

*[Bag Label]*

<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>
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## **ULTIM™ AS HERBICIDE**

DRY FLOWABLE

FOR SALE FOR USE ON FIELD CORN IN EASTERN CANADA AND MANITOBA

AGRICULTURAL

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

<b>ACTIVE INGREDIENT:</b>	Rimsulfuron	37.5%
	Nicosulfuron	37.5%

REGISTRATION NO. 32887 PEST CONTROL PRODUCTS ACT

CAUTION - SKIN IRRITANT  
WARNING - EYE IRRITANT

**NET CONTENTS:** 13.5 - bulk GRAMS

Production Agriscience Canada Company  
P. O. Box 730  
7398 Queen's Line  
Chatham, Ontario  
N7M 5L1  
519-352-6350

**PRECAUTIONS:**

- **KEEP OUT OF REACH OF CHILDREN.**
- Potential skin sensitizer.
- Avoid breathing spray mist.
- Avoid contact with skin, eyes and clothing.
- Do not contaminate any body of water.
- **DO NOT APPLY BY AIR.**
- As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.
- **DO NOT** contaminate irrigation/drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- Wear long-sleeved shirt, long pants, socks, and chemical-resistant gloves and footwear during mixing, loading, application, clean-up and repair. Chemical-resistant gloves are not required while operating groundboom sprayers.

**ENVIRONMENTAL HAZARDS:**

- **TOXIC** to non-target terrestrial plants and aquatic organisms. Observe buffer zones specified under **DIRECTIONS FOR USE.**
- The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.
- 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.

**FIRST AID:**

**EYE CONTACT:**

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.

**SKIN CONTACT:**

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.

**INGESTION:**

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.

**INHALATION:**

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 treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

For medical emergencies call 1-800-441-3637 (24 hours).

**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

**STORAGE:**

Store product in original container only, away from other pesticides, fertilizer, food or feed to prevent contamination. Not for use or storage in or around the home. Keep container closed. Keep water soluble bags in original outer bag or outer container away from moisture.

**DISPOSAL:**

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

**For MYLAR® bag containers:**

1. Make the empty bag unsuitable for further use.
2. Dispose of the bag in accordance with provincial requirements.

**For recyclable containers:**

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

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**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.

[DFU Pamphlet]

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- Wear long-sleeved shirt, long pants, socks, and chemical-resistant gloves and footwear during mixing, loading, application, clean-up and repair. Chemical-resistant gloves are not required while operating groundboom sprayers.

**FIRST AID:**

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**INGESTION:**

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.

**INHALATION:**

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 treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

For medical emergencies call 1-800-441-3637 (24 hours).

**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

**APPLICATION PRECAUTIONS:**

- Injury to or loss of desirable trees or vegetation may result from failure to observe the following: Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water, including irrigation water. Keep from contact with fertilizers, insecticides, fungicides and seeds.
- **APPLY ULTIM™ AS HERBICIDE WITH A RECOMMENDED SURFACTANT.**
- **DO NOT APPLY BY AIR.**
- Do not handle pesticides with bare hands. Chemical-resistant gloves significantly reduce hand exposure. Wear gloves for mixing/loading/clean-up operations and when making sprayer and nozzle repairs and adjustments. Do not use leather or cloth gloves.
- Carefully observe sprayer cleanup instructions, as spray tank residue may damage crops other than corn.

**GENERAL INFORMATION:**

ULTIM AS Herbicide is a dry flowable granular formulation to be mixed in water and applied postemergence to field corn in Eastern Canada for control of quackgrass, annual grasses, and redroot pigweed. ULTIM AS Herbicide should be applied at a rate of 33.3 g/Ha.

ULTIM AS Herbicide is non-corrosive, non-flammable, non-volatile, and does not freeze. ULTIM AS Herbicide rapidly stops growth of susceptible species; typical symptoms usually appear within 5-7 days, but may not be noticeable for 2-3 weeks after application, depending on growing conditions and weed susceptibility. Warm, moist conditions following application promote the activity of ULTIM AS Herbicide, while cool and/or dry conditions may reduce or delay activity. Weeds hardened off by cold weather or drought stress may not be controlled.

