal of waste or cleaning of equipment.

This product is highly toxic to aquatic and terrestrial plants. Overspray or drift to sensitive habitats should be avoided. A buffer zone of 15 metres is required between the downwind point of direct application and the closest edge of sensitive terrestrial habitats including forested areas, shelterbelts, woodlots, hedgerows, pastures, rangelands and shrublands. A buffer zone of 15 metres is required between the downwind point of direct application and the closest edge of sensitive aquatic habitats including sloughs, coulees, ponds, Prairie potholes, lakes, rivers, streams, reservoirs and wetlands and wildlife habitat at the edge of these bodies of water. Do not contaminate these habitats when cleaning and rinsing spray equipment or containers.

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

GENERAL USE INFORMATION

Weeds Controlled

This product controls many annual and perennial grasses and broadleaf weeds when applied as recommended and under conditions described. For information on how to control specific weeds including herbicide rate refer to the "Annual Weed Control" and "Perennial Weed Control" sections of this label. The following is a partial list of weeds controlled:

ANNUAL WEEDS

Annual Grasses

Barnyard Grass
Bluegrass (annual)
Crabgrass (large, smooth)
Downy Brome
Fall Panicum
Giant Foxtail
Green Foxtail
Persian Darnel
Rye, tame
Volunteer Barley
Volunteer Corn
Wild Oats
Proso Millet
Volunteer Wheat
Yellow Foxtail

PERENNIAL WEEDS

Perennial Grasses/Sedges

Blue Grass (Canada)
Blue Grass (Kentucky)
Bromegrass (smooth)
Cattail (common)
Foxtail Barley
Orchard Grass
Quack Grass
Redtop
Wirestem mulhy
Yellow Nutsedge

Annual Broadleaf Weeds

Chickweed, common
 Cleavers
 Cocklebur
 Corn Spurry
 Cow Cockle
 Dodder
 Fleabane (Canada)
 Flixweed
 Green Smartweed
 Hairy Galinsoga
 Hemp nettle
 Kochia
 Lady's-Thumb
 Lamb's-Quarters
 Low Cudweed
 Narrow-Leaved Hawk's-Beard
 Narrow-Leaved Vetch
 Nightshade, black
 Night-Flowering Catchfly
 Non-glyphosate tolerant volunteer canola
 Pennsylvania Smartweed
 Prickly Lettuce
 Prostrate Knotweed
 Ragweed (common)
 Redroot Pigweed
 Round-Leaved Mallow
 Russian Thistle
 Shepherd's-Purse
 Smooth Pigweed
 Sowthistle (annual)
 Stinkweed
 Stork's Bill
 Velvetleaf
 Volunteer Flax
 Wild Buckwheat
 Wild Mustard
 Wild Tomato

Perennial Broadleaved Weeds

Alfalfa
 Chickweed, mouse-eared
 Clover, white
 Colt's-Foot
 Cottontop
 Curled Dock
 Dandelion, common
 Field Bindweed
 Goldenrod, Canada
 Hemp Dogbane
 Hoary Cress
 Horsetail
 Jerusalem Artichoke
 Knotweed (Japanese)
 Milkweed (common)
 Plantain, broad-leaved
 Poison Ivy
 Purple Loosestrife
 Sheep Sorrel
 Smooth Bedstraw
 Sowthistle (perennial)
 Stitchwort, grass-leaved
 Thistle (Canada)
 Yellow Toadflax
 Wild Carrot
 Wild Grape
 Wormwood (Absinth)

AGRICULTURAL USES

The following are use situations for CYCLE Herbicide. Information on the equipment selected to apply CYCLE Herbicide can be found in the APPLICATION EQUIPMENT section. Use rates can then be selected from the CYCLE Herbicide USE RATES section.

The type of vegetation present and the use situation will dictate the choice of application equipment.

ALWAYS REFER TO THE PRODUCT LABEL(S) FOR THE TANK MIX PARTNER(S) FOR FURTHER INFORMATION ON WEEDS CONTROLLED, DIRECTIONS FOR USE, RESTRICTIONS, ROTATIONAL CROP INFORMATION AND PRECAUTIONARY LABEL STATEMENTS. WHEN APPLIED AS A TANK MIX, THE HIGHEST INDICATED BUFFER ZONE

FOR THE TANK MIX PARTNER MUST BE MAINTAINED AROUND NON-TARGET AREAS.

PRIOR TO PLANTING (ALL CROPS): This product may be applied prior to planting all crops for control of emerged weeds listed on this label. Apply **before** seeding or transplanting crops.

FORAGE LEGUMES & GRASSES

To control emerged vegetation prior to emergence of legumes and grasses. If legumes and grasses are to be under-seeded with a cover crop, CYCLE Herbicide must be applied prior to planting any cover crop.

PASTURE RENOVATION

To control or suppress existing vegetation for zero-tillage seeding of legumes into established sod for renovation. Vegetation should be at least 20 cm in height with maximum number of seedlings and shoots emerged. Apply before or after seeding but before crop emerges.

MINIMUM AND ZERO TILLAGE SYSTEMS (ALL FIELD CROPS INCLUDING CEREALS, OILSEEDS, PULSES, FORAGES, SOYBEAN AND CORN)

Apply prior to or after seeding but before crop emerges for control of emerged weeds.

DO NOT APPLY AFTER CROP EMERGENCE.

Since CYCLE Herbicide alone does not provide residual weed control, application too far in advance of seeding will allow weeds to emerge between application and crop emergence.

Minimum and Zero Tillage Tank Mixtures:

ALWAYS REFER TO THE PRODUCT LABEL(S) FOR THE TANK MIX PARTNER(S) FOR FURTHER INFORMATION ON WEEDS CONTROLLED, DIRECTIONS FOR USE, RESTRICTIONS, ROTATIONAL CROP INFORMATION AND PRECAUTIONARY LABEL STATEMENTS. WHEN APPLIED AS A TANK MIX, THE HIGHEST INDICATED BUFFER ZONE FOR THE TANK MIX PARTNER MUST BE MAINTAINED AROUND NON-TARGET AREAS.

