

GROUP	9	HERBICIDE
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# Wise Up<sup>®</sup> Herbicide Solution

**Water soluble herbicide for nonselective weed control in CROPLAND SYSTEMS AND IN NON-CROPLAND AREAS.**

**AGRICULTURAL and INDUSTRIAL**

**READ THE LABEL AND BOOKLET BEFORE USING**

**KEEP OUT OF REACH OF CHILDREN**

**ACTIVE INGREDIENT:** Glyphosate, 360 grams acid equivalent per litre present as isopropylamine salt.

**REGISTRATION NO. 29126 PEST CONTROL PRODUCTS ACT**

**CAUTION**



**IRRITANT**

**Net Contents : 10L to 750L**

**MEY Canada Corporation**  
855 2<sup>nd</sup> St. S.W. Suite 3500  
Calgary AB T2P 4J8  
919-338-0775

## **KEEP OUT OF REACH OF CHILDREN**

MAY CAUSE EYE IRRITATION. HARMFUL IF SWALLOWED. Avoid contact with eyes or prolonged contact with skin. For good hygiene practice, wear a long-sleeved shirt, long pants and chemical resistant gloves during mixing, loading, cleanup or repair activities.

## **PHYSICAL OR CHEMICAL HAZARDS**

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers. DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

## **FIRST AID:**

**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 treatment advice.

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

## **TOXICOLOGICAL INFORMATION**

No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

## **AGRICULTURAL CHEMICAL**

Do not ship or store with food, feeds, drugs or clothing.

## **ENVIRONMENTAL HAZARDS**

Avoid direct applications to any body of water. Do not contaminate water by disposal of waste or cleaning of equipment.

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

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.

## **STORAGE**

Avoid contamination of seed, feed, and foodstuffs. Soak up small amounts of spill with absorbent clays.

## **DISPOSAL**

### **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.

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### **Refillable Containers**

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**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.

GROUP

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## **DIRECTIONS FOR USE**

### **GENERAL INFORMATION**

Do not apply this product using aerial spray equipment except under conditions as specified within this label.

Glyphosate is not to be applied using hand-wicking or hand-daubing methods.

Wise Up Herbicide Solution, a water soluble liquid, mixes readily with water for application as a foliage spray for the control or destruction of most herbaceous plants. It may be applied through

most standard industrial or field type sprayers after dilution and thorough mixing with water in accordance with the booklet instructions.

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

Delay application until vegetation has emerged to the stages described for control of such vegetation under the annual and perennial weed control sections of this booklet to provide adequate leaf surface to receive the spray. Unemerged plants arising from underground rhizomes or root stocks of perennials will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity.

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

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

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

Heavy rainfall immediately after application may wash the chemical off the foliage and a repeat treatment may be required. Do not apply if rainfall is forecast for the time of application. Do not mix with any surfactant, pesticide, herbicide oils or any other material other than water unless specified in this booklet. For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

The restricted entry interval is 12 hours after application for all agricultural uses.

As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

## **MIXING AND APPLICATION**

### **PRECAUTIONS**

**ATTENTION: AVOID CONTACT WITH FOLIAGE, GREEN STEMS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.**

**APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.**

**AVOID DRIFT - EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURING DESIRABLE PLANTS AND CROPS.** Do not allow spray mist to drift since even minute quantities of spray can cause severe damage or destruction to nearby crops, plants or other areas on which treatment is not intended, or may cause other unintended consequences. Do not apply when winds are gusty or in excess of 8 km/h or when other conditions, including lesser wind velocities, will allow drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration ,wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

**DO NOT USE IN GREENHOUSES. REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.**

Clean sprayer and parts immediately after using this product by thoroughly flushing with water. Do not contaminate water sources by disposal of wastes or cleaning of equipment.

**NOTE:** Use of this product in any manner not consistent with this booklet may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

## **MIXING AND APPLICATION EQUIPMENT INFORMATION**

### **MIXING**

For ground or industrial type sprayers, fill the spray tank with one-half the required amount of water. Add the proper amount of herbicide (see "Weed Control" sections of this booklet) and mix well before adding the remaining portion of water. Placing the filling hose below the surface of the liquid solution will prevent excessive foaming. Removing hose from tank immediately will avoid back siphoning into water source. Use of mechanical agitators may cause excessive foaming. Bypass lines should terminate at the bottom of the tank.

For use in knapsack sprayers, it is suggested that the proper amount of this herbicide be mixed with water in a larger container. Fill sprayer with the mixed solution.

### **APPLICATION EQUIPMENT**

#### **BOOM EQUIPMENT**

**For control of perennial weeds and woody brush and trees listed on this booklet using conventional boom equipment--** Apply this product in 50 to 300 L of clean water per hectare as a broadcast spray using no more than 275 kPa pressure. See "**Weed Control**" sections of this booklet for rates to control specific weeds.

### **For control of annual weeds listed on this booklet using conventional boom equipment--**

Apply this product in 50 to 100 L of clean water per hectare as a broadcast spray, except as otherwise stated on this label using no more than 275 kPa pressure. See "**Weed Control**" sections of this booklet for rates to control specific weeds.

