

**PRINCIPAL DISPLAY PANEL**

<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>
<b>GROUP</b>	<b>4</b>	<b>HERBICIDE</b>

**DB-8454 HERBICIDE**

Wettable Granules

FOR SALE FOR USE ON WHEAT (SPRING AND DURUM) AND SPRING BARLEY IN THE PRAIRIE PROVINCES AND THE PEACE RIVER REGION OF BRITISH COLUMBIA ONLY

AGRICULTURAL

**REGISTRATION NO. 28894 PEST CONTROL PRODUCTS ACT**

**GUARANTEE:** Dicamba (present as sodium salt) 53.8% a.e.  
Thifensulfuron methyl 7.7%  
Tribenuron methyl 3.9%

Warning: Contains the allergens milk and sulfites



CAUTION

POISON

EYE IRRITANT

**NET CONTENTS:** 0.2 – 600.0 Kg

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

E. I. du Pont Canada Company  
Agricultural Products  
Box 2300 Streetsville  
Mississauga, Ontario  
L5M 2J4  
1-800-667-3925

**PRECAUTIONS:**

- KEEP OUT OF REACH OF CHILDREN.
- AVOID BREATHING SPRAY MIST. USE WITH ADEQUATE VENTILATION.
- AVOID CONTACT WITH SKIN, EYES AND CLOTHING. WEAR GOGGLES OR FACE SHIELD, COVERALLS, AND SUITABLE CHEMICAL RESISTANT GLOVES DURING MIXING AND LOADING.
- **TOXIC** TO AQUATIC ORGANISMS, PLANTS AND NON-TARGET TERRESTRIAL PLANTS. OBSERVE BUFFER ZONES SPECIFIED UNDER DIRECTIONS FOR USE.
  
- MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. CAUSES EYE AND SKIN IRRITATION.
- WHEN USING, DO NOT EAT, DRINK OR SMOKE. WASH SKIN THOROUGHLY WITH SOAP AND WATER AFTER HANDLING.
- REMOVE CONTAMINATED CLOTHING IMMEDIATELY AFTER USE. STORE AND WASH CONTAMINATED CLOTHING SEPARATELY FROM HOUSEHOLD LAUNDRY BEFORE REUSE.
- 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.
- DO NOT ENTER OR ALLOW WORKER ENTRY INTO TREATED AREAS FOR 12 HOURS FOLLOWING APPLICATION.
- DO NOT USE HUMAN FLAGGERS.

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

**FIRST AID:**

In case of poisoning, contact a physician or a poison control centre.

**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 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 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.

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2011-April-7, Submission no. 2010-2968

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:**

Dicamba may cause severe irritation to the eyes, and irritation to the skin and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness, loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice. Treat symptomatically.

**STORAGE:**

Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed.

**DISPOSAL:**

If this is a non-returnable container:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.

If this is a refillable container:

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.

If this is a returnable container:

Do not reuse this container for any other purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For all package types:

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.

**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.

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**Directions For Use Booklet**

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FIRST AID:

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**IF IN EYES:**

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**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.

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### **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 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.

Take container or label or the 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:**

Dicamba may cause severe irritation to the eyes, and irritation to the skin and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness, loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice. Treat symptomatically.

### **ENVIRONMENTAL HAZARDS:**

- Overspray or drift to important wildlife habitats such as shelterbelts, wetlands, sloughs or dry slough borders and woodlots should be avoided.
- Do not remove soil from treated fields for use on lawns, in gardens or for back fill.
- Do not contaminate irrigation water. Do not apply to land where tail water will be used to irrigate cropland.
- Do not apply more than 130 g per hectare of DB-8454 Herbicide per crop year.
- **TOXIC** to aquatic organisms, plants and non-target terrestrial plants. Observe buffer zones specified under DIRECTIONS FOR USE.
- To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to: heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted or fine textured such as clay).
- Avoid application of this product when heavy rain is forecast.
- Potential for contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip between the treated area and the edge of the water body.

