BOOKLET LABEL



GROUP

HERBICIDE

UNITY ® 75 WG

WATER SOLUBLE BAG

HERBICIDE

AGRICULTURAL

WATER DISPERSIBLE GRANULAR (WG) HERBICIDE FOR BROADLEAF WEED CONTROL

GUARANTEE: triasulfuron ... 75%

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

REGISTRATION NO. 24596 PEST CONTROL PRODUCTS ACT

The UNITY 75 WG Herbicide inside each portion of this package is in a "Water Soluble Bag" containing 43 grams. One water soluble bag will treat 4 ha (10 acres). Two water soluble bags will treat 8 ha (20 acres).

Do not touch the water soluble bag with wet gloves or it will dissolve. Do not open the water soluble bag. Store above freezing in a dry location. Prolonged storage at temperatures below 0°C may cause the water soluble bag to become brittle.

DO NOT SELL THE SOLUBLE BAG INDIVIDUALLY

Bayer CropScience Suite 100, 3131 114th Avenue SE Calgary, Alberta T2Z 3X2 Telephone: 1-888-283-6847

IN CASE OF SPILLS, POISONING OR FIRE, TELEPHONE EMERGENCY RESPONSE NUMBER COLLECT 1-800-334-7577 (24 HOURS A DAY)

NOTICE TO BUYER:

Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

NOTICE TO USER:

This 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 a control product under unsafe conditions.

FIRST AID FOR UNITY 75 WG Herbicide:

<u>If swallowed</u>, call a physician or a poison control centre IMMEDIATELY. Give the patient 1-2 glasses of water. **DO NOT** induce vomiting. The patient should lie down and remain calm and quiet. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Take the patient immediately to the nearest doctor.

<u>If in eyes</u>, flush repeatedly with clean water for at least 15 minutes. Contact a physician or a poison control centre IMMEDIATELY.

<u>If on skin</u>, remove all contaminated clothing. Wash contaminated skin with soap and plenty of water. If irritation occurs contact a physician or a poison control centre IMMEDIATELY.

<u>If inhaled</u>, remove individual from site of exposure.

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Remove victim to safe, uncontaminated area. If victim has ceased breathing, clear airway and start artificial respiration. Obtain medical attention or contact a poison control centre IMMEDIATELY. Take container or label or the product name and Pest Control Product Registration Number with you to emergency/hospital or physician.

TOXICOLOGICAL INFORMATION:

No specific antidote is known. Apply symptomatic therapy. If a large amount has been ingested, induce emesis or lavage stomach. Five mg/kg of activated charcoal suspension (50 g/400 mL of water) can be given to absorb remaining toxicant.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed. Avoid inhalation of dust or spray mist. Avoid contact with skin, eyes and clothing. Wear long sleeved shirt, long legged pants, impervious gloves and goggles when mixing, loading or during equipment cleanup or repair. Do not eat, drink or smoke while mixing or during application. Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse. Wash thoroughly with soap and water after handling. Handle and apply only as recommended on this label. Avoid application when weather conditions favour drift from treated areas. Avoid contamination of food and feed. Do not contaminate streams, lakes, ponds, wetlands, sloughs, irrigation water, vegetated ditch banks, water used by livestock or for domestic purposes. Do not apply to irrigated land. DO NOT APPLY BY AIR. Do not use liquid fertilizers as a carrier for applications of **UNITY 75 WG Herbicide**.

If this 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., contact 1-866-375-4648 or www.cropro.org/.

STORAGE:

Keep in original packaging during storage. Store above freezing in a dry, well-ventilated area away from other pesticides, fertilizers, food or feed. Prolonged storage at temperatures below 0° C may cause the soluble bag to become brittle.

DISPOSAL:

CONTAINER DISPOSAL:

- 1. Do not reuse this container for any purpose. After the container is empty, make it unsuitable for further use.
- 2. Dispose of the container in accordance with provincial requirements.

DISPOSAL OF UNUSED, UNWANTED PRODUCT:

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 cleanup of spills.

GENERAL INFORMATION:

UNITY 75 WG Herbicide is recommended for post-emergent use on spring wheat, durum wheat and barley. **UNITY 75 WG Herbicide** applied post-emergent can be used in the dark brown, and brown soils of Alberta and Saskatchewan, and the black soil zones of Alberta.

UNITY 75 WG Herbicide must <u>only</u> be used when it is tank-mixed with Unity 280EC <u>plus</u> a recommended surfactant.