### **HAND HELD AND HIGH VOLUME EQUIPMENT**

**(use coarse sprays only)**

**For control of weeds and woody brush and trees listed in the "Weed Controlled" section of this label using knapsack sprayers or high volume spraying equipment utilizing handguns or other suitable nozzle arrangements.** Unless otherwise specified, make a 1% solution of this product in water (1 litre of this product in 100 litres of water) and apply to foliage of vegetation to be controlled. For best results, use a 2% solution (2 litres of this product in 100 litres of water) on harder to control perennials such as field bindweed, hemp dog-bane, milkweed and Canada thistle. Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff. Hand gun applications should be properly directed to avoid spraying desirable plants.

### **SELECTIVE EQUIPMENT**

Selective equipment such as **WIPER** and **ROLLER** applicators can be used for weed control in soy and dry beans, orchards, vineyards, cranberries, strawberries and non-crop areas. For information regarding use of this product with selective equipment, refer to "**Selective Equipment**" section of this label.

### **AERIAL EQUIPMENT (NON-CROPLAND USE ONLY)**

Aerial application can only be used for weed control in industrial rights-of-way. Refer to "**Aerial Applications:**

**For industrial rights-of-way only"** section for more information.

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

Airblast or mist blower application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side. For airblast applications, turn off outward pointing nozzles at row ends and outer rows.

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 S572. 1) 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.

Buffer zones:

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment, inter-row hooded sprayer, low-clearance hooded or shielded sprayers that ensure spray drift does not come in contact with orchard crop fruit or foliage, soil drench and soil incorporation.

For application to rights-of-way and for forestry uses, buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies which minimize off-site drift, including meteorological conditions (e.g., wind direction, low wind speed) and spray equipment (e.g., coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified buffer zones for protection of sensitive aquatic habitats.

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

### **Buffer Zones for the Protection of Aquatic and Terrestrial Habitats from Spray Drift of Glyphosate Products Formulated with POEA**

Agricultural, Forestry and Non-Cropland Systems	Maximum Number of Applications	Buffer Zones (metres) Required for the Protection of:		
		Aquatic Habitats	Terrestrial Habitats	
<b>Agricultural crop system and ground boom application method</b>				
Filberts or hazelnut	4	1	1	
Com (glyphosate non-tolerant varieties including grain, silage and ornamental types), sugar beet (glyphosate non-tolerant varieties), strawberry, blueberry highbush and lowbush, walnut, chestnut, Japanese heartnut, Turf grass (prior to establishment or renovation)	2	1	2	
Wheat, barley, oats, soybean (glyphosate non-tolerant varieties), corn-sweet (glyphosate tolerant varieties), canola (glyphosate non-tolerant varieties), peas, dry beans, flax (including low linoleic acid varieties), lentils forage grasses and legume including seed production	3	1	2	
Canola (glyphosate tolerant varieties), soybean (glyphosate tolerant varieties)	4	1	2	
Apple, apricot, cherry (sweet/sour), peaches, pears, plums, grapes	3	1	3	
<b>Non-cropland system and ground boom application method</b>				
Non-crop land and industrial uses: Industrial and rights of way areas, Recreational and public areas	3	1	3*	
<b>Non-cropland system and airblast application method (including mist blower)</b>				
Non-crop land and industrial uses: Industrial and rights of way areas, Recreational and public areas	3	1	30*	
<b>Non-cropland system and aerial application method</b>				
Non-crop land and industrial uses: rights-of way areas only	Fixed wing	3	100	NR
	Rotary wing	3	60	NR

\* Buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility easements, roads, and training grounds and firing ranges on military bases.

NR = Not Required

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

## **WEEDS CONTROLLED**

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

### **ANNUAL WEEDS**

#### **Annual Grasses**

##### **Barnyard Grass**

Echinochloa crusgalli

##### **Blue Grass (annual)**

Poa annua

##### **Crab Grass (large)**

Digitaria sanguinalis

##### **Crab Grass (smooth)**

Digitaria ischaemum

##### **Downy Brome**

Bromus tectorum

##### **Giant Foxtail**

Setaria faberii

##### **Green Foxtail**

Setaria viridis

##### **Persian Darnel**

Lolium persicum

##### **Volunteer Barley**

Hordeum spp.

##### **Volunteer Corn**

Zea Mays

##### **Volunteer Wheat**

Triticum spp.

##### **Wild Oats**

Avena fatua

##### **Yellow Foxtail**

Setaria glauca

#### **Other**

##### **Dodder**

Cuscuta spp.