### **SPRAY DRIFT PRECAUTIONS**

DB-8454 Herbicide may cause injury to desirable trees and plants, particularly flowers, fruit trees, grapes, ornamentals, peas, potatoes, tomatoes, and other broadleaf plants, especially in their developmental and growing stage. Follow these precautions when spraying in the vicinity of sensitive crops:

1. Avoid spraying when winds are towards sensitive crops. Leave an adequate buffer zone between treatment areas and sensitive plants.
2. Use coarse sprays since they are less likely to drift than fine sprays. Select nozzles which minimize amounts of fine spray particles. Keep spray pressure below 150 kPa and the spray volume above 220 L/ha unless otherwise required by the nozzle manufacturer.

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3. Do not spray when the temperature is expected to exceed 30°C.
4. Avoid spraying under conditions of high humidity or fog.
5. 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.
6. DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine or marine habitats.
7. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
8. The use of this chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

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**PRODUCT DESCRIPTION:**

DB-8454 Herbicide is recommended for selective post-emergent control or suppression of broadleaf weeds in wheat (spring and durum) and spring barley, not underseeded to legumes or grasses.

DB-8454 Herbicide contains three active ingredients formulated as dry flowable or water soluble granules. It is non-corrosive, non-flammable and does not freeze. Should product be exposed to freezing temperatures, warm to room temperature prior to use.

DB-8454 Herbicide is to be mixed with water and a recommended adjuvant and applied as a uniform broadcast spray. Recommended adjuvants are: AGRAL90\*, AG-SURF\* and CITOWETT\* PLUS. Apply early postemergence, to the main flush of actively growing broadleaf weeds. APPLY WITH GROUND EQUIPMENT ONLY.

Warm, moist growing conditions promote active weed growth and enhance the activity of DB-8454 Herbicide by allowing maximum foliar uptake and contact activity. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and regrowth may occur. For best results, ensure thorough spray coverage of target weeds. See "DIRECTIONS FOR USE" section of this label for complete use details.

DB-8454 Herbicide stops growth of susceptible weeds rapidly. However, typical symptoms (discolouration) of dying weeds may not be noticeable for 1 to 3 weeks after application, depending upon growing conditions and weed susceptibility. Degree of control and duration of effect are dependent on weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage.

**IMPORTANT INFORMATION: READ BEFORE USING**

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

- Do not apply, 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, recreational grounds or similar areas.
- Prevent drift of spray to desirable plants.
- Do not contaminate any body of water, including irrigation water that may be used on other crops.



- Carefully observe sprayer clean-up instructions, as spray tank residues may damage crops other than spring wheat and spring barley.

**REPLANTING TO OTHER CROPS:**

Any crop may be planted in the year following the use of DB-8454 Herbicide.

**GRAZING/HARVEST RESTRICTIONS:**

Wheat (spring and durum) and spring barley may not be grazed or fed to livestock within 7 days of application.

**VARIETY RESTRICTIONS:**

Limit use of DB-8454 Herbicide to currently licensed varieties of wheat (spring and durum) and spring barley. Consult E. I. du Pont Canada Company prior to use on unlicensed varieties for crop tolerance information. DO NOT USE ON LEGER SPRING BARLEY OR BELVEDERE WHEAT VARIETIES.

**RAINFALL INFORMATION:**

Up to 25 mm of rain beginning 4 hours or more after spraying will not reduce the effectiveness of DB-8454 Herbicide.

**APPLICATION INFORMATION:**

**APPLICATION PRECAUTIONS:**

- Do not apply to irrigated land where tail water will be used to irrigate cropland.
- Overspray or drift to important wildlife habitats such as shelterbelts, wetlands, sloughs or dry slough borders and woodlots should be avoided.
- Apply DB-8454 Herbicide when air temperature is between 10 and 25°C. Do not apply when there is a risk of severe drop in night temperature.
- Do not treat areas where soil penetration or surface washing may bring DB-8454 Herbicide into contact with roots of desirable plants.
- Crop damage may occur if DB-8454 Herbicide is applied at any time other than the recommended crop stage.
- Apply with an adjuvant registered for use with DB-8454 Herbicide. Use only water as a carrier. Other carriers may accelerate breakdown of DB-8454 Herbicide and reduce its effectiveness.
- Do not apply to crops underseeded to legumes or grasses as injury to forage may result.
- Application to crops that are stressed by severe weather conditions, frost, low fertility, water logged soil (soil at or near field capacity), disease or insect damage may result in crop injury. Drought, disease or insect damage following application may also result in crop injury.
- Under certain conditions, such as heavy rainfall, prolonged cool weather, frost or wide fluctuations in day/night temperatures, temporary lightening in crop colour, and occasionally, a slight reduction in crop height may occur.
- Do not apply more than 130 grams/hectare of DB-8454 Herbicide per year.
- 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.