Weed control may be reduced if the corn canopy has closed in over the weeds, intercepting the spray.

ULTIM AS Herbicide is a contact herbicide, and will not give residual control of grass or broadleaf weed seedlings that may germinate after application.

**DIRECTIONS FOR USE:**

- Do not re-enter treated fields until 12 hours after application.
- Apply only when the potential for drift to areas of human habitation or areas of human activity (houses, cottages, schools and recreational areas) is minimal. Take into consideration wind speed, wind direction, temperature, application equipment and sprayer settings.
- DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Field Spray 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) medium classification. Boom height must be 60 cm or less above the crop or ground.
- DO NOT apply by air.

**Buffer zones:**

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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Buffer Zones (metres) Required for the Protection of:		
	Terrestrial Habitat	Aquatic habitats of water depths:	
		< 1 m	> 1 m
Field sprayer	5	1	1

NOTE: Applicators may recalculate a site-specific buffer zone by combining information on current weather conditions and spray configuration for the following applications: all airblast applications, and for field and aerial applications which specify the following droplet size category wording on the product label: 'DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) medium classification.' To access the Buffer Zone Calculator, please visit the Pest Management Regulatory Agency web site.

When a tank mixture is used, consult the labels of the tank-mix partners and use the largest (most restrictive) buffer zone recommended for any of the products.

#### **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

- A rapid fluctuation in temperature (greater than 20 °C difference within 24-36 hours) will stress the corn crop. For maximum crop safety, allow 48-72 hours for the corn to acclimatize before spraying ULTIM AS Herbicide.
- For ULTIM AS Herbicide used alone or in a tankmix, apply ONLY when the temperature in the 24 hours before AND after application ranges between 5°C and 28 °C. Temperatures beyond this range increase the potential for crop injury. Separate applications of ULTIM AS Herbicide followed by a broadleaf herbicide (minimum 12 hours later) will reduce the potential for injury.
- Ensure that the boom is set at the proper height in relation to the corn plants to apply ULTIM AS Herbicide accurately and uniformly, and to AVOID excessive application into the corn whorl.
- WARNING: Crop injury may result if application is made to corn that has been stressed by abnormally hot, humid or cold weather conditions, frost, low fertility, drought, water saturated soil, compacted soil, previous pesticide applications, disease or insect damage. If corn has been injured by frost, wait 48-72 hours before applying ULTIM AS Herbicide.
- When tank mixing ULTIM AS Herbicide with a broadleaf herbicide, always read the broadleaf herbicide label before using and follow all precautions.
- ULTIM AS Herbicide rapidly stops growth of susceptible species; typical symptoms usually appear within 5-7 days, but may not be noticeable for 2-3 weeks after application, depending on growing conditions and weed susceptibility.
- Warm, moist conditions following application promote the activity of ULTIM AS Herbicide, while cool and/or dry conditions may reduce or delay activity. Weeds hardened off by cold weather or drought stress may not be controlled.
- ULTIM AS Herbicide is a contact herbicide, and will not give residual control of grass or broadleaf weed seedlings that may germinate after application.
- Weed control may be reduced if the corn canopy has closed in over the weeds, intercepting the spray.

#### **ENVIRONMENTAL HAZARDS**

- TOXIC to non-target terrestrial plants and aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.
- The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sandy soil) and/or the depth to the water table is shallow.
- To reduce runoff from treated areas into aquatic habitats, avoid areas with a moderate to steep slope, compacted soil or clay.
- Avoid application of this product 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.

**CORN HYBRID SENSITIVITY**

Corn hybrids with corn-heat-unit (CHU) ratings of 2500 or less have shown some sensitivity to ULTIM AS Herbicide. DO NOT USE ULTIM AS HERBICIDE ON CORN HYBRIDS WITH CHU RATINGS OF 2500 OR LESS OR IN GEOGRAPHIC REGIONS HAVING 2500 OR LESS AVERAGE SEASONAL CORN HEAT UNITS.

Corn hybrids of 2550 CHU or greater that have shown considerable crop injury from applications of ULTIM AS Herbicide are listed below. ULTIM AS Herbicide should not be sprayed for weed control in fields planted with these hybrids.