### **Annual Broadleaf Weeds**

#### **Chickweed**

Stellaria media

#### **Cleavers**

Galium aparine

#### **Cocklebur**

Xanthium strumarium

#### **Corn Spurry**

Spergula arvensis

#### **Cowcockle**

Vaccaria pyramidata

#### **Eastern Black Flowering Nightshade**

Solanum ptycanthum

#### **Prickly Lettuce**

Lactuca scariola

#### **Ragweed (common)**

Ambrosia artemisiifolia

#### **Redroot Pigweed**

Amaranthus retroflexus

#### **Russian Thistle**

Salsola pestifer

#### **Shepherd's Purse**

Capsella bursa-pastoris

#### **Smooth Pigweed**

Amaranthus hybridus

**Fleabane (Canada)**

Erigeron Canadensis

**Flixweed**

Descurania Sophia

**Green Smartweed**

Polygonum scabrum

**Hempnettle**

Galeopsis tetrahit

**Kochia**

Kochia scoparia

**Lady's-Thumb**

Polygonum persicaria

**Lamb's-Quarters (common)**

Chenopodium album

**Narrow-leaved Hawk's Beard**

Crepis tectorum

**Narrow-leaved Vetch**

Vicia angustifolia

**Night-flowering Catchfly**

Silene noctiflora

**PERENNIAL WEEDS**

**Perennial Grasses / Sedges**

**Blue Grass (Canada)**

Poa compressa

**Blue Grass (Kentucky)**

Poa pratensis

**Brome Grass (smooth)**

Bromus inermis

**Sowthistle (annual)**

Sonchus oleraceus

**Stinkweed**

Thlaspi arvense

**Volunteer Canola**

Brassica spp

**Volunteer Flax**

Linaria spp

**Wild Buckwheat**

Polygonum convolvulus

**Wild Mustard**

Sinapsis arvensis

**Wild Tomato**

Solanum triflorum

**Velvetleaf**

Abutilon theophrasti

**Cattail (common)**

Typha latifolia

**Foxtail Barley**

Hordeum jubatum

**Quackgrass**

Agropyron repens

**Yellow Nutsedge**

Cyperus esculentus

## **Perennial Broadleaved Weeds**

### **Alfalfa**

Medicago spp.

### **Cottontop**

Eriophorum chamissonis

### **Curled Dock**

Rumex crispus

### **Dandelion**

Taraxacum officinale

### **Field Bindweed**

Convolvulus arvensis

### **Hemp Dogbane**

Apocynum cannabinum

### **Hoary Cress**

Cardaria draba

### **Knotweed (Japanese)**

Polygonum cuspidatum

### **Milkweed (common)**

Asclepias syriaca

### **Poison Ivy**

Rhus radicans

### **Purple Loosestrife**

Lythrum salicaria

### **Sow Thistle (perennial)**

Sonchus arvensis

### **Thistle (Canada)**

Cirsium arvense

### **Toad Flax**

Linaria vulgaris

### **Wormwood (Absinth)**

Artemisia absinthium

## **Woody Brush and Trees**

### **Alder**

Alnus spp.

### **Birch**

Betula spp.

### **Broadleaved meadowsweet**

Spiraea latifolia

### **Canadian rhododendron**

Rhododendron canadenses

### **Cedar**

Thuja spp.

### **Cherry**

Prunus spp.

### **Douglas Fir**

Pseudotsuga spp.

### **Hemlock**

Tsuga spp.

### **Maple**

Acer spp.

### **Mountain-fly honeysuckle**

Lonicera villosa

### **Pine**

Pinus spp.

### **Poplar**

Populus spp.

### **Raspberry / Salmonberry**

Rubus spp.

### **Sheep laurel**

Kalmia angustifolia

### **Snowberry (Western)**

Symphoricarpos occidentalis

### **Sweet fern**

Comptonia peregrina

### **Willow**

Salix spp.

### **Withrod**

Viburnum cassinoides

## **CROPLAND USES**

### **CROPLAND USES INCLUDE:**

In cropping systems before planting of all crops; in minimum tillage systems; post emergent in glyphosate tolerant soybean, canola, and corn; preharvest applications in wheat, barley, oats, canola (rapeseed), flax (including low linolenic acid varieties), peas, lentils, dry beans, soybeans and forages; in pasture renovation; in forage, legume and grass establishments; in tree crops including apple, pear, cherry, plum, peach, apricot, filbert, hazelnut, walnut, chestnut; in grapes,

cranberries, blueberries and strawberry; in sugar beets; in tree plantings; and grasses for seed production.

**ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION PRECAUTIONS PRIOR TO SPECIFIC APPLICATION INFORMATION IN ANY LABEL SECTION.**

**ANNUAL WEED CONTROL**

The following tables provide rates and specific application instructions for control of the annual weeds listed.

**ANNUAL WEED CONTROL WITH WISE UP HERBICIDE SOLUTION**

RATE L/HA	GROWTH STAGE	WEEDS CONTROLLED	COMMENTS (Apply in 50 - 100 L/ha water)
0.75	weeds up to 8 cm in height	wild oats, green foxtail, volunteer barley, volunteer wheat  volunteer canola (rapeseed), wild mustard, lady's-thumb, stinkweed	. for wild oats apply at 1 - 3 leaf stage  . add 350 mL of a surfactant registered for use such as Agral® 90, Ag Surf®, or Companion™  . for heavy wild oat infestations use 1.0 L/ha rate.
1.0	weeds 8 cm to 15 cm in height	all annual grasses listed above all annual broadleaved weeds listed above plus flixweed† and kochia†	. add 350 mL of surfactant registered for use as listed above  † suppression only. Refer to higher rates of this table or tank mix table for control options.
1.25-1.9	weeds up to 15 cm in height	all annual grasses listed above plus downey brome, giant foxtail, and persian darnel all annual broadleaved weeds listed above plus lamb's quarters, redroot pigweed, hempnettle, flixweed, Russian thistle, volunteer flax, common ragweed†, Canada fleabane†, wild buckwheat††, narrowleaved	. no surfactant required . for tank mix weed control options see annual weed control with tank mix table  † DO NOT use these rates on plants greater than 8 cm in height  †† for 3 - 4 leaf stage use 1.9 L/ha rate  ††† for weeds 8 cm to 15 cm in height use 1.9 L/ha rate