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- DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine or marine habitats.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- The use of this chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

**Note:** Crops growing under stress from adverse environmental conditions such as excess moisture, drought, disease, etc. may suffer a further setback and exhibit more pronounced injury symptoms if DB-8454 Herbicide is applied. However, the crop injury that may occur is usually offset by the weed control obtained.

### DIRECTIONS FOR USE:

#### **APPLICATION INSTRUCTIONS:**

Apply the spray mixture uniformly with properly calibrated ground equipment only. Ensure thorough coverage and a uniform spray pattern. Flat fan nozzles are recommended (minimum 55 litres spray volume per hectare). Use 50 mesh or larger filter screens (metal or nylon). A spray pressure of 210-275 kPa is recommended. Avoid overlapping and shut off spray boom while starting, turning, slowing or stopping to prevent crop injury from over application.

**Field Sprayer Application:** DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the ASAE medium/coarse classification. Boom height must be 60 cm or less above the crop or ground.

**Aerial Application:** DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

#### **AERIAL APPLICATION:**

Apply only by fixed-wing or rotary aircraft equipment, which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label. Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment. Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **Use Precautions:**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

#### **Operator Precautions:**

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted. It is desirable that the pilot have communication

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capabilities at each treatment site at the time of application. The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label. All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

### **Product Specific Precautions:**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3925 or obtain technical advice from the distributor or your provincial agricultural representative.

Application of this specific product must meet and/or conform to the following:

Apply a minimum of 25 L of spray volume per hectare.

Apply a maximum of 50 L of spray volume per hectare.

### **WHEAT (SPRING AND DURUM) and SPRING BARLEY**

<b>DB-8454 Herbicide</b>	
<b>LOCATION:</b> For use in the Prairie provinces and Peace River Region of British Columbia only.	
<b>CROP(S):</b> Wheat (spring and durum) and spring barley only, <b>not underseeded to legumes.</b>	
<b>TIMING:</b> Post-emergent application from the 2-5 leaf stage of spring wheat or spring barley; seedling stage to 8 leaf stage of kochia.	
<b>TANK MIX COMPONENTS AND APPLICATION RATES</b>	
DB-8454 Herbicide	130 grams/hectare
Adjuvants: AGRAL <sup>®</sup> 90, AG-SURF <sup>®</sup> or CITOWETT <sup>®</sup> PLUS	2 litres/1000 litres of spray solution
<b>MIXING:</b> Ensure that DB-8454 Herbicide is completely dissolved, then add adjuvant. Refer to MIXING DIRECTIONS section for general instructions. Use minimum volume of 55 L/ha for ground and 25 to 50 L/ha for aerial application.	
<b>WEEDS CONTROLLED</b>	
<b>Weeds Controlled</b>	Stinkweed
Annual smartweed (green smartweed, lady's thumb)	Tartary buckwheat
Ball mustard	Volunteer rapeseed <sup>2</sup>
Chickweed <sup>1</sup>	Volunteer sunflower
Corn spurry	Wild buckwheat <sup>3</sup>
Cow cockle	Wild mustard
Dandelion (spring or fall rosettes, less than 15 cm in diameter)	
Flixweed	<b>Weeds Suppressed</b>
Groundsel (common)	Canada thistle <sup>4</sup>
Hemp-nettle	Cleavers (1-3 whorls)
Kochia (including Group 2 resistant kochia).	Round leaved mallow <sup>5</sup>
Lamb's-quarters	Scentless chamomile
Narrow-leaved hawk's beard	Sow thistle <sup>4</sup>
Redroot pigweed	Stork's bill (2-6 leaf)
Russian thistle	Toadflax <sup>6</sup>
Shepherd's purse	
<b>NOTES:</b> Do not permit lactating dairy animals to graze fields within 7 days after application. DO NOT harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.	

Notes:

1. Apply when chickweed is small (1-6 leaf) and actively growing, but before crop canopy prevents thorough coverage of weeds. Chickweed emerging after application will not be controlled.