PIONEER® BRAND 3897	MAX 78
PIONEER® BRAND 3936	G-4034
PIONEER® BRAND 3941	G-4120
PICKSEED® 2525	G-4160

Do not use on sweet corn. Do not use on seed corn or popcorn.

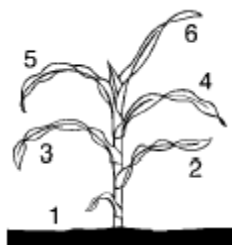
**ULTIM AS HERBICIDE USED ALONE****SPRAY ADJUVANTS:**

ULTIM AS Herbicide must be applied with a recommended non-ionic surfactant, either CITOWETT\* PLUS, AGRAL\* 90 or AG-SURF\* at 2 L per 1000 L spray solution (0.2% v/v) or SIDEKICK\* at 2.5 L per 1000 L spray solution (0.25% v/v).

**RATES AND TIMING:**

Apply 33.3 g/ha of ULTIM AS Herbicide as a broadcast spray, with a recommended surfactant to corn and weeds according to the following chart:

Crop or Weed	Leaf Staging at Application
Corn	1-6 leaves (4 visible collars or 30 cm in height - leaf extended) See diagram below
Annual Grasses	1-6 leaves (up to early tillering, 2 - two leaf tillers)
Long-spined Sandbur	3-5 leaves
Quackgrass	3-6 leaves (10-20 cm in height - leaf extended)
Redroot Pigweed	2-6 leaves (10 cm tall or across)

**CORN LEAF STAGING**

Apply ULTIM AS Herbicide from the 1 to 6-leaf stage (4 visible collars or 30 cm in height - leaf extended).



The coleoptile (short, blunt leaf) is counted as the first leaf. A corn leaf is counted as a full leaf when the next leaf is visible in the corn whorl.

If using a tank mixture with another herbicide, refer to the section on tank mixtures below for correct timing.

Applications of ULTIM AS Herbicide after the 6-leaf stage of corn (30 cm in height leaf extended) must be delayed until after the 8-leaf stage and before silking, when a height differential can be established between the corn and target weeds. When drop piping, ensure that the crop stand is UNIFORM so that all the spray solution is directed below the canopy to keep the spray out of the corn whorl. Application at the later stage must be directed below the corn canopy to keep the spray out of the corn whorl.

#### **WEEDS CONTROLLED BY 33.3 GRAMS/HA:**

Barnyard Grass	Proso Millet <sup>2</sup>	Yellow Foxtail <sup>†</sup>
Fall Panicum	Quackgrass <sup>1</sup>	Old Witch Grass
Green Foxtail	Redroot Pigweed (including triazine resistant)	
Long-spined sandbur	Volunteer Canola <sup>3</sup>	
<sup>†</sup> Suppression only		

#### **NOTE:**

Weeds that emerge after application of ULTIM AS Herbicide will not be controlled. Application should be made when the majority of weeds have emerged.

Annual grasses and redroot pigweed are most sensitive when small and actively growing.

Early crop establishment and a good crop stand (minimum of 50,000 plants per hectare) are important in providing competition for weeds and for effective postemergence control of quackgrass and annual grasses.

#### **Specific Weed Control Recommendations:**

1. Quackgrass - Apply ULTIM AS Herbicide with a recommended surfactant postemergence when the majority of the quackgrass shoots are actively growing and in the 3 to 6-leaf stage (10 to 20 cm in height - leaf extended). If the correct leaf stage of quackgrass does not coincide with the correct leaf stage of broadleaf weeds (see tank mix section of this label), separate applications of ULTIM AS Herbicide and a broadleaf herbicide are required. Annual grasses not emerged at the time of ULTIM AS Herbicide application to quackgrass will not be controlled.
2. Proso Millet - Apply ULTIM AS Herbicide with a recommended surfactant postemergence when the majority of proso millet has emerged and before the largest proso millet plants reach the multi-tillered (3 to 4 tillers) stage. If, at correct growth stage for proso millet, corn is beyond the 6- leaf stage, application of ULTIM AS Herbicide must be delayed until after the 8-leaf stage of corn and before silking, when a height differential can be established between the corn and proso millet. When drop piping, ensure that the crop stand is uniform so that all the spray solution is directed below the canopy to keep the spray out of the corn whorl. Reduced control of proso millet may result from this timing of application due to the advanced stage of the weed plants.
3. For control of volunteer canola, including glyphosate tolerant varieties, apply ULTIM AS Herbicide as a broadcast spray, with a recommended surfactant to corn post-emergent and when the volunteer canola is between the cotyledon and 5-leaf stage.