UNITY 75 WG Herbicide is absorbed through the leaves of emerged weeds and is rapidly translocated to the weeds' growing points. Thorough coverage of the weeds is essential for effective control. Visual symptoms (discoloration) take 1-3 weeks to appear, depending on the weed species and growing conditions. Death of weeds usually occurs 3-4 weeks after post-emergent application. Adequate control may not be achieved under unfavorable environmental conditions such as drought, flooding, prolonged temperature extremes or insufficient fertility.

The degradation of **UNITY 75 WG Herbicide** in the soil is affected by rainfall, soil temperature, and soil pH (refer to "USE DIRECTIONS").

The use of **UNITY 75 WG Herbicide** is not recommended in spring wheat underseeded to legumes.

Several crops are sensitive to low concentrations of **UNITY 75 WG Herbicide** in the soil. Therefore, careful consideration should be given to crop rotation plans prior to using **UNITY 75 WG Herbicide** (refer to "RECROPPING GUIDELINES FOR POST-EMERGENT USE").

UNITY 75 WG Herbicide is non-corrosive, non-flammable and non-volatile.

DIRECTIONS FOR USE:

<u>Applications of UNITY 75 WG Herbicide must always be tank-mixed</u> with Unity 280EC; <u>plus</u> a recommended surfactant.

USE PRECAUTIONS:

- Do not apply **UNITY 75 WG Herbicide** where its movement through the soil may place it in contact with non-target plants or their roots.
- Do not use **UNITY 75 WG Herbicide** treated soils for gardens, lawns, etc. without consulting the "RECROPPING GUIDELINES" section.
- Overspray or drift to important wildlife habitats such as shelterbelts, wetlands, **sloughs or** dry slough borders, water bodies and woodlots should be avoided. Leave a 15 meter buffer zone between the last spray swath and the edge of any of these habitats.
- Do not apply **UNITY 75 WG Herbicide** under conditions where uniform coverage at label rates cannot be obtained. Avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to prevent crop injury from an excess application.
- Do not allow spray or spray mist to drift onto adjacent sensitive crops or onto land which will be rotated to sensitive crops in the future (see "RECROPPING GUIDELINES" section). Do not drain or flush spray equipment on or near desirable vegetation.
- Tolerance of crops to herbicides is frequently known to differ with varieties and therefore it is recommended that new varieties be seeded to a small treated area which is representative of the field prior to full-scale use.
- Do not use flood jet nozzles or controlled droplet application equipment.
- Read the label for **UNITY 280EC** for appropriated precautions and directions.
- Do not graze the treated crops or cut for hay until 30 days after a post-emergent application of **UNITY 75 WG Herbicide** in a tank mix with **UNITY 280 EC.**

TIMING OF APPLICATION:

CROP 2 leaf stage to just prior to the flag leaf of spring wheat, durum wheat and

barley.

Apply the tank-mix of **UNITY 75 WG Herbicide** post-emergent with **UNITY 280EC** <u>and</u> a recommended surfactant, when the crop is in the two-leaf stage to just prior to the appearance of the flag leaf and before the crop canopy prevents thorough coverage of target weeds.

WEEDS 2 to 4 leaf stage (two pairs of true leaves).

NOTE: Do not apply **UNITY 75 WG Herbicide** post-emergent if rain is expected

within 2 hours of spraying.

WEED SPECTRUM & USE RATES:

UNITY 75 WG Herbicide plus UNITY 280EC TANK-MIXTURE¹

UNITY 75 WG Herbicide at 10.7 g/ha [1 soluble bag treats 4 ha or 10 acres]

[1 package containing 2 water soluble bags treats

8 ha or 20 acres]

plus **UNITY 280EC** at 500 mL/ha [1 jug treats 8 ha or 20 acres]

plus a recommended surfactant at 0.25%v/v [2.5 L for each 1,000 L of spray mixture]

WEEDS CONTROLLED:

annual smartweed (green hempnettle shepherd's purse

¹Do not graze treated cereals or cut for hay until 30 days after an application of a tankmix of **UNITY 75 WG Herbicide** and **UNITY 280 EC.** Do not apply this treatment more than once per season.

smartweed & lady's kochia stinkweed
thumb) lamb's quarters volunteer canola
chickweed redroot pigweed wild buckwheat
cleavers wild mustard
cow cockle
flixweed

MIXING AND SPRAYING INSTRUCTIONS (Ground Application Only):

WATER VOLUME: 100 litres per hectare. Do not use liquid fertilizer as a carrier for

UNITY 75 WG Herbicide applications, because it may prevent

the water soluble bags from dissolving properly.