The following tank mixtures may be applied **prior to crop emergence** to provide burndown and residual control of selected annual weeds.

Soybeans:

CYCLE Herbicide plus PURSUIT[†]

CYCLE Herbicide plus PURSUIT can be applied prior to or after seeding, but before crop emergence. CYCLE Herbicide will control emerged weeds listed on this label when applied as directed (refer to annual and perennial weed control sections in the CYCLE Herbicide product label). PURSUIT will control weeds germinating from seed.

CYCLE Herbicide plus Metribuzin (SENCOR[‡] 75DF, SENCOR 500F, SENCOR 480F, SENCOR SOYBEAN or LEXONE[‡] DF)

For burndown and residual control of selected annual weeds in soybeans, apply CYCLE Herbicide in tank mix with SENCOR 75DF, SENCOR 500F, SENCOR 480F, SENCOR SOYBEAN or LEXONE DF as a preplant surface or pre-emergence application before crop emergence.

Perennial weeds such as quack grass may not be controlled with lower rates of CYCLE Herbicide. Use higher rates of CYCLE Herbicide if perennial weeds are present.

CYCLE Herbicide plus DUAL[®] MAGNUM[®] or DUAL II MAGNUM

For burndown and residual control of selected annual weeds in soybeans.

Apply CYCLE Herbicide in tank mix with DUAL MAGNUM or DUAL II MAGNUM at 1.15– 1.75 L/ha as a preplant surface (up to 30 days before planting) or pre-emergence application before crop emergence.

CYCLE Herbicide plus DUAL MAGNUM or DUALII MAGNUM plus Metribuzin (SENCOR 75DF, SENCOR 500F, SENCOR 480F, SENCOR SOYBEAN or LEXONE DF)

For burndown and residual control of selected annual weeds in soybeans. Apply as a preplant surface (up to 30 days before planting) or pre-emergence application before crop emergence.

Perennial weeds such as quack grass may not be controlled with lower rates of CYCLE Herbicide. Use higher rates of CYCLE Herbicide if perennial weeds are present.

CYCLE Herbicide plus BROADSTRIKE DUAL MAGNUM[†]

BROADSTRIKE DUAL MAGNUM at 1.56 L/ha may be tank mixed with CYCLE Herbicide at 1.8 L/ha for control of existing annual weeds and certain perennial weeds including quack grass. This tank mix may be applied preplant surface or pre-emergence in minimum till or zero till conditions. When mixing, add the BROADSTRIKE DUAL MAGNUM component first.

CYCLE Herbicide plus FRONTIER[†]

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus FRONTIER preplant surface or pre-emergence.

CYCLE Herbicide plus Linuron[†]

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus Linuron after seeding but before crop emergence.

Corn:

CYCLE Herbicide plus DUAL MAGNUM or DUAL II MAGNUM

For burndown and residual control of selected annual weeds in corn.

Apply CYCLE Herbicide in tank mix with DUAL MAGNUM or DUAL II MAGNUM at 1.25 to 1.75 L/ha as a preplant surface (up to 30 days before planting) or pre-emergence application before crop emergence.

NOTE: The use on corn is for EASTERN CANADA ONLY.

CYCLE Herbicide plus DUAL MAGNUM or DUAL II MAGNUM plus AATREX[®] NINE-O[®] or AATREX LIQUID 480[®]

For burndown and residual control of selected annual weeds in corn.

Apply CYCLE Herbicide in tank mix with DUAL MAGNUM or DUAL II MAGNUM at 1.25 – 1.75 L/ha plus AATREX NINE-O at 1.1 - 1.7 kg/ ha or AATREX LIQUID 480 at 2.1 - 3.1 L/ha as a preplant surface (up to 30 days before planting) or pre-emergence application before crop emergence.

NOTE: The use on corn is for EASTERN CANADA ONLY.

Perennial weeds such as quack grass may not be controlled with lower rates of CYCLE Herbicide. Use higher rates of CYCLE Herbicide if perennial weeds are present.

CYCLE Herbicide plus PRIMEXTRA® II MAGNUM

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus PRIMEXTRA II MAGNUM preplant surface or pre-emergence before crop emergence on corn. This tank mixture requires the use of a surfactant, either Agral 90 or Ag-Surf. See mixing instructions for more information.

Perennial weeds such as quack grass may not be controlled with lower rates of CYCLE Herbicide. Use higher rates of CYCLE Herbicide if perennial weeds are present.

CYCLE Herbicide plus FIELDSTAR†

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus FIELDSTAR preplant surface or pre-emergence before crop emergence.

CYCLE Herbicide plus FRONTIER

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus FRONTIER preplant surface or pre-emergence before crop emergence.

CYCLE Herbicide plus PROWL†

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus PROWL after seeding but before crop emergence.

CYCLE Herbicide plus Linuron

For burndown and residual control of selected annual weeds, apply CYCLE Herbicide plus Linuron after seeding but before crop emergence.

WEED CONTROL IN GLYPHOSATE TOLERANT SOYBEANS

WARNING: APPLY CYCLE HERBICIDE ON GLYPHOSATE TOLERANT SOYBEAN VARIETIES ONLY

NOTE: ALWAYS USE PEDIGREED (I.E. CERTIFIED) GLYPHOSATE TOLERANT SOYBEAN SEED. SOYBEANS WHICH ARE NOT DESIGNATED AS GLYPHOSATE TOLERANT WILL BE DAMAGED OR DESTROYED BY THIS TREATMENT.

Make pre-harvest applications at least 7 days before harvest with no more than 1.8 L/ha.