### **ULTIM AS HERBICIDE TANK MIXES**

#### **ULTIM AS HERBICIDE + BANVEL\* HERBICIDE**

ULTIM AS Herbicide may be tank mixed with BANVEL\* Herbicide to control annual grasses, quackgrass and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS Herbicide and 600 mL/ha of BANVEL\* Herbicide with a non-ionic surfactant at 0.2% v/v (2 L/1000 L) and apply postemergence to corn up to the 6-leaf stage (4 visible collars or 30 cm in height - leaf extended).

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the BANVEL\* Herbicide label. Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS Herbicide. Refer to the BANVEL\* Herbicide label for weeds controlled by BANVEL\* Herbicide and consult the label for additional application instructions and use precautions.

The tank mix of ULTIM AS Herbicide and BANVEL\* Herbicide must not be applied after the 6-leaf stage (4 visible collars or 30 cm in height - leaf extended) of corn.

#### **ULTIM AS HERBICIDE + BANVEL\* II HERBICIDE**

ULTIM AS may be tank mixed with BANVEL\* II Herbicide to control annual grasses, quackgrass and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS Herbicide and 600 mL/ha of BANVEL\* II Herbicide with a non-ionic surfactant at 0.2% v/v (2 L/1000 L) and apply postemergence to corn from the spike to the 6-leaf stage (4 visible collars or 30 cm in height - leaf extended).

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the BANVEL\* II Herbicide label. Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS Herbicide. Refer to the BANVEL\* II Herbicide label for weeds controlled by BANVEL\* II Herbicide and for additional application instructions and use precautions.

The tank mix of ULTIM AS Herbicide and BANVEL\* II Herbicide should be applied at weed stage of emergence to 6-leaf. Do not apply after 6-leaf (4 visible collars or 30 cm tall) stage of corn.

#### **ULTIM AS HERBICIDE + DISTINCT\* HERBICIDE**

ULTIM AS Herbicide may be tank mixed with DISTINCT\* Herbicide to control annual grasses, quackgrass, horsenettle, and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS HERBICIDE and 285 grams of DISTINCT\* Herbicide with a non-ionic surfactant at 0.25% v/v (2.5 L/1000 L) plus liquid urea ammonium nitrate (UAN) at 1.25% v/v (12.5 L/1000L) and apply postemergence to corn from the 2- to 6-leaf stage.

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the DISTINCT\* label, plus horsenettle. Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS. Refer to the DISTINCT\* label for weeds controlled by DISTINCT\* Herbicide and for additional application instructions and use precautions.

The tank mix of ULTIM AS Herbicide and DISTINCT\* Herbicide should be applied to actively growing weeds at growth stages of emergence to 6-leaf (quackgrass at the 3- to 6-leaf stage, horsenettle at the 2- to 6-leaf). Do not apply after 6-leaf (4 visible collars or 30 cm tall) stage of corn.

**ULTIM AS HERBICIDE + MARKSMAN\* HERBICIDE**

ULTIM AS Herbicide may be tank mixed with MARKSMAN\* to control annual grasses, quackgrass and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS Herbicide and 2.5 L/ha of MARKSMAN\* Herbicide with a non-ionic surfactant at 0.2% v/v (2 L/1000 L) and apply postemergence to corn up to the 5-leaf stage.

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone (yellow foxtail suppression only), plus velvetleaf (most sensitive when small and actively growing), common ragweed and lamb's-quarters. Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS Herbicide. Refer to the MARKSMAN\* Herbicide label for additional application instructions and use precautions.