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2. DB-8454 Herbicide alone will not control imazethapyr tolerant canola varieties (e.g. Clearfield\* varieties or other varieties with the Pursuit Smart\* trait)
3. Apply to actively growing wild buckwheat in the cotyledon to 5-leaf stage. Under environmental stress, such as dry weather, control may be reduced. Large plants may continue to grow after treatment.
4. Apply when the majority of thistles have emerged and are actively growing. For best top growth control, apply before bud stage when thistles are no larger than 15 cm in height and before crop canopy prevents thorough coverage of weeds. A single application will effectively inhibit the ability of emerged thistles to compete with the crop. Later emerging thistles will not be controlled.
5. Apply to actively growing round leaved mallow from the 2 - 6 leaf stage (10-12 cm in height). DB-8454 Herbicide will keep mallow stunted, but may not reduce overall populations.
6. Apply to toadflax that is no larger than 15 cm in height. A control program for this weed includes both frequent tillage and chemical application.

**WHEAT (SPRING AND DURUM) ONLY**

<b>DB-8454 Herbicide + HARMONY® GRASS or HARMONY® GRASS 128EC Herbicide</b>	
<b>LOCATION:</b> For use in the Prairie provinces and Peace River Region of British Columbia only.	
<b>CROP:</b> Wheat (spring and durum) only, <b>not underseeded to legumes</b>	
<b>TIMING:</b> Post-emergent application from the 2-5 leaf stage of spring wheat; seedling stage to 8-leaf stage of kochia.	
<b>TANK MIX COMPONENTS AND APPLICATION RATES</b>	
DB-8454 Herbicide	130 grams/hectare
HARMONY® GRASS or HARMONY® GRASS 128EC Herbicide	0.438 L/Ha
<b>MIXING:</b> Ensure that DB-8454 Herbicide is completely dissolved. Reduce agitation, and then add HARMONY® GRASS or HARMONY® GRASS 128EC Herbicide. Refer to MIXING DIRECTIONS section for general instructions. Use minimum volume of 55 L/ha for ground and 30 L/ha for aerial application. Consult the HARMONY® GRASS or HARMONY® GRASS 128EC Herbicide label for additional application instructions and use precautions.	
<b>WEEDS CONTROLLED</b> Ground: Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, green foxtail and wild oats. Aerial: Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, as well as wild oats	
<b>NOTES:</b> Do not permit lactating dairy animals to graze fields within 7 days after application. DO NOT harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.	

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<b>DB-8454 Herbicide + HORIZON* 240 EC NPE_FREE Herbicide</b>	
<b>LOCATION:</b> For use in the Prairie provinces and Peace River Region of British Columbia only.	
<b>CROP:</b> Wheat (spring and durum) only, <b>not underseeded to legumes</b>	
<b>TIMING:</b> Post-emergent application from the 2-5 leaf stage of spring wheat; seedling stage to 8-leaf stage of kochia.	
<b>TANK MIX COMPONENTS AND APPLICATION RATES</b>	
DB-8454 Herbicide	130 grams/hectare
HORIZON* 240 EC NPE FREE	0.230 L/Ha
Adjuvant: SCORE*	0.8 L/Ha
<b>MIXING:</b> Ensure that DB-8454 Herbicide completely dissolved. Reduce agitation, and then add Horizon 240 EC NPE FREE. Then add Score adjuvant. Refer to MIXING DIRECTIONS section for general instructions. Use minimum volume of 55 L/ha for ground and 30 L/ha for aerial applicatoin. Consult the Horizon 240 EC NPE FREE label for additional application instructions and use precautions.	
<b>WEEDS CONTROLLED</b>	
Ground: Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, green foxtail and wild oats. Aerial: Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, as well as wild oats	
<b>NOTES:</b> Do not permit lactating dairy animals to graze fields within 7 days after application. DO NOT harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.	