DO NOT APPLY BY AIRCRAFT.

GLYPHOSATE TOLERANT SOYBEAN USE DIRECTIONS:			
Rate (L/ha)	Growth Stage of Soybean Crop	Weeds Controlled*	Comments (use 100 – 200 L/ha water volumes)
1.8	First trifoliolate leaf stage through to flowering	Velvetleaf, common ragweed, lamb's-quarters, redroot pigweed, smooth pigweed, cocklebur, green smartweed, lady's-thumb, Pennsylvania smartweed, eastern black nightshade, wild mustard, wild buckwheat, foxtail (green, yellow, giant), barnyard grass, crabgrass (smooth, large), quack grass, milkweed*, yellow nutsedge*, fall panicum, proso millet	<p>A second 1.8 L/ha application may be used for late weed flushes emerging after the initial treatment.</p> <p>This second application must be made no later than the flowering stage of the soybean.</p> <p>* Suppression only</p>
1.8 – 3.6	First trifoliolate leaf stage through to flowering	Perennial sowthistle, Canada thistle, wire-stem muhly	<p>A single application at the higher rate or a second (sequential) application of 1.8 L/ha will improve control in heavy weed infestations.</p> <p>If sequential applications of 1.8 L/ha are used, they should be at least 2 weeks apart for best results on perennial weeds.</p> <p>This second application must be made no later than the flowering stage of the soybean.</p> <p>Perennial sowthistle should be in the rosette stage to 50 cm in height and actively growing.</p> <p>Wirestem muhly should be 10-20 cm in height and actively growing.</p> <p>Plants not fully emerged at the time of application will escape treatment.</p>
3.6	First trifoliolate leaf stage through to flowering	All weeds listed above, plus milkweed**, yellow nutsedge**, and field bindweed**	<p>Only one application per season at 3.6 L/ha.</p> <p>** Will also be controlled by sequential applications of 1.8L/ha. Applications should be at least two weeks apart for optimum control.</p> <p>This second application must be made no later than the flowering stage of the soybean. Milkweed should be 15 – 60 cm in height and actively growing; yellow nutsedge should be 5 – 15 cm in height and actively growing. Plants not fully emerged at the time of treatment will not be controlled.</p>

*Weeds will be more easily controlled and early competition avoided with applications made when weeds are

small. Control of annual weeds greater than 25 cm in height will be inconsistent, although some weeds may be controlled.

CYCLE Herbicide plus PURSUIT

CYCLE Herbicide can be tank mixed with PURSUIT herbicide for added residual control of late germinating eastern black nightshade, lamb's quarters, redroot pigweed, velvetleaf, fall panicum and proso millet.

Apply PURSUIT Herbicide at 0.16 to 0.21 litres per hectare and CYCLE Herbicide at a rate of 1.8 litres per hectare up to and including the 3rd trifoliolate leaf stage of the glyphosate tolerant soybeans in 100-200 litres per hectare of clean water. The higher rate is recommended for heavier infestations. This tank mix is recommended primarily for soybean systems with row spacings of 50 centimetres (20 inches) or more where a single application timing is desired.

Mixing: Add and mix PURSUIT as per instructions on the PURSUIT label and then add CYCLE Herbicide as per instructions on this label.

A PHI of 100 days is required for the tank mix of CYCLE Herbicide and PURSUIT Herbicide on glyphosate tolerant soybeans. Only one application per season of CYCLE Herbicide at 1.8 litres per hectare tank mixed with PURSUIT Herbicide at 0.16 to 0.21 litres per hectare is permitted. For more information on weeds controlled and rates, follow the label directions for CYCLE Herbicide and PURSUIT.

WEED CONTROL IN GLYPHOSATE TOLERANT CORN

WARNING: APPLY CYCLE HERBICIDE ON GLYPHOSATE TOLERANT CORN VARIETIES ONLY

NOTE: ALWAYS USE PEDIGREED (I.E. CERTIFIED) GLYPHOSATE TOLERANT CORN SEED. CORN WHICH ARE NOT DESIGNATED AS GLYPHOSATE TOLERANT WILL BE DAMAGED OR DESTROYED BY THIS TREATMENT.

DO NOT APPLY BY AIRCRAFT.

GLYPHOSATE TOLERANT CORN USE DIRECTIONS:			
Rate (L/ha)	Growth Stage of Corn Crop	Weeds Controlled ¹	Comments (use 100 – 200 L/ha water volumes)
1.8	Up to and including 8 leaf stage	<p><u>Annual Grasses</u> Wild oats, foxtail (green, yellow, giant), barnyard grass, crabgrass (smooth, large), fall panicum, wild proso millet, volunteer barley, volunteer wheat</p> <p><u>Annual Broadleaves</u> Velvetleaf, common ragweed, common lamb's-quarters, redroot pigweed, smooth pigweed, cocklebur, green smartweed, lady's-thumb, Pennsylvania smartweed, eastern black nightshade, wild mustard, wild buckwheat, stinkweed, Russian thistle, non-glyphosate tolerant canola, hemp-nettle, kochia, chickweed, corn spurry, wild tomato, cleavers, shepherd's purse, cow cockle, night-flowering catchfly, stork's-bill, flixweed, narrow-leaved hawk's-beard</p> <p><u>Perennials</u> quackgrass, common milkweed*, yellow nutsedge*, perennial sow thistle, Canada thistle, wire-stemmed muhly</p>	<p>* A single application of 1.8 L/ha will provide suppression only.</p> <ul style="list-style-type: none"> • Common milkweed should be 15 – 60 cm in height and actively growing; yellow nutsedge should be 5 – 15 cm in height and actively growing. • Perennial sow thistle and Canada thistle should be in the rosette stage to 50 cm in height and actively growing. • Wire-stemmed muhly should be 10 - 20 cm in height and actively growing. • Plants not fully emerged at the time of application will escape treatment. • Only one application per season at 1.8 L/ha.