The tank mix of ULTIM AS Herbicide and MARKSMAN\* Herbicide must not be applied after the 5-leaf stage of corn.

**ULTIM AS HERBICIDE + PARDNER\* HERBICIDE**

ULTIM AS Herbicide may be tank mixed with PARDNER\* to control annual grasses, quackgrass and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS Herbicide and 1.0 L/ha of PARDNER\* Herbicide with a non-ionic surfactant at 0.2% v/v (2 L/1000 L) and apply postemergence to corn up to the 6-leaf stage (4 visible collars or 30 cm in height - leaf extended).

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the PARDNER\* Herbicide label. Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS Herbicide. Refer to the PARDNER\* label for weeds controlled by PARDNER\* Herbicide and consult the label for additional application instructions and use precautions.

Applications of ULTIM AS Herbicide after the 6-leaf stage of corn (30 cm in height - leaf extended) must be delayed until after the 8-leaf stage of corn and before silking, when a height differential can be established between the corn and target weeds. When drop piping, ensure that the crop stand is UNIFORM so that all the spray solution is directed below the canopy to keep the spray out of the corn whorl.

**ULTIM AS HERBICIDE + CALLISTO\* 480SC HERBICIDE**

ULTIM AS Herbicide may be tank mixed with CALLISTO\* 480SC Herbicide to control annual grasses, quackgrass and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS Herbicide and 0.21 L/ha of CALLISTO\* 480SC Herbicide with the non-ionic surfactant, AGRAL\* 90 at 0.2% v/v (2 L/1000 L), and apply postemergence to corn from the 3 to 6-leaf stage (4 visible collars or 30 cm in height - leaf extended).

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the CALLISTO\* 480SC Herbicide label. Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS Herbicide. Refer to the CALLISTO\* 480SC Herbicide label for weeds controlled by CALLISTO\* 480SC Herbicide and consult the label for additional application instructions and use precautions.

The tank mix of ULTIM AS Herbicide and CALLISTO\* 480SC Herbicide must not be applied after the 6-leaf stage (4 visible collars or 30 cm in height - leaf extended) of corn.

**ULTIM AS HERBICIDE + CALLISTO\* 480SC HERBICIDE + ATRAZINE**

ULTIM AS Herbicide may be tank mixed with CALLISTO\* 480SC Herbicide and Atrazine (AATREX\* Liquid 480) to control annual grasses, quackgrass and many broadleaf weeds. Tank mix 33.3 g/ha of ULTIM AS Herbicide, 0.21 L/ha of CALLISTO\* 480SC Herbicide, and Atrazine (0.58 L/ha of AATREX\* Liquid 480) with

the non-ionic surfactant, AGRAL\* 90 at 0.2% v/v (2 L/1000 L), and apply postemergence to corn from the 3 to 6-leaf stage (4 visible collars or 30 cm in height - leaf extended).

This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the CALLISTO\* 480SC Herbicide label for the tank mix of CALLISTO\* 480SC Herbicide + Atrazine (AATREX\* Liquid 480). Refer to the "ULTIM AS Herbicide USED ALONE" section of this label for more application instructions and restrictions on the use of ULTIM AS Herbicide. Refer to the CALLISTO\* 480SC Herbicide label for weeds controlled by the tank mix of CALLISTO\* 480SC Herbicide + Atrazine (AATREX\* Liquid 480) and consult the CALLISTO\* 480SC Herbicide label and Atrazine (AATREX\* Liquid 480) label for additional application instructions and use precautions.

The tank mix of ULTIM AS Herbicide, CALLISTO\* 480SC Herbicide, and Atrazine (AATREX\* Liquid 480) must not be applied after the 6-leaf stage (4 visible collars or 30 cm in height - leaf extended) of corn.

NOTE: Weeds that emerge after application of ULTIM AS Herbicide TANK MIXES will not be controlled. Application should be made when the majority of weeds have emerged.

### MIXING INSTRUCTIONS

Always add components to the spray tank in the following order: a) dry formulations in water soluble packaging, b) other dry materials and finally c) liquid materials.