		hawk's beard†††,	
2.25	weeds up to 15 cm in height	all annual grasses listed above plus crab grass and annual blue grass. all annual broadleaved weeds listed above plus kochia, prickly lettuce, shepherd's purse, annual sow thistle, and narrow-leaved vetch	. for additional annual broadleaved weed control options, refer to tank mix table.
3.5	weeds over 15 cm in height	all annual grasses and broadleaved weeds listed above	. for additional annual broadleaved weed control options refer to tank mix table.

Agral® is a registered trademark of Imperial Chemical Industries PLC, England.

Ag Surf® is a registered trademark of Interprovincial Co-operatives Ltd.

Companion™ is a trademark of Dow AgroSciences LLC.

**NOTE:** For spot treatment, 0.75 - 3.5 L/ha is approximately equivalent to 8 - 35 mL/100 m<sup>2</sup>, respectively.

## ANNUAL WEED CONTROL WITH WISE UP HERBICIDE SOLUTION TANK MIXTURES

### FOR SUMMERFALLOW & MINIMUM TILLAGE SYSTEMS

TANK MIXTURES	RATE L/HA	WEEDS CONTROLLED*	COMMENTS (Apply in 50-100L/ha water; add 350mL/ha of surfactant - see list in "Addition of Surfactant" section)
Wise Up Herbicide Solution + Banvel®	0.75 -1.0 + 0.29	volunteer cereal, wild oats, green foxtail, volunteer canola (rapeseed), wild mustard, flixweed†, lamb's quarters, lady's thumb, stinkweed, kochia, Russian thistle, cow cockle, redroot pigweed††, wild buckwheat††.	This tank mix is registered for <b>summerfallow use only</b> . Weeds should be less than 15 cm tall and actively growing for best results. Use higher rate if weeds are beyond 8 cm in height †Wise Up Herbicide Solution applied at 1.0 L/ha rate only. ††Suppression only. See other tank mixtures for control options.

Wise Up Herbicide Solution + Pardner®	0.75 - 1.0 + 1.25	volunteer cereals, green foxtail, volunteer canola (rapeseed), wild mustard, lady's thumb, stinkweed, wild buckwheat† redroot pigweed††, kochia††, wild oats††	This tank mix is registered <b>only for use in summerfallow, and prior to wheat, oats and barley in minimum tillage systems.</b> Weeds should be less than 15 cm tall and actively growing for best results. Use higher rate if weeds are beyond 8 cm in height † use Wise Up Herbicide Solution at 1.0 L/ha rate only for wild buckwheat control. ††1.0 L rate, suppression only. See other tank mixtures for control options.
Wise Up Herbicide Solution + 2,4-D#	0.75 - 1.0 + 1.2	volunteer cereals, wild oats† and green foxtail† volunteer canola (rapeseed), wild mustard, flixweed, redroot pigweed, lady's thumb, stinkweed, kochia. lamb's quarters††, Russian thistle††	This tank mix is registered for <b>summerfallow use only.</b> Weeds should be less than 15 cm tall and actively growing for best results. Use higher rate if weeds are beyond 8 cm in height †use Wise Up Herbicide Solution at 1.0 L/ha rate only for wild oat and green foxtail control. ††suppression only. See other tank mixtures for control options.

.. For foxtail barley suppression, refer to "Annual Weed Control" table.

# 0.56 kg ai/ha of 2,4-D. Adjust rates accordingly for other 2,4-D formulations. Use only low volatile ester or amine formulations of 2,4-D.

® Banvel is a registered trademark of BASF Ltd

® Pardner is a registered trademark of Rhone-Poulenc

®Dual is a registered trademark of Novartis Crop Protection Canada Inc.

#### NOTE:

**Addition of Surfactant** - All Wise Up Herbicide Solution tank mixtures for annual weed control require the addition of a surfactant registered for use such as Agral 90, Ag Surf, or Companion. Surfactant should be added at a rate of 350 mL per hectare, in 50-100 L of clean water.

#### Additional Important Information for Annual Weed Control

Allow at least 1 day after treatment before tillage

Annual weeds generally will continue to germinate from seed throughout the growing season. Repeat treatments may be necessary to control later germinating weeds, in some situations.

For additional information and precautions, refer to the "General Information" and "Mixing and Application" sections of this label.