¹ Weeds will be more easily controlled and early competition avoided with applications made when weeds are small. Control of weeds greater than 25 cm in height will be inconsistent, although some weeds may be controlled.

TANK MIXTURES IN GLYPHOSATE TOLERANT CORN

CYCLE Herbicide plus CALLISTO 480SC Herbicide

For residual control of eastern black nightshade, velvetleaf, redroot pigweed and suppression of common ragweed in glyphosate tolerant corn, apply a tank mixture of 0.21 L/ha of CALLISTO 480SC Herbicide with 1.8 L/ha of CYCLE Herbicide, in 100-200 L of water per hectare. Add Agral 90 at 0.2% v/v. Apply up to and including the 8 leaf stage of corn. This tank mix should be used when only a single application timing is required. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide and CALLISTO 480SC Herbicide labels.

CYCLE Herbicide plus AATREX Liquid 480 Herbicide

For residual control of lamb's quarters, redroot pigweed, and common ragweed in glyphosate tolerant corn, apply a tank mixture of 1.6 – 2.1 L/ha of AATREX Liquid 480 Herbicide with 1.8 L/ha of CYCLE Herbicide. Apply up to and including the 5 leaf stage of corn. This tank mix should be used when only a single application timing is required. Use the higher rate of AATREX 480 Liquid Herbicide for heavier weed infestations. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide and AATREX Liquid 480 Herbicide labels.

CYCLCE Herbicide plus DUAL MAGNUM Herbicide or DUAL II MAGNUM Herbicide

For residual control of selected annual grasses listed on the DUAL MAGNUM Herbicide or DUAL II MAGNUM Herbicide labels in glyphosate tolerant corn, apply a tank mixture of 1.25 – 1.75 L/ha of DUAL MAGNUM Herbicide or DUAL II MAGNUM Herbicide with 1.8 L/ha of CYCLE Herbicide. Apply up to and including the 6 leaf stage of corn. This tank mix should be used when only a single application timing is required. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide, and DUAL MAGNUM Herbicide or DUAL II MAGNUM Herbicide labels.

CYCLE Herbicide plus CALLISTO 480SC Herbicide plus AATREX Liquid 480 Herbicide

For residual control of eastern black nightshade, velvetleaf, redroot pigweed and common ragweed in glyphosate tolerant corn, apply a tank mixture of 0.21 L/ha of CALLISTO 480SC Herbicide plus 0.58 L/ha AATREX Liquid 480 with 1.8 L/ha of CYCLE Herbicide, in 150-200 L of water per hectare. Add Agral 90 at 0.2% v/v. Apply up to and including the 8 leaf stage of corn. This tank mix should be used when only a single application timing is required. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide, CALLISTO 480SC Herbicide and AATREX Liquid 480 Herbicide labels.

CYCLE Herbicide plus PRIMEXTRA II MAGNUM Herbicide

For residual control of selected annual grasses and broadleaf weeds listed on the PRIMEXTRA II MAGNUM label in glyphosate tolerant corn, apply a tank mixture of 2.5 L/ha of PRIMEXTRA II MAGNUM Herbicide with 1.8 L/ha of CYCLE Herbicide, in 150-200 L of water per hectare. Apply up to and including the 6 leaf stage of corn. This tank mix should be used when only a single application timing is required. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide, and PRIMEXTRA II MAGNUM Herbicide labels.

CYCLE Herbicide plus Marksman Herbicide

For residual control of lamb's quarters, redroot pigweed, common ragweed and velvetleaf in glyphosate tolerant corn, apply a tank mixture of 2.5 to 3.7 L/ha of Marksman Herbicide with 1.8 L/ha of CYCLE Herbicide. Apply up to and including the 5 leaf stage of corn. This tank mix should be used when only a single application timing is required. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide, and Marksman Herbicide labels.

CYCLE Herbicide plus Elim EP Herbicide 25% Dry Flowable

For residual control of green foxtail, redroot pigweed, fall panicum and suppression of lamb's-quarters in glyphosate tolerant corn, apply a tank mixture of 50 g/ha of Elim EP 25% Dry Flowable Herbicide with 1.8 L/ha of CYCLE Herbicide. Apply up to and including the 6 leaf stage of corn. This tank mix will provide residual control until crop canopy closure. This tank mix should be used when only a single application timing is required. For more information on weeds controlled and rates follow the label directions for CYCLE Herbicide and Elim EP 25% Dry Flowable Herbicide labels.

SPOT TREATMENTS (IN-CROP)

May be used to control perennial weeds in barley, corn, oats, soybeans, wheat, strawberry, blueberry, forage grasses and legumes including seed production. Treatments may be made up to heading of small grain, initial pod set on soybeans, silking of corn and emergence of seed heads.

The crop in the treated area will be destroyed. Avoid drift beyond the treated area. **DO NOT APPLY IF CROP GROWTH HAS ADVANCED BEYOND SEED SET. [ALLOW 3 TO 5 DAYS FOR CYCLE HERBICIDE TO TRANSLOCATE INTO ALL PLANT PARTS BEFORE GRAZING OR HARVESTING TREATED AREAS IN FORAGES.]** (See General Use Precautions section for more information).

Application can be made using a boom sprayer, knapsack or high volume equipment (see APPLICATION EQUIPMENT).

FORAGE SEED PRODUCTIONS (FOR SPOT TREATMENT)

To control perennial weeds such as quack grass and Canada thistle in seed fields. Apply to weeds at least 20 to 25 cm in height and before emergence of seed head. **The crop in the treated area will be destroyed.** Avoid drift outside of treated area.