1. Fill clean tank about 1/4 full with fresh water.
2. Turn on full agitation.
3. Add the proper amount of ULTIM AS Herbicide to the water in the spray tank with the agitator running. Continuous agitation is required to keep the product in suspension.
4. After ULTIM AS Herbicide has been well mixed, add the proper amount (if applicable) of DISTINCT\*, if applicable. Add slowly and agitate until completely dispersed.
5. While the mixture is in suspension add the proper amount (if applicable) of BANVEL\* Herbicide, BANVEL\* II Herbicide, MARKSMAN Herbicide, PARDNER\* Herbicide, CALLISTO\* 480 SC Herbicide, or AATREX\* Liquid 480, to the spray tank with the agitator running.
6. After ULTIM AS Herbicide (and tank mixed herbicide if applicable) have been well mixed and is (are) in suspension add a recommended non-ionic surfactant such as CITOWETT\* PLUS, AGRAL\* 90, or AG-SURF\* at 2 L per 1000 L spray solution (0.2% v/v) or SIDEKICK\* at 2.5 L per 1000 L spray solution (0.25% v/v).
7. If the tank mix partner is DISTINCT\* Herbicide add UAN at 12.5 L per 1000 L of water after the surfactant has been well mixed.
8. Fill the remainder of the spray tank.

On repeat tank loads, ensure that the amount of spray solution left in the tank from the previous load is less than 10% of the volume about to be mixed.

Agitation is required for uniform mixing and application. The optimum water volume for ULTIM AS Herbicide application is 140-190 litres of water per hectare (minimum of 100 litres of water per hectare). Use a spray pressure of 175 - 275 kPa. Flat fan nozzles are recommended. Use 50 mesh filter screens or larger. Use spray preparation of ULTIM AS Herbicide within 24 hours or product degradation may occur resulting in a loss of weed control. Use vigorous agitation to thoroughly disperse spray mixtures that have been allowed to stand in the tank.

NOTE: ULTIM AS Herbicide will degrade in acidic or highly alkaline water. Mix no more than can be used in one day. If spraying is interrupted, thoroughly re-agitate the spray mixture before resuming spraying.

**NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR SPECIAL USE APPLICATIONS:**

The DIRECTIONS FOR USE for this product for the use described below were developed by persons other than Production Agriscience Canada Company and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Production Agriscience Canada Company itself makes no representation or warranty with respect to product performance (efficacy) and crop tolerance (phytotoxicity) of this product when used on the crops listed. Accordingly, the Buyer and User assume all liability arising, and agree to hold Production Agriscience Canada Company harmless from any claims based on efficacy or phytotoxicity in connection with this use.

**FOR USE ON FIELD CORN IN THE PROVINCE OF MANITOBA**

For control of quackgrass, annual grasses and redroot pigweed, apply 33.3 g/ha of ULTIM AS Herbicide per hectare with a recommended non-ionic surfactant (CITOWETT\* PLUS, AGRAL\* 90 or AG-SURF\*) at 2.0 litres per 1,000 litres of spray solution (0.2% v/v). (See "Mixing Instructions" section of the label).

Apply post-emergent to corn at the 1 to 4-leaf stage. Use only on the following corn hybrids:

PIONEER® Brand 39K72  
 PIONEER® Brand 39K73  
 PIONEER® Brand 39W54  
 PIONEER® Brand 39M27

Field corn, winter wheat and spring barley may be planted the year following application of ULTIM AS HERBICIDE. For all other crops, a field bioassay is recommended before planting. ULTIM AS HERBICIDE is more persistent in sandy soils, with low organic matter and pH 7 or higher. For these types of soils, a field bioassay is recommended before planting. Contact your local Production Agriscience Canada Company representative or the Production Agriscience Canada Company Hotline at 1-800-667-3852 for more information.

Apply with ground equipment only. Make only one application per growing season.

**Please refer to the appropriate sections of the ULTIM AS HERBICIDE label booklet for additional use precautions, application and/or mixing instructions.**

**FOR USE ON FIELD CORN IN EASTERN CANADA**

**ULTIM AS HERBICIDE + DISTINCT® HERBICIDE**

Do not graze treated crops; do not cut for hay; do not cut corn for forage or silage within 75 days of application, and do not harvest grain within 120 days of application.