#### WEED CONTROL IN GLYPHOSATE TOLERANT CANOLA

**WARNING: APPLY WISE UP HERBICIDE SOLUTION ON GLYPHOSATE TOLERANT CANOLA VARIETIES ONLY.**

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

- For additional information and precautions refer to the “General Information” and “Mixing and Application” sections of the Wise Up Herbicide Solution label.
- Apply Wise Up Herbicide Solution in glyphosate tolerant canola only as directed in the following weed control table.
- Some short-term, visual yellowing may occur when Wise Up Herbicide Solution is applied at the late application 4 to 6 leaf stage of the crop. This effect is temporary and will not influence crop growth, maturity or yield.

**DO NOT APPLY BY AIR**

The following table describes the rate and specific application instructions for control of annual and perennial weeds in glyphosate tolerant canola varieties.

**WEED CONTROL IN GLYPHOSATE TOLERANT CANOLA**

Rate (L/ha)	Growth Stage Of Crop	Weeds Controlled	Comments Apply in 50 - 100 L/ha water)
0.825 - 1.25	0 to 6 leaf	<p>Annual Grasses wild oats, green foxtail, volunteer barley, volunteer wheat</p> <p>Annual Broadleaves stinkweed, redroot pigweed, wild mustard, Russian thistle, lamb's-quarters, non-glyphosate tolerant volunteer canola (rapeseed), Hempnettle, lady's thumb, kochia, chickweed, corn spurry, wild tomato, cleavers†, wild buckwheat†, shepherd's purse†, cow cockle†, night-flowering catchfly†, smartweed†</p>	<ul style="list-style-type: none"> <li>• No additional surfactant is required</li> <li>• Repeat applications may be required if a second flush of weeds germinates prior to canopy closure.</li> </ul> <p>Ensure the crop has not advanced beyond the recommended growth stage.</p> <p>† Use the 1.25 L/ha rate for control of these weeds at all crop growth stages.</p> <p>The lower rate can be used for control of shepherd's purse, cow cockle and night-flowering catchfly at the 1-3 leaf stage of the crop, or for control of smartweed at the 4-6 leaf stage.</p>

**WEED CONTROL IN GLYPHOSATE TOLERANT SOYBEAN**

**WARNING: APPLY WISE UP HERBICIDE SOLUTION ON GLYPHOSATE TOLERANT SOYBEAN VARIETIES ONLY.**

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

DO NOT APPLY BY AIR

**WEED CONTROL IN GLYPHOSATE TOLERANT SOYBEAN**

Rate (L/ha)	Growth Stage of Crop	Weeds Controlled†	Comments (use 100-200 L/ha water volumes)
2.5	First trifoliolate leaf stage through to bud.	velvetleaf, common ragweed, common lambsquarters, redroot pigweed, smooth pigweed, cocklebur, green smartweed, ladysthumb, Pennsylvania smartweed, eastern black flowering nightshade, wild mustard, wild buckwheat, foxtail (green, yellow, giant), barnyard grass, crabgrass (smooth, large), quackgrass	• A second application may be used for late weed flushes emerging after the initial treatment.

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

**PERENNIAL WEED CONTROL**

**ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION SECTIONS PRIOR TO SPECIFIC APPLICATION INFORMATION IN ANY LABEL SECTION.**

When applied as recommended under the conditions described, this product will control the perennial weeds listed in the following table:

WEED	APPLICATION			COMMENTS
	GROWTH STAGE	Rate (L/ha)	WATER VOLUME (L/ha)	
<b>Quackgrass</b> (control, light to moderate infestations)	3 to 4 green leaves or more	2.5	50 - 300	. Apply in clean water using flat fan nozzles. . Allow 3 or more days after treatment before tillage. . Refer to " <b>Quackgrass</b> " notes for more information.

				<ul style="list-style-type: none"> <li>. For higher water volumes (ie. 150 - 300 L/ha) an approved surfactant must be added at 0.5 litres per 100 litres of clean water (0.5% v/v). Refer to list of surfactants. See also below.</li> </ul>
<b>Quackgrass</b> (long term control, heavy infestations, high water volumes)	3 to 4 green leaves or more	2.5 - 7.0	50 - 300	<ul style="list-style-type: none"> <li>Allow 3 or more days after treatment before tillage.</li> <li>. Rates higher than 2.5 L/ha will provide more consistent, longer term control, especially with heavier infestations and/or higher water volumes (ie 150-300 L/ha)</li> <li>. Refer to "Quackgrass" notes for more information.</li> </ul>
<b>Canada Thistle</b>	rosette stage (summerfallow)	2.5	50 - 100	<ul style="list-style-type: none"> <li>. Apply in clean water using flat fan nozzles.</li> <li>. Allow 10 or more days after treatment before tillage.</li> <li>. Refer to notes in "Canada Thistle" section for more information.</li> </ul>
<b>Canada Thistle</b>	bud stage or beyond	4.75 - 7	100 - 300	<ul style="list-style-type: none"> <li>. Allow 5 or more days after treatment before tillage.</li> </ul>
<b>Field Bindweed</b>	full bloom or beyond	7 - 12	100 - 300	<ul style="list-style-type: none"> <li>. Allow 7 or more days after treatment before tillage.</li> </ul>
<b>Common Milkweed</b> †	bud to full bloom (preharvest)	2.5	50 - 100	<ul style="list-style-type: none"> <li>. See preharvest application section</li> <li>. Allow 7 or more days after treatment before tillage.</li> <li>. Reduced control may occur after full bloom.</li> <li>. Milkweed may not all be in the correct stage, therefore, repeat treatments may be required.</li> </ul>
	bud to full bloom	12	100 - 300	
<b>Toadflax</b>	Vegetative Stage (summerfallow) Bud to Full Bloom (preharvest)	2.5	50-100	<ul style="list-style-type: none"> <li>. Apply in clean water using flat fan nozzles</li> <li>. Allow 7 or more days after treatment before tillage in summerfallow</li> <li>. For more information, see summerfallow control, or preharvest control</li> </ul>
<b>Alfalfa</b>	Early bud to full bloom stage.	3.7 - 5.0	50 - 300	<ul style="list-style-type: none"> <li>Allow 5 or more days after treatment before tillage. Use the higher rates when alfalfa</li> </ul>