PRE-HARVEST USE ON wheat, barley, oats, canola (including Glyphosate Tolerant Canola), peas, lentils, flax (including low linolenic acid varieties), soybeans (including Glyphosate Tolerant Soybeans), dry beans, forages

GROUND APPLICATION

For control of quack grass, Canada thistle, common milkweed, dandelion, toadflax, and season long control of perennial sowthistle. CYCLE Herbicide can be applied prior to harvest of wheat, barley, oats, canola (including glyphosate tolerant canola), peas, lentils, flax (including low linolenic acid varieties), soybeans (including glyphosate tolerant soybeans), dry beans, forages. **DO NOT** apply to crops if grown for seed production.

This treatment may also provide harvest management benefits, by drying down crop and weed vegetative growth, for example, where late flushes of annual weeds, green vegetative crop growth, or late tillering may interfere with harvest operations. **EXTREMELY COOL, WET AND/OR CLOUDY WEATHER CONDITIONS BETWEEN THE TIME OF APPLICATION AND THE ANTICIPATED HARVEST DATE MAY SLOW DOWN ACTIVITY OF THIS PRODUCT, THEREBY DELAYING CROP DRYDOWN AND HARVEST DATE.**

CYCLE Herbicide should be applied pre-harvest at 1.8 L/ha in 50 to 100 L/ha of clean water, by ground application only. Apply only when the crop has 30% or less grain moisture content. This stage typically occurs 7 to 14 days before harvest. For forage crops, apply this product at 1.8 to 3.6 litres per hectare 3 to 7 days prior to the last cut before rotation or forage renovation. Consult the following table for visual indicators of this stage in each crop. For the best weed control results, quack grass should be actively growing and have at least 4 to 5 green leaves. Canada thistle and perennial sowthistle should be actively growing and at or beyond the bud stage for best results. Common milkweed should be at the bud to bloom stage and actively growing for best results. Applications for weed control (not for harvest management) must be made at the correct stage of both weed and crop growth.

Apply only during the period 7-14 (or 3 to 7 days for forage application) days before harvest to ensure best weed control and to maximize harvest management benefits. Earlier application may reduce crop yield and/or quality, and may lead to excess glyphosate residues in the crop.

Forage can be harvested as hay, haylage or grazed.

Overspray or drift to important wildlife habitats such as bodies of water, wetlands (e.g. sloughs), shelter belts, woodlots and other cover on the edges of fields frequented by wildlife, should be avoided.

Do not expose or contaminate any body of water or non-target vegetation by direct application, spray drift or when cleaning and rinsing spray equipment.

DO NOT APPLY BY AIRCRAFT.

TABLE 1: Guidelines for Timing of Pre-harvest Applications

VISUAL SYMPTOMS

<u>CROP(S)</u>	<u>(grain moisture is less than 30%)</u>
Wheat	Hard dough stage; thumbnail impression remains on the seed.
Barley	Hard dough stage; thumbnail impression remains on the seed.
Oats	Hard dough stage; thumbnail impression remains on the seed.
Canola (including Glyphosate Tolerant Canola)	Pods are green to yellow; most seeds are yellow to brown.
Peas	Majority (75%-80%) of pods are brown.
Flax (including low linolenic acid varieties)	Majority (75%-80%) of bolls are brown.
Lentils	Lowermost pods (bottom 15%) are brown and seeds rattle.
Soybeans (including Glyphosate Tolerant soybeans)	Stems are green to brown in colour; pod tissue is dry and brown in appearance; 80-90% leaf drop.
Dry Beans	Stems are green to brown in colour; pods are mature (yellow to brown in colour); 80-90% leaf drop (original leaves).
Forages	Apply 3-7 days prior to last cut in the final year of the forage.

POST HARVEST STUBBLE TREATMENT

This product, or labelled tank mixes, may be applied to control weeds listed on this label. Allow weeds to regrow to the desired stage (20 to 25 centimetres tall for quack grass and Canada thistle) before application and ensure they have a high proportion of green colouration. Straw should be removed or evenly spread to allow for proper regrowth and spray coverage. Heavy frosts prior to application may decrease control.

CYCLE Herbicide plus Dicamba 480

For control of Canada thistle and perennial sowthistle in post harvest stubble, apply 1.2 L/ha of CYCLE Herbicide plus 1.25 L/ha Dicamba 480 in 100-200 L/ha of clean water. An adjuvant must be added for use with this tank mixture.

In post harvest stubble, apply this tank mixture to actively growing Canada thistle and perennial sowthistle at least 2 weeks prior to a killing frost.

NOTE: Grow only cereals, canola (including rapeseed), soybeans, field corn, sweet corn, or white beans after application of this mixture.

If application is made after September 1st, or if soil moisture levels are extremely low after application, crop injury may occur in the spring following application.

FALL STUBBLE

This product, or labelled tank mixes, may be applied in fall stubble to control weeds listed on this label.

USE RATES

CYCLE Herbicide applied alone will not control glyphosate tolerant volunteer crops.

Results are best when weeds are actively growing. If weeds have been mowed, allow to return to optimum growth stages.

Delay application until vegetation has emerged to the stages described for control of such vegetation under the Annual and Perennial Weed Control tables of this booklet to provide adequate leaf surface to receive the spray. Non-emerged plants arising from underground rhizomes or rootstocks of perennials will not be affected by the spray and will continue to grow. For this reason, best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of CYCLE Herbicide per hectare within the recommended range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage as reduced weed control may result.

CYCLE Herbicide may be used with the following surfactants: AGRAL[®] 90 or AgSurf[†]. Always refer to surfactant label for specific instructions regarding use of that product.

Heavy rainfall immediately after application may wash the chemical off the foliage and a repeat application may be required. Do not apply if rainfall is forecasted for the time of application.

Do not mix with any surfactant, pesticide, herbicide, oil or any other material other than water unless specified in this booklet. For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

ANNUAL WEED CONTROL

CYCLE Herbicide applied alone will not control glyphosate tolerant volunteer crops .