ULTIM AS Herbicide may be tank mixed with DISTINCT\* Herbicide to control annual grasses, quackgrass, many broadleaf weeds, and for season-long control of field horsetail. Tank mix 33.3 grams/ha of ULTIM AS HERBICIDE and one water soluble bag (285 grams)/ha of DISTINCT\* Herbicide in 200 L of water/ha with a non-ionic surfactant at 0.25% v/v (2.5 L/1000 L) plus liquid urea ammonium nitrate (UAN) at 1.25% v/v (12.5 L/1000L) and apply postemergence to corn from the 2- to 6-leaf stage. This tank mixture will control the weeds listed for control by ULTIM AS Herbicide alone, plus the weeds listed on the DISTINCT\* label. Refer to the "ULTIM AS HERBICIDE USED ALONE" section of the main product label for more application instructions, mixing instructions and restrictions on the use of ULTIM

AS. Refer to the DISTINCT\* label for weeds controlled by DISTINCT\* Herbicide and for additional application instructions and use precautions. Apply with ground equipment only. Make only one application per year.

The tank mix of ULTIM AS Herbicide and DISTINCT\* Herbicide should be applied to actively growing field horsetail (less than 5 cm tall). Do not apply after 6-leaf (4 visible collars or 30 cm tall) stage of corn.

#### **FOR USE ON FIELD CORN IN EASTERN CANADA AND MANITOBA**

##### **ULTIM AS HERBICIDE + MARKSMAN\* HERBICIDE**

ULTIM AS Herbicide may be tank mixed with Marksman\* Herbicide for suppression of horsenettle. Tank mix 33.3 grams/ha of ULTIM AS HERBICIDE and 2.5 L/ha of Marksman\* Herbicide in 200 L of water/ha with Agral 90 at 0.2% v/v (2 L/1000 L) and apply postemergence to corn from the 1- to 5-leaf stage. Application should be made when the horsenettle is in the 2-8 leaf stage.

Apply with ground equipment only. Make only one application per year.

Do not apply within 60 days of harvest.

In some cases, tank mixing a pest control product with another pest control product or a fertilizer can result in biological effects that could include, but are not limited to: reduced pest efficacy or increased host crop injury. The user should contact Production Agriscience Canada Company at 1-800-667-3852 for information before mixing any pesticide or fertilizer that is not specifically recommended on this label. The user assumes the risk of losses that result from the use of tank mixes that do not appear on this label or that are not specifically recommended by Production Agriscience Canada Company.

##### **SPRAYER CLEANUP:**

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of ULTIM AS Herbicide as follows:

1. Drain tank; thoroughly hose down the interior surfaces of the tank; then flush tank, boom and hoses with clean water for a minimum of 5 minutes.
2. Fill the tank with clean water while adding one litre of household ammonia (containing a minimum of 3% ammonia) for every 100 litres of water. Flush the hoses, boom and nozzles with the cleaning solution and then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 minutes. Again flush the hoses, boom and nozzles with the cleaning solution and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom.
6. PRIOR to using the sprayer for the next application, flush the tank, boom and hoses for 5 minutes with fresh water.

##### **CAUTION:**

DO NOT mix ammonia with chlorine bleach. Using ammonia with chlorine bleach will release a gas with a musty chlorine odour that may cause eye, nose, throat and lung irritation. DO NOT clean equipment in an enclosed area.

##### **USE OF INSECTICIDES:**

For maximum crop safety, ULTIM AS Herbicide should be applied only to corn which has NOT been treated with a highly systemic organophosphorus soil insecticide, such as LORSBAN\*.

DO NOT tank mix ULTIM AS Herbicide with any organophosphorus insecticide. DO NOT apply a foliar organophosphorus insecticide within 7 days before or after applying ULTIM AS Herbicide.

#### **REPLANTING TO OTHER CROPS:**

ULTIM AS Herbicide is degraded by natural soil processes, and field tests have shown that the following crops may safely be planted at the prescribed interval following corn that has been treated with ULTIM AS Herbicide.