<b>DB-8454 Herbicide + HORIZON* NG Herbicide</b>	
<b>LOCATION:</b> For use in the Prairie provinces and Peace River Region of British Columbia only.	
<b>CROP:</b> Wheat (spring and durum) only, <b>not underseeded to legumes</b>	
<b>TIMING:</b> Post-emergent application from the 2-5 leaf stage of spring wheat; seedling stage to 8-leaf stage of kochia.	
<b>TANK MIX COMPONENTS AND APPLICATION RATES</b>	
DB-8454 Herbicide	130 grams/hectare
HORIZON* NG Herbicide	0.930 L/Ha
<b>MIXING:</b> Ensure that DB-8454 Herbicide is completely dissolved. Reduce agitation, and then add HORIZON* NG Herbicide. Refer to MIXING DIRECTIONS section for general instructions. Use minimum volume of 55 L/ha for ground and 30 L/ha for aerial application. Consult the HORIZON* NG Herbicide label for additional application instructions and use precautions.	
<b>WEEDS CONTROLLED</b>	
Ground: Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, green foxtail and wild oats.	
Aerial: Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, as well as wild oats	
<b>NOTES:</b> Do not permit lactating dairy animals to graze fields within 7 days after application. DO NOT harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated fields at least 3 days before slaughter.	

<b>DB-8454 HERBICIDE + EVEREST* SOLUPAK* 70 DF or EVEREST* 70 WDG HERBICIDE</b>	
<b>LOCATION:</b> For use in the Prairie provinces and Peace River Region of British Columbia only. <b>Ground Application only. DO NOT APPLY BY AIR.</b>	
<b>CROP(S):</b> Spring wheat (excluding durum) only, <b>not underseeded to legumes.</b>	
<b>TIMING:</b> Post-emergent application from 2 to 6-leaf (2 to 4 leaves on main stem, plus 2 tillers) growth stage of the crop. For wild oats and green foxtail, apply from 1 to 6-leaves (1 to 4 leaves on main stem, plus 2 tillers)	
<b>TANK MIX COMPONENTS AND APPLICATION RATES</b>	
DB-8454 Herbicide	130 grams/hectare
EVEREST* 70 WDG Herbicide OR EVEREST* SOLUPAK 70 DF	43 grams/hectare
Agral * 90 or Agsurf*	0.25% v/v

**MIXING:** Ensure that DB-8454 Herbicide is completely dissolved. Add Everest<sup>®</sup> Solupak 70 DF or Everest<sup>®</sup> 70 WDG Herbicide while continuing agitation until these products are completely mixed. Reduce agitation, and then add adjuvant. Refer to MIXING DIRECTIONS section for general instructions. Consult the Everest<sup>®</sup> Solupak<sup>®</sup> 70 DF or Everest<sup>®</sup> 70 WDG Herbicide labels for additional information on rotational cropping restrictions, application instructions, use precautions and other restrictions.

**WEEDS CONTROLLED**

Broadleaf weeds controlled or suppressed by DB-8454 Herbicide alone, green foxtail and wild oats.

**NOTES:**

Do not permit lactating dairy animals to graze fields within 7 days after application. Do not harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated field at least 3 days before slaughter.

Observe minimum interval to harvest of 80 days after treatment. For black, dark brown and grey-wooded soil zones only, field peas may be grown the year following Everest<sup>®</sup> Solupak<sup>®</sup> 70 DF or Everest<sup>®</sup> 70 WDG Herbicide application in fields where precipitation has been normal or above normal (10 year average) during the growing season, and where organic matter content is above 4% and pH below 7.5. Re-crop spring wheat only in brown soil zone.

**BUFFER ZONES:**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer, inter-row hooded sprayer, spot treatment, soil drench, and soil incorporation.

The buffer zones specified in the tables below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as pastures, rangelands, 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	Use		Buffer Zones (m) Required for Protection of:			
			Aquatic Habitats at Water Depths of:		Terrestrial Habitats	
			Less than 1 m	Greater than 1 m		
Field Sprayer*	Wheat (Spring, Durum) and Spring Barley	Fixed Wing	1	0	15	
Aerial			Rotary Wing	1	0	125
				1	0	100



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

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

#### **MIXING INFORMATION:**

##### **MIXING PRECAUTIONS:**

Do not allow the spray mixture to remain in the tank for more than 24 hours before spraying or the effectiveness may be reduced. If the spray mixture has been allowed to stand in the tank, use vigorous agitation to thoroughly disperse before resuming spraying.

##### **MIXING DIRECTIONS:**

Select a spray volume that will ensure thorough coverage and a uniform spray pattern. Use a minimum of 55 L of spray volume per hectare. If tank mixing with other herbicides, always consult the label of the tank mix partner(s) for minimum spray volume requirements and apply the tank mixture using a water volume recommended for all products.