	Fall applications only			populations are high or when heavy grass infestations are also present. For spring applications and control in minimum tillage systems using a 2,4-D tank mix, see Alfalfa Control with 2,4-D Tank Mix Section
<b>Dandelion</b>	< 15 cm	2.5	50 - 100	. Allow 3 or more days after treatment before tillage for all rates.
	> 15 cm	3.7 - 5.0	50 - 300	. Use the higher rate when infestations are heavy. . Refer to notes in Dandelion Section for more information. . Allow 7 or more days after treatment before tillage. For more information, see preharvest control section.
	Rosette to full Bloom (preharvest)	2.5	50 - 100	
<b>Other Perennials</b> (see perennial weeds listing)	early heading or early bud stage	7 - 12	100 - 300	. Allow 7 or more days after application before tillage.

†**NOTE:** For spot treatment, mix 120 mL of product in 5L clean water per 100 m<sup>2</sup>. (2.5 - 12 L/ha is approximately equivalent to 25 - 120 mL/100 m<sup>2</sup>, respectively).

## **SPECIAL NOTES FOR PERENNIAL WEED CONTROL**

### **QUACKGRASS**

For **season-long control on fall tilled ground:** Apply 2.5L/ha of this product in spring prior to seeding. Apply in 50 to 100 L/ha of clean water as described in the preceding table. Delay application until the majority of quackgrass plants have 4-5 green leaves. This stage usually occurs 1 to 4 weeks later on fall tilled ground than on undisturbed ground. Reduced control may result on ground tilled deeper than 15 cm.

#### **NOTE:**

This treatment will provide season-long control of quackgrass on fall tilled ground. Reduced control will be experienced versus this product on non-fall tilled ground. Repeat treatments may be necessary.

**Applications on forages** should be followed by tillage 3 days or later and should be made when good growing conditions exist.

**If a frost has occurred**, wait several days to determine if the quackgrass has recovered. Quackgrass can be treated after a mild frost provided there are 3 to 4 green leaves actively growing at the time of application. Do not apply after the first damaging frost in the fall.

**Surfactants:**

The following is a list of approved surfactants for use with Wise Up Herbicide Solution for control of quackgrass:

Agral 90  
Ag Surf  
Companion

**Always refer to surfactant label for specific instructions regarding use of that product.**

**CANADA THISTLE**

**Control of Canada Thistle at the rosette stage:** To ensure the proper timing of application the following steps must be followed:

1. Conduct summerfallow tillage as usual and perform the last tillage operation between July 15th and August 1.
2. Allow the thistles to regrow for a minimum of 5 weeks until they are a minimum of 15cm in diameter and in the rosette stage of growth.

**NOTE: Canada thistle can be treated after a mild frost** provided the leaves are still green and actively growing at the time of application. Do not apply after the first damaging frost in the fall.

**Wise Up Herbicide Solution plus Banvel Tank Mixtures**

For control of Canada thistle (and perennial sow thistle) in summerfallow or in post-harvest stubble, apply 1.7 L/ha Wise Up Herbicide Solution plus 1.25 L/ha Banvel in 100-200 L/ha of clean water. In addition, add 350 mL/ha of a non-ionic surfactant registered for use with this product, such as Agral 90, Ag Surf, or Companion.

For best results in summerfallow, cultivate in the spring and apply when the majority of thistles are 15 cm to 25 cm tall and before the bud stage. Cultivate 3 weeks after application.

In post harvest stubble, apply this tank mixture to actively growing thistles at least 2 weeks prior to a killing frost.

**NOTE:**

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

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

**TOADFLAX**

**Control of Toadflax in a Summerfallow Vegetative Stage**

To ensure the proper timing of application, the following steps must be followed:

1. Conduct summerfallow tillage as usual and perform the last tillage operation between July 10-21.

2. Allow toadflax to regrow for a minimum of 4-5 weeks until they are minimum of 15 cm tall and at a lush green vegetative stage.

Note: Toadflax can be treated after a mild frost provided the leaves are still green and actively growing at the time of application. Do not apply after the first damaging frost.

### **DANDELION**

Applications should be made up to and including bloom for best results. Follow-up control measures should be used to manage new dandelions germinating from seed to maintain control throughout the season.