<b>Crop</b>	<b>Replanting Interval</b>
Winter wheat	4 months
Spring barley, Canola, Soybeans, White beans, Red Clover, Sorghum, Field Corn	10 months

For other crops, a field bioassay is recommended before planting. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year.

#### **FIELD BIOASSAY:**

Select a representative area or areas of the field previously treated with ULTIM AS Herbicide to plant your bioassay crop(s). Be sure to consider factors such as size of field, soil texture, drainage and turn-around areas when selecting the site(s) that are most representative of the soil conditions in the field. On large fields, more than one site may be needed in order to obtain reliable results.

Plant the test strips perpendicular to the direction in which the field was sprayed. The strips should be long enough to cross the width of several spray swaths. Large test strip areas are more reliable than small ones.

Use standard tillage and seeding equipment to plant the bioassay. Prepare a seed bed and plant the crops and varieties you want the option of growing the following year. It is important to use the same planting time, conditions, techniques and cultural practices you normally use to plant and grow the bioassay crop(s). Also plant into an adjacent area not treated with ULTIM AS Herbicide to use as a comparison.

As the crop(s) emerges and grows, examine these key points in ULTIM AS Herbicide treated and non-treated areas:

crop stand	root development	rate of growth
plant colour and vigour	Yield	

Allow the bioassay crop(s) to grow to maturity while making your observations. Do not overspray the test strips with herbicides that may damage the bioassay crop(s). If the bioassay indicates that ULTIM AS Herbicide residues are still present, continue cropping only to those crops listed on the label and do not rotate to other crops until bioassay results indicate that susceptible crops are growing normally.

#### **USE PRECAUTIONS:**

Do not apply ULTIM AS Herbicide during periods of intense rainfall or to soils saturated with water. Do not apply directly to standing or running water. Do not apply in areas where surface water from the treatment site can run off to adjacent cropland, either planted or to be planted, or into streams, irrigation water or wells. Applications should only be made when there is no hazard of spray drift contaminating non-target land areas since very small quantities of the ULTIM AS Herbicide spray solution may severely injure susceptible crops during both growing and dormant periods.

As with any herbicide, overlaps or starting, stopping, slowing and turning while spraying may result in crop injury.



Crop injury may result if application is made to corn that has been stressed by abnormally hot, humid or cold weather conditions, frost, low fertility, drought, water saturated soil, compacted soil, previous pesticide applications, disease or insect damage.

Under extreme weather conditions, such as hot, dry weather, excessive moisture, or frost, weed control may be reduced.

Rainfall within 2-4 hours after application of ULTIM AS Herbicide may reduce weed control.

Because corn hybrids differ in their tolerance to herbicides, limit first use of ULTIM AS Herbicide to a small area of each hybrid prior to adoption as a field practice.

Overspray or drift to important wildlife habitats such as ponds, wetlands, streams, woodlots and shelterbelts should be avoided.

Do not apply ULTIM AS Herbicide within 30 days of corn harvest (silage, fodder or grain). Do not graze or feed treated corn forage, silage, fodder or grain for at least 30 days after an application of ULTIM AS Herbicide.

#### **RESISTANCE-MANAGEMENT RECOMMENDATIONS:**

For resistance management, ULTIM AS Herbicide is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to ULTIM AS Herbicide and other Group 2 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 ULTIM AS Herbicide or other Group 2 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- ◆ Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- ◆ Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- ◆ Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- ◆ Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- ◆ Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- ◆ For further information or to report suspected resistance, contact your local Production Agriscience Canada Company representative or the Production Agriscience Canada Company hotline at 1-800-667-3852 for further information.

#### **STORAGE:**

Store product in original container only, away from other pesticides, fertilizer, food or feed to prevent contamination. Not for use or storage in or around the home. Keep container closed. Keep water soluble bags in original outer bag or outer container away from moisture.

**DISPOSAL:**

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

**For MYLAR® bag containers:**

1. Make the empty bag unsuitable for further use.
2. Dispose of the bag in accordance with provincial requirements.

**For recyclable containers:**

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

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

**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 seller warrants that the purchase by the buyer and the use of this product, as such, will not infringe any Canadian patent.

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