SPRAY PRESSURE: 275 kPa

SPRAY NOZZLES: Flat Fan with 50 mesh screens or larger.

SURFACTANT: Always use a surfactant when applying UNITY 75 WG

Herbicide post-emergent. Use a recommended non-ionic surfactant such as Agral 90 ®, Ag-Surf ®, Citowett Plus ®, Super Spreader-Sticker ® or Companion® agriculture adjuvant

at 0.25% v/v (2.5 L for each 1,000 L of spray mixture).

FILLING THE TANK:

- 1. Ensure that the sprayer is totally clean.
- 2. Fill the spray tank one quarter full with water. Engage gentle jet agitation. On sprayers with by-pass agitation, the agitation should not be engaged until the water soluble bags are completely dissolved. Otherwise, undissolved bags can become lodged on the main screen.
- 3. Ensure that the agitation system is working properly and that it creates a rippling or rolling action on the water surface.
- 4. Add the appropriate number of **UNITY 75 WG Herbicide** water soluble bags directly into the spray tank. Do not touch water soluble bags with wet gloves. Allow six (6) minutes for complete mixing. Add the required amount of UNITY 280 EC to the spray tank. Allow a further 2 minutes for complete mixing. Longer mixing time may be required due to cold water or if the water soluble bags are brittle.
- 5. Continue agitation while completing the filling of sprayer; then add a recommended surfactant at 0.25% v/v (2.5 L for each 1000 L of water). Ensure **UNITY 75 WG Herbicide** is completely in suspension before spraying.
- 6. Continuous agitation is required to keep **UNITY 75 WG Herbicide** in suspension. Do not allow the spray mixture to stand without agitation.
- 7. Use the spray suspension as soon as it is prepared.

RECROPPING GUIDELINES:

Some crops have shown a high sensitivity to low residues of **UNITY 75 WG Herbicide** in the soil. The risk of injury to rotational crops is affected by the rate and by a combination of factors including soil parameters (i.e. soil type, soil temperature, soil pH), sensitivity of rotational crop species, rainfall levels and the recropping interval. The breakdown process is more rapid with soil conditions of high moisture, high temperature and low pH. Degradation is generally slower with soil conditions of low moisture, low temperature and high pH. The minimum recropping interval is the time between the last application of **UNITY 75 WG Herbicide** and the anticipated date of replanting.

To avoid injury to subsequent crops after an application of recommended rates of **UNITY 75 WG Herbicide**, the following recropping intervals should be observed.

RECROPPING GUIDELINES FOR POST-EMERGENT USE

CROP	MINIMAL INTERVAL (MONTHS)		
	SOIL pH	SOIL pH	SOIL pH
	6.4 OR LESS	6.5 - 7.4	GREATER THAN 7.4
Spring Wheat (Hard	NO RESTRICTIONS	NO RESTRICTIONS	NO RESTRICTIONS
red, Canada Prairie,			
Extra Strong)			
Durum Wheat,	10	10	10
Barley, Oats			
Flax	10	10	22
Peas	10	22	22
Canola	10	22	34
Canary Seed	22	22	22
Mustard	22	22	34
Lentils, Sunflowers,	BIOASSAY	BIOASSAY	BIOASSAY
All Other Crops			

Please refer to "BIOASSAY GUIDELINES" section for information on how to conduct a bioassay.

BIOASSAY GUIDELINES:

Some crops have shown a high sensitivity to low residues of **UNITY 75 WG Herbicide** in the soil. Refer to the "RECROPPING GUIDELINES FOR POST-EMERGENT USE" to determine when a bioassay is recommended.

When conducting a field bioassay, it is very important to select a representative area(s) of the field previously treated with **UNITY 75 WG Herbicide** to plant the test crop(s).

1. Representative Sample:

Ensure that soil parameters such as soil texture, depth of top soil layer, soil pH and drainage of the test area selected are representative of the remainder of the field.

2. Sample Size:

The seeded area of each selected bioassay crop must be large enough to ensure that reliable results are obtained. The seedbed preparations and seeding of the bioassay crop(s) should be done the same way as when the entire field is planted.

3. Other Residual Herbicides:

It is also important that other herbicide products which are known to exert residual activity were not applied to the field between the last application of **UNITY 75 WG Herbicide** and the bioassay testing period. Also, avoid the use of other pesticides during the duration of the bioassay as they may damage the indicator crop(s).

4. Comparisons:

Ideally, an untreated check site in a neighboring field should also be established and monitored for comparison since growing conditions can vary greatly from year to year and may result in erroneous results.