### **ALFALFA CONTROL WITH 2,4-D TANK MIX:**

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

For fall control of established stands of alfalfa, apply 2.5 - 5.0 L/ha Wise Up Herbicide Solution and 1.2 - 2.4 L/ha of any 500 g/L 2,4-D amine or low volatile ester formulation in 100-200 L water/ha. (Adjust product rates accordingly for other 2,4-D formulations).

For spring applications, use only the low rate of 2,4-D (i.e. 1.2 L/ha) and 2.5 - 5.0 L/ha Wise Up Herbicide Solution. Only cereal crops not underseeded to legumes may be planted following spring applications of this tank mix, and a 14 day interval between application and planting is required.

Use the higher Wise Up Herbicide Solution rates when perennial grasses are prevalent

### **ALL PERENNIAL WEEDS**

**Weed Stages:** Weeds must be at the proper stage for effective control. Refer to "**Perennial Weed Control with Wise Up Herbicide Solution**"

**Nozzle Type:** For best results with conventional boom equipment apply this product with 50 to 300 L/ha of clean water using flat fan nozzles and no more pressure than 275 kPa.

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

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

**Tillage Effects:** Fall or spring tillage prior to spring applications and tillage between harvesting and fall applications will reduce the effectiveness on perennial weeds. Follow-up tillage after application should be delayed 5-7 days for best results (see Weed Control Table for specific tillage interval for each weed).

**Rainfall Effects:** Heavy rainfall immediately after application may wash the chemical off the foliage and a repeat treatment may be required. Do not apply if rainfall is forecast for the time of application.

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

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

## **CROPLAND SITUATIONS**

### **ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION SECTIONS PRIOR TO SPECIFIC APPLICATION INFORMATION IN ANY LABEL SECTION.**

This product can be applied as a broadcast spray or spot treatment prior to planting all crops, post harvest to annual crops, preharvest in wheat, barley, oats, canola (rapeseed), flax (including low linolenic acid varieties), lentils, peas, soybeans, dry beans and forages, and in summerfallow. It may also be applied as a broadcast spray in glyphosate tolerant canola, soybean or corn (refer to sections on Weed Control in Glyphosate Tolerant Canola or Soybean). It can also be applied as a directed spray in orchards, vineyards, blueberries and strawberry, and using selective equipment in soy and dry beans, orchards, vineyards, cranberries and strawberry (refer to specific sections below for more information). **For specific instructions on weed control in the following cropping situations, always refer to the Annual and Perennial Weed Control sections for more information.**

#### **Prior to Planting - All Crops**

This product may be applied prior to planting all crops for control of emerged weeds listed on this label. Ensure weeds are at the desired stage at the time of application. This product does not provide pre-emergent weed control and newly germinating weeds may be a problem in the crop. **APPLY BEFORE SEEDING OR TRANSPLANTING.**

#### **Post Harvest Stubble Treatment**

This product may be applied in the fall as a postharvest stubble treatment for control of perennial weeds such as quackgrass and Canada thistle. Allow weeds to regrow to the desired stage (20-25 cm tall for quackgrass and Canada thistle) before application and ensure they have a high proportion of green coloration. Straw should be removed or evenly spread to allow for proper regrowth and spray coverage. Heavy frosts prior to application may decrease control.

#### **Spot Treatment (In-Crop)**

This product can be applied as an in-crop spot treatment in barley, corn, oats, soybeans, wheat, strawberry, blueberry, forage grasses and legumes including seed production. Applications should be made using the same rates and at the same growth stages as listed in the weed control tables or use a 1% solution for annual weeds and quackgrass and a 2% solution for other perennial weeds (a 1% solution equals 1 litre Wise Up Herbicide Solution in 100 litres of spray solution). One or two per cent solutions should be applied to wet, but not run-off. Applications can be made using a boom sprayer, hose and handgun, or hand sprayer in accordance with instructions in the "Application Equipment" section.

Applications can be made up to heading of small grains, initial pod set on soy and dry beans, silking of corn and emergence of seed heads. The crop in the treated area will be killed. Take care to avoid drift for the same reason. **DO NOT APPLY IF CROP GROWTH HAS ADVANCED BEYOND SEED SET. ALLOW 3 TO 5 DAYS FOR WISE UP HERBICIDE SOLUTION TO TRANSLOCATE INTO ALL PLANT PARTS BEFORE GRAZING OR HARVESTING TREATED AREAS IN FORAGES.**

#### **Summerfallow Treatment**

This product, or labelled tank mixtures, may be applied in summerfallow to control weeds listed on this label. Ensure weeds are at the desired growth stage and actively growing at application for best results. Reduced control may result if weeds are drought stressed. Weeds will continue to germinate from seed throughout the growing season. Repeat treatments may be necessary to control later germinating weeds.

### **Minimum and Zero Tillage Cropping Systems (All Field Crops, including cereals, oilseeds, pulses, forages, corn and potatoes)**

This product may be applied prior to seeding or after seeding, but before crop emergence for control of emerged weeds in minimum and zero tillage cropping systems for all field crops. Applications made too far in advance of seeding may allow weeds to emerge between application and crop emergence, as this product does not provide residual weed control.