1. Always start with a clean and empty sprayer tank.
2. Fill the tank to 2/3 full of **clean** water.
3. With the agitator running, add the required amount of DB-8454 Herbicide. Continue to agitate for a minimum of 5 minutes to ensure that DB-8454 Herbicide is **completely** dissolved.
4. Make sure there are no undissolved granules, and then add the required amount of the tank mix partner. If the tank mix partner is an Emulsifiable Concentrate (EC), reduce agitation to avoid inducing an invert emulsion.
5. Add the rest of the water.
6. If required for the tank mixture, add the appropriate adjuvant. If an antifoam agent is required, add last.
7. Refer to the tank mix sections of this booklet for mixing order and other mixing instructions.
8. For repeat tank loads, reduce the material remaining in the tank to 10% of the original volume **or less** before proceeding with step 1, because remaining chemicals may prevent DB-8454 Herbicide granules from completely dissolving or dispersing. If this is not possible, pre-slurry DB-8454 Herbicide in a small amount (5-10 L) of water before adding to the tank.

#### **SPECIAL MIXING INSTRUCTIONS FOR CHEMICAL HANDLERS**

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1. Ensure the chemical handler is clean (rinsed with ammonia).
2. For best results, add DB-8454 Herbicide to the top of the sprayer tank.
3. If a chemical handler is used, make sure that all of the granules of DB-8454 Herbicide are completely dissolved/dispersed and injected into the main tank with agitation before adding other chemicals.
4. Low water volumes in some chemical handlers can cause the water to become saturated with DB-8454 Herbicide, leaving undissolved granules. In that case, rinse the chemical handler with clean water before adding any other chemical.
5. Always dissolve the DB-8454 Herbicide granules with agitation in the main tank before adding a tank mix partner.

NOTE: Follow the clean-out procedure recommended for sprayer tanks for the chemical handler.

### **EQUIPMENT CLEANING INFORMATION:**

#### **CLEANING PRECAUTIONS:**

CAUTION: Do not use ammonia with chlorine bleach. Using ammonia with chlorine bleach will release a gas with a musty chlorine odour, which may cause eye, nose, throat, and lung irritation. Do not clean equipment in an enclosed area.

DO NOT CLEAN SPRAYER NEAR WELL OR WATER SOURCE OR NEAR TO DESIRABLE VEGETATION.

#### **CLEANING INSTRUCTIONS:**

To avoid subsequent injury to crops other than wheat (spring and durum) or spring barley, immediately after spraying and prior to spraying other crops, thoroughly remove all traces of DB-8454 Herbicide from mixing and spray equipment as follows:

1. Drain tank and then fill tank half-full with clean water. Flush tank, boom and hoses by operating the sprayer until the system is purged of the rinse water. If boom is equipped with multiple nozzle bodies, be sure to rotate through all nozzles to ensure clean water reaches all parts of these assemblies.
2. Visually inspect tank to ensure removal of all visible herbicide residues. If necessary, repeat Step 1.
3. Fill the tank with clean water, and then add 1 litre household AMMONIA (containing minimum of 3% ammonia) or equivalent amount of sprayer tank cleaner containing ammonia, per 100 litres of water. Ammonia will not neutralize the herbicide, but helps dissolve dried-on herbicide deposits. If an emulsifiable concentrate has been tank mixed with DB-8454 Herbicide, use of a wetting agent in the cleaning process will assist in removing oily residue that may trap DB-8454 Herbicide on the tank and hoses.
4. Flush solution through boom and hoses, and then add more water to completely fill tank. Allow to sit for 15 minutes with agitation.
5. Drain the tank.
6. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.

7. Flush the sprayer with two tanks full of clean water, flushing water through the hoses and boom.

**RESISTANCE-MANAGEMENT RECOMMENDATIONS:**

For resistance management, DB-8454 Herbicide is a Group 2 plus Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to DB-8454 Herbicide and other Group 2 and/or Group 4 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 used of DB-8454 Herbicide or other Group 2 and Group 4 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 E. I. du Pont Canada Company representative or the E. I. du Pont Canada Company hotline at 1-800-667-3925 for further information.

**STORAGE:**

Store product in original container only, away from other pesticides, fertilizer, food or feed. Not for use or storage in or around the home. Keep container closed

**DISPOSAL:**

If this is a non-returnable container:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.

If this is a refillable container:

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.

If this is a returnable container:

Do not reuse this container for any other purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For all package types:

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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.

**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.

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