5. Assessment:

The site should be monitored regularly throughout the growing season. Watch for any damage to the crop in terms of thinning, yellowing or stunting. A yield sample should be taken and compared to an adjacent untreated field.

DO NOT ROTATE TO OTHER CROPS UNTIL THE BIOASSAY INDICATES NORMAL GROWTH WITH NO YIELD REDUCTIONS.

<u>Failure</u> to follow the recropping guidelines could result in injury to seeded crops(s).

RESISTANCE-MANAGEMENT RECOMMENDATIONS:

For resistance management, **UNITY 75 WG Herbicide** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **UNITY 75 WG 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 **UNITY 75 WG Herbicide** or other Group 2 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 your local Aventis representative, or call Aventis CropScience Canada Co. toll-free at 1-888-283-6847.

SPRAYER CLEANUP:

To avoid subsequent injury to crops other than cereals, thoroughly clean application equipment after spraying. Ensure that all traces of the product are removed. The following recommendations are provided:

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

<u>CAUTION:</u> Do not use ammonia in conjunction with chlorine bleach as this could result in the release of chlorine gas which can cause severe eye, nose, throat and lung irritation. Do not clean sprayer equipment in an enclosed area.

- ® Unity is a registered trademark of Bayer
- ® Agral 90 is a registered trademark of Syngenta Crop Protection.
- ® Ag-Surf is a registered trademark of Interprovincial Cooperative Ltd.
- ® Citowett Plus is a registered trademark of BASF AG.
- ® Super Spreader-Sticker is a registered trademark of UAP Clean Crop.
- ® Companion is a registered trademark of Rohm & Haas Company. Rohm and Haas Canada Inc. is a registered user
- ® Rustler a registered trademark of Monsanto Canada Inc.
- ® Banvel is a registered trademark of Sandoz Ltd.

BAG LABEL



GROUP

2

HERBICIDE

UNITY ® 75 WG WATER SOLUBLE BAG HERBICIDE

AGRICULTURAL

WATER DISPERSIBLE GRANULAR (WG) HERBICIDE FOR BROADLEAF WEED CONTROL

GUARANTEE: triasulfuron ... 75%

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KEEP OUT OF REACH OF CHILDREN

REGISTRATION NO. 24596 PEST CONTROL PRODUCTS ACT

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DO NOT SELL THE SOLUBLE BAG INDIVIDUALLY

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NET CONTENTS: 43g

DO NOT USE A KNIFE OR OTHER SHARP OBJECT TO OPEN BAG

NOTICE TO BUYER:

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NOTICE TO USER:

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FIRST AID FOR UNITY 75 WG Herbicide:

<u>If swallowed</u>, call a physician or a poison control centre IMMEDIATELY. Give the patient 1-2 glasses of water. **DO NOT** induce vomiting. The patient should lie down and remain calm and quiet. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Take the patient immediately to the nearest doctor.

<u>If in eyes</u>, flush repeatedly with clean water for at least 15 minutes. Contact a physician or a poison control centre IMMEDIATELY.

<u>If on skin</u>, remove all contaminated clothing. Wash contaminated skin with soap and plenty of water. If irritation occurs contact, a physician or a poison control centre IMMEDIATELY.

If inhaled, remove individual from site of exposure.

NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Remove victim to safe, uncontaminated area. If victim has ceased breathing, clear airway and start artificial respiration. Obtain medical attention or contact a poison control centre IMMEDIATELY. Take container or label or the product name and Pest Control Product Registration Number with you to emergency/hospital or physician.

TOXICOLOGICAL INFORMATION:

No specific antidote is known. Apply symptomatic therapy. If a large amount has been ingested, induce emesis or lavage stomach. Five mg/kg of activated charcoal suspension (50 g/400 mL of water) can be given to absorb remaining toxicant.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed. Avoid inhalation of dust or spray mist. Avoid contact with skin, eyes and clothing. Wear long sleeved shirt, long legged pants, impervious gloves and goggles when mixing, loading or during equipment cleanup or repair. Do not eat, drink or smoke while mixing or during application. Remove contaminated clothing immediately after use. Store and wash contaminated clothing separately from household laundry before reuse. Wash thoroughly with soap and water after handling. Handle and apply only as recommended on this label. Avoid application when weather conditions favour drift from treated areas. Avoid contamination of food and feed. Do not contaminate streams, lakes, ponds, wetlands, sloughs, irrigation water, vegetated ditch banks, water used by livestock or for domestic purposes. Do not apply to irrigated land. DO NOT APPLY BY AIR. Do not use liquid fertilizers as a carrier for applications of UNITY 75 WG Herbicide.

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