Allow at least one day after treatment before conducting tillage.

Annual weeds will continue to germinate from seed throughout the growing season. It may be necessary to conduct repeat applications to control later germinating weeds.

ANNUAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
Boom or Boomless	Wild oats, Green foxtail, Volunteer cereals, non-glyphosate tolerant volunteer canola, wild mustard, lady's-thumb, stinkweed	Weeds up to 8 cm in height	0.50	50-100	For wild oats, apply at 1-3 leaf stage. Add 350 mL of a surfactant registered for use such as AGRAL® 90, AgSurf†. For heavy wild oat infestations, use 0.7 L/ha rate.
Boom or Boomless	All annual grasses listed above plus foxtail barley* (suppression only) All annual broad leaved weeds listed above plus flixweed** and kochia**	Weeds 8 cm to 15 cm	0.70	50-100	Add 350 mL of surfactant registered for use as listed above. *Apply before initiation of seed-head or senescence of the lower leaves. **Suppression only. Refer to higher rates of this table or tank mix table for control options.
Boom or Boomless	All annual grasses listed above plus downey brome, giant foxtail and persian darnel All annual broadleaved weeds listed above plus cleavers, lamb's-quarters, redroot pigweed, hemp-nettle, flixweed, russian thistle, volunteer flax, common ragweed*, Canada fleabane*, wild buckwheat**, narrow-leaved hawk's-beard***	Weeds up to 15 cm in height	0.9 – 1.4	50-100	No additional surfactant required. For tankmix weed control see Tank Mix chart. * DO NOT use these rates on plants greater than 8 cm in height. ** For 3-4 leaf stage, use 1.4 L/ha rate. *** For weeds 8 cm to 15 cm in height, use 1.4 L/ha.
	All annual grasses listed above plus crabgrass and annual blue grass. All annual broadleaved weeds listed above plus kochia, prickly lettuce, shepherd's-purse, annual sowthistle, and narrow-leaved vetch	Weeds up to 15 cm in height	1.6	50-100	* For additional annual broadleaved weed control options, refer to Tank Mix chart.
	All annual grasses and broadleaved weeds listed above	Weeds over 15 cm in height	2.5	50-100	* For additional annual broadleaved weed control options, refer to Tank Mix chart.

ANNUAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
Wipers and Wicks	Green foxtail, wild oats, volunteer barley, volunteer corn, lamb's-quarters	Weeds to be at least 15 cm above desirable vegetation	0.7	2	This mixture is a 41% solution. Contact point for wiper or wick must be at least 5 cm above desirable vegetation. In severe weed infestations, reduce ground speed to ensure adequate control. See Application Equipment section for instructions on wiper and wick application.
Rollers	Green foxtail, wild oats, volunteer barley, volunteer corn, lamb's-quarters	Weeds to be at least 15 cm above desirable vegetation	0.35 – 0.70	10	This mixture is a 3.5 –7.0% solution. Roller speed 50-150 rpm. See Application Equipment section for instructions on roller application.

PERENNIAL WEED CONTROL

Weed Stages: Weeds must be at the proper stage for effective control. Refer to “**PERENNIAL WEED CONTROL**” Table.

Nozzle Type: For best results with conventional boom equipment, apply this product with 50 to 300 litres per hectare of clean water using flat fan nozzles and no more than 275 kPa pressure.

Rhizome Dormancy: Reduced control may result if rhizomes have become dormant. Dormancy may occur if soil fertility is low and/or the land has not been tilled for several years.

Mowing Effects: Mowing prior to application will reduce effectiveness unless weeds are allowed to regrow to the proper stage before application.

Tillage Effects: Fall or spring tillage prior to spring applications and tillage between harvesting and fall applications will reduce the effectiveness on perennial weeds. Follow-up tillage after application should be delayed 5 to 10 days for best results. See “**Weed Control**” tables for specific tillage interval for each weed.

Rainfall Effects: Heavy rainfall immediately after application may wash the chemical off the foliage and a repeat treatment may be required to control weeds regenerating from seeds or other underground parts. Do not apply if rainfall is forecast for the time of application.

Regrowth from Germinating Seeds : This product only controls emerged plants. Repeat treatments or other weed control measures may be required to control weeds regenerating from seeds or other underground parts.

Frost Effects: Heavy frosts prior to application may reduce control. Do not apply after the first damaging frost in the fall.

PERENNIAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
Boom or Boomless	Field Bindweed	Full bloom or beyond	5.0 – 8.6	100 to 300	Allow 7 days or more after application before tillage.
	Common Milkweed	Bud to full bloom (preharvest)	1.8	50 - 100	Spot treatment rate is 85 mL per 5 L water/100 m ² and spray to wet not runoff.
		Bud to full bloom for most shoots	8.6	100 to 300	Reduced results may occur if sprayed after full bloom. Common milkweed may not all be in the correct stage, therefore, repeat treatment may be required. Allow 7 days or more after application before tillage.
	Quack Grass Spring Application (no fall tillage)	3 to 4 green leaves (approx. 20 cm high)	1.8	50 to 300	Season long control. At higher water volumes (i.e. 150 – 300 L/ha), use an approved surfactant at 0.5% v/v (0.5 L per 100 L clean water). Allow 3 days after application before tillage.
	Quack Grass Spring Application (fall-tilled land)	4-5 green leaves (approx. 20 cm high)	1.8	50 to 300	Season long control. Apply in spring prior to seeding. Growth stage usually reached 1 to 4 weeks later on land that has been fall-tilled. Reduced control may result on land tilled deeper than 15 cm.

PERENNIAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
	Quack Grass Fall Application	3-5 green leaves (approx. 20 cm high)	1.8	50 to 300	<p>For season long control the following year.</p> <p>Do not till between harvest and application. Allow 5 days or more after application before tillage.</p> <p>Rates higher than 1.8 L/ha will provide more consistent, longer term control, especially with heavier infestations and/or higher water volumes (i.e. 150 – 300 L/ha).</p>
			1.8 – 5.0	50 to 300	<p>LONG TERM CONTROL Reduced control may result if rhizomes have become dormant due to poor sod or land has not been tilled for several years.</p> <p>Treatment after a mild frost is possible if 3-4 leaves are still green and actively growing but not after a heavy frost.</p> <p>Straw should be removed or evenly spread to allow re-growth and adequate spray coverage.</p>

PERENNIAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
Boom and Boomless	Canada Thistle	Bud stage or beyond	3.4 – 5.0	100 to 300	Allow 5 days after application before tillage.
		Rosette stage (summerfallow)	1.8	50 to 100	Heavy frost prior to application may decrease control. Ensure proper growth stage by performing last summerfallow tillage between July 15 and August 1st. Allow re-growth for minimum of 5 weeks to reach rosette stage and a minimum of 15 cm in diameter. Allow 10 days after application before tillage. Treatment after mild frost is possible if leaves are still green and actively growing but not after heavy damaging frost. Refer to “CANADA THISTLE CYCLE Herbicide plus Dicamba” section
Boom and Boomless	Toadflax	Vegetative Stage (summerfallow) Bud to full bloom (preharvest)	1.8	50 - 100	Allow 7 or more days after treatment before tillage in summerfallow. Vegetative Stage: Ensure proper growth stage by performing last summerfallow tillage between July 10 th and July 21 st . Allow re-growth for a minimum of 4 to 5 weeks to reach rosette stage and a minimum of 15 cm in diameter and at a lush green vegetative stage. Treatment after mild frost is possible if leaves are still green and actively growing but not after heavy damaging frost.

PERENNIAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
Boom and Boomless	Alfalfa	Early bud to full bloom stage Fall applications only	2.7 – 3.6	50 - 300	Allow 5 or more days after treatment before tillage. Use the higher rates when alfalfa populations are high or when heavy grass infestations are also present. For spring applications and control in minimum tillage systems using a 2,4-D tank mix, see "ALFALFA -CYCLE Herbicide plus 2,4-D" section.
Boom and Boomless	Dandelion	< 15 cm > 15 cm Rosette to full bloom (preharvest)	1.8 2.7 – 3.6 1.8	50 – 100 50 – 300 50 - 300	Allow 3 or more days after treatment before tillage for all rates. Use the higher rate when infestations are heavy. Refer to "Dandelion" notes for more information. Allow 7 or more days after treatment before tillage. For more information, see "Preharvest Use" section.
Boom and Boomless	Foxtail Barley	Seeding to heading	1.8 – 3.6	50 - 100	Allow a minimum of 1 day after treatment before tillage or seeding. Use higher rates for larger, more established plants, heavy infestations or if plants are stressed.
Boom or Boomless	Wirestem muhly, alfalfa, broad-leaved plantain, Canada goldenrod, horsetail, mouse-eared chickweed, sheep sorrel and wild grape Redtop, orchard grass, colt's-foot, dandelion, grass-leaved stitchwort, Jerusalem artichoke, round-leaved mallow, smooth bedstraw, stork's-bill, white clover and wild carrot		1.6 – 3.2 3.2 – 5.0	100-300 100-300	Use higher rate for weeds beyond 8 cm in height or in heavy weed infestation. Allow 7 days after application before tillage. Use higher rate for weeds beyond 8 cm in height or in heavy weed infestation. Allow 7 days after application before tillage.

PERENNIAL WEED CONTROL					
Equipment	Weeds Controlled	Growth Stage	Rate L/ha	Water Volume L/ha	Comments
Boom or Boomless	Other Perennial Weeds	Early heading or early bud stage (See Weeds Controlled Section)	5.0 – 8.6	100-300	Use higher rate for weeds beyond 8 cm in height or in heavy weed infestation. Allow 7 days after application before tillage. CYCLE Herbicide rate is equivalent to 50-86mL/100 m ²
Wiper and Wicks	Canada Thistle, milkweed, quack grass, cottontop	Weeds to be at least 15cm above desirable vegetation.	0.70	2	See Application Equipment section for instructions on Wiper and Wick Application.
Rollers	Canada Thistle, milkweed, quack grass, cottontop	Weeds to be at least 15cm above desirable vegetation.	0.35 – 0.70	10	This mixture is a 3.5 - 7% solution. See Application Equipment section for instructions on Roller Application. This treatment will only suppress perennial weeds contacted . Roller speed 50-150 rpm.

CANADA THISTLE

CYCLE Herbicide plus Dicamba 480

For control of Canada thistle (and perennial sowthistle) in summerfallow or in post-harvest stubble, apply 1.2 litres per hectare CYCLE Herbicide plus 1.25 litres per hectare Dicamba 480 in 100 – 200 litres per hectare of clean water. In addition, add 350 millilitres per hectare of a non-ionic surfactant registered for use with this product, such as Agral 90 or Ag Surf. For best results in summerfallow, cultivate in the spring and apply when the majority of Canada thistle and perennial sowthistle are 15 centimetres to 25 centimetres tall and before the bud stage. Cultivate 3 weeks after application.

In postharvest stubble, apply this tank mixture to actively growing Canada thistle and perennial sowthistle at least 2 weeks prior to a killing frost.

NOTE: Grow only cereals, canola, soybeans, field corn, sweet corn or white beans after application of this tank mixture.

If application is made after September 1st, or if soil moisture levels are extremely low after application, crop injury may occur in the spring following application.

ALFALFA

CYCLE Herbicide plus 2,4-D

The addition of 2,4-D may improve alfalfa control in situations where control may be more difficult to obtain, such as in minimum tillage systems where populations are heavy, and with spring applications.

For fall control of established stands of alfalfa, apply 1.8 – 3.6 litres per hectare CYCLE Herbicide and 1.2 to 2.4 litres per hectare of any 500 grams per litre 2,4-D amine or low volatile ester formulation in 100 to 200 litres of water per hectare. (Adjust product rates accordingly for other 2,4-D formulations). For spring applications, use only the low rate of 2,4-D (i.e., 1.2 litres per hectare) and 1.8 – 3.6 litres per hectare CYCLE Herbicide. Only cereal crops not underseeded to legumes may be planted following spring applications of this tank mix, and a 14 day interval between application and planting is required. Use the higher CYCLE Herbicide rates when perennial grasses are prevalent.

APPLICATION EQUIPMENT (Mixing and Application Instructions)

BOOM (Ground Boom) and BOOMLESS Equipment:

Mixing

For field or industrial type sprayers, fill the spray tank with one half the required amount of water. Add the proper amount of CYCLE Herbicide (see Use Rate Table) and mix well before adding the remaining portion of water. Placing the filling hose below the surface of the liquid solution will prevent any excessive foaming. Remove the hose from tank immediately after filling to avoid back siphoning into water source (a one-way valve should be installed to prevent back siphoning). Use of mechanical agitators may cause excessive foaming. By-pass lines should terminate at the bottom of the tank.

If tank mixing, use the following mixing order:

1. Fill the spray tank with $\frac{1}{2}$ the required amount of water.
2. Add any WG or DF formulation mix partners, and agitate to ensure complete mixing.
3. Add any suspension concentrate (SC) formulation mix partners, and agitate to ensure complete mixing.
4. If using PRIMEXTRA II Magnum as a mix partner, add the required surfactant, AgSurf or Agral 90, at 0.25% v/v and agitate to ensure complete mixing.
5. Add any emulsifiable concentrate (EC) formulation mix partners and agitate to ensure complete mixing.
6. Fill the tank to $\frac{3}{4}$ the required amount of water.
7. Add any solution (SN) formulation mix partners and agitate to ensure complete mixing.
8. Add CYCLE Herbicide.
9. Finish filling the sprayer with water, maintaining gentle agitation.

Application

Use flat fan nozzles in boom sprayers. To control perennial weeds, apply CYCLE Herbicide in 50 to 300 L of water per hectare as a broadcast spray. Use no more than 275 kPa pressure.

To control annual weeds as listed, apply CYCLE Herbicide in 50 L to 100 L of water per hectare as a broadcast spray. Use no more than 275 kPa pressure.

KNAPSACK SPRAYERS HAND HELD AND HIGH VOLUME EQUIPMENT

High volume spraying utilizes handguns or other suitable nozzle arrangements to apply a directed spray to weeds. Use coarse sprays only.

Mixing

Mix the proper amount of CYCLE Herbicide with water in a larger container. Fill the sprayer with the mixed solution.

Unless otherwise stated, make a 0.7% solution of CYCLE Herbicide in water (0.7 L of CYCLE Herbicide in 100 L of water). A 1.4% solution (1.4 L of CYCLE Herbicide in 100 L of water) should be used on harder to control perennials.

Application

Spray coverage should be uniform and complete. Apply on a spray-to-wet basis. Do not spray to the point of run-off. Handgun application should be properly directed to avoid spraying desirable plants.

WIPER, WICK AND ROLLER EQUIPMENT

These applicators apply CYCLE Herbicide solution directly onto the weeds by contacting the weed with an absorbent material containing the herbicide solution. The weeds must be above any desired vegetation to prevent contact with the desired vegetation.

Mixing

Mix the proper amount of CYCLE Herbicide with water in a larger container. Use this mixed solution in the wiper, wick or roller equipment.

Application

These applicators can be used to control weeds in the following agricultural crops: apple, cherry, peach, apricot, pear and plum orchards, grape vineyards and cranberries.

The applicator should be adjusted so that the contact point of the wiper, roller or wick is at least 5 cm above the desirable vegetation. Droplets or foam of the CYCLE Herbicide solution settling on desirable vegetation may result in discolouration, stunting or destruction.

Weeds should be a minimum of 15 cm above the desired vegetation.

Best results may be obtained if two applications are made in opposite directions where possible. Otherwise, best results may be obtained when more of the weed is exposed to CYCLE Herbicide Solution.

Weeds not contacted will not be affected. This may occur in dense clumps, severe infestation, or when the height of the weeds varies so that not all weeds are contacted. In these instances, a repeat treatment may be necessary.

AVOID CONTACT WITH DESIRABLE VEGETATION.

Application Notes:

- * Maintain wiper equipment in good operating condition. Care must be taken with all types of wipers to ensure that the absorbent material does not become over saturated, causing the herbicide to drip onto desirable vegetation.
- * Avoid leakage or dripping onto desirable vegetation.
- * Adjust height of wiper applicator to ensure proper contact with weeds.
- * Keep wiping surfaces clean.
- * Maintain recommended roller speed on roller applicators while in use.
- * DO NOT use wiper equipment when weeds are wet.
- * DO NOT operate equipment at ground speeds below 4 and greater than 10 km/h. Weed control may be affected by speed of application equipment. As weed density increases, reduce equipment ground speed to ensure good coverage of weeds.
- * Be aware that on sloping ground the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of the wiper applicator.
- * Variation in equipment design may affect weed control. With wiper applicators, the wiping material and its orientation must allow delivery of sufficient quantities of the recommended CYCLE Herbicide solution directly to the weed.
- * Mix only the amount of solution to be used during a one-day period, as reduced activity may result from use of leftover solution. Thoroughly drain and clean all equipment immediately after use.

Resistance-Management Recommendations

For resistance management, CYCLE Herbicide is a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to CYCLE Herbicide and other Group 9 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 CYCLE Herbicide or other Group 9 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 or to report suspected resistance, contact company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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