### **Minimum and Zero Tillage Tank Mixtures**

**Wise Up Herbicide Solution plus bromoxynil (Pardner)** can be applied prior to seeding or after seeding, but before crop emergence in **wheat, barley and oats**. Refer to Annual Weed Control with Wise Up Herbicide Solution Tank Mixtures table for information.

**Wise Up Herbicide Solution plus Pursuit®** can be applied prior to, or after, seeding, but before crop emergence in soybeans. Wise Up Herbicide Solution will control emerged weeds listed on this label when applied as directed (refer to Annual and Perennial Weed Control sections). Pursuit will control weeds germinating from seed. Add the recommended rates of both products in 100 L of water/ha, following the instructions on the Pursuit herbicide label.

**ALWAYS REFER TO THE PURSUIT LABEL FOR FURTHER INFORMATION ON WEEDS CONTROLLED, APPLICATION DIRECTIONS, AND USE PRECAUTIONS. ONLY SOYBEANS, FIELD CORN, SPRING BARLEY, SPRING WHEAT AND WINTER WHEAT MAY BE PLANTED THE SEASON FOLLOWING A PURSUIT APPLICATION. WINTER WHEAT MAY BE PLANTED THE SAME YEAR AS A PURSUIT APPLICATION TO SOYBEANS, BUT NOT EARLIER THAN 120 DAYS AFTER THE APPLICATION.**

### **DO NOT APPLY AFTER CROP EMERGENCE**

® Pursuit is a registered trademark of Cyanamid Canada Inc.

### **Forage Legumes and Grasses**

This product may be applied for control of emerged weeds prior to emergence of forage legumes and grasses. If the forages are to be under-seeded with a cover crop, this product must be applied prior to planting the cover crop.

### **Pasture Renovation**

Use this product to control or suppress existing vegetation for zero-tillage seeding of legumes into established sod for pasture renovation. Delay spraying until weed growth is at least 20 cm in height and a maximum number of seedlings or shoots have emerged. Application can be made immediately before, during or after seeding, but before crop emergence.

### **Forage Seed Production**

For spot treatment control of perennial weed problems such as quackgrass and Canada thistle in seed fields, apply as directed to vegetation that is at least 20 to 25 cm in height but before emergence of seed head. The crop in the treated areas will be killed. Take care to avoid drift outside target area for the same reason.

### **PRE-HARVEST CONTROL OF QUACKGRASS, CANADA THISTLE, MILKWEED, TOADFLAX and DANDELION; SEASON-LONG CONTROL OF PERENNIAL SOW THISTLE, AND HARVEST MANAGEMENT**

For control of quackgrass, Canada thistle, common milkweed, toadflax and dandelion; and season-long control of perennial sow thistle, Wise Up Herbicide Solution can be applied prior to harvest of wheat, barley (including malting barley), oats, canola (rapeseed), flax (including low linolenic acid varieties), lentils, peas, dry beans, soybeans and forages. DO NOT apply to crops if grown for seed production.

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

Wise Up Herbicide Solution should be applied pre-harvest at 2.5 L/ha in 50 to 100 L/ha of clean water, by ground application only. Apply only when the crop has 30% or less grain moisture content. This stage typically occurs 7 to 14 days before harvest. For forage crops, apply this product at 2.5 - 5.0 L/ha 3-7 days prior to the last cut before rotation or forage renovation. Consult the table "Guidelines for Timing of Preharvest Applications" for visual indicators of this stage in each crop. For the best weed control results quackgrass should be actively growing and have at least 4 to 5 green leaves. Canada thistle and perennial sow thistle should be actively growing and at or beyond the bud stage for best results. Common milkweed should be at the bud to bloom stage and actively growing for best results. Applications for weed control (not for harvest management) must be made at the correct stage of both weed and crop growth.

Apply only during the period 7-14 days (or 3-7 days for forage applications) before harvest to ensure best weed control and to maximize harvest management benefits. Earlier application may reduce crop yield and/or quality, and may lead to excess glyphosate residues in the crop. Overspray or drift to important wildlife habitats such as bodies of water, wetlands (eg. sloughs), shelterbelts, woodlots and other cover on the edges of fields frequented by wildlife, should be avoided. Leave a 15 meter buffer zone between the last spray swath and the edge of any of these habitats.

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

**DO NOT APPLY BY AIRCRAFT**

### **GUIDELINES FOR TIMING OF PREHARVEST APPLICATIONS**

<b>CROP(S)</b>	<b>PERCENT GRAIN MOISTURE</b>	<b>VISUAL SYMPTOMS</b>
WHEAT/BARLEY/ OATS	Less than 30	Hard dough stage; a thumbnail impression remains on seed.
CANOLA	Less than 30	Pods are green to yellow; most seeds are yellow to brown.
FLAX (INCLUDING LOW LINOLENIC ACID VARIETIES)	Less than 30	Majority (75%-80%) of bolls are brown.
PEAS	Less than 30	Majority (75%-80%) of pods are brown.
LENTILS	Less than 30	Lowermost pods (bottom 15%) are brown and seeds rattle.
DRY BEANS	Less than 30	Stems are green to brown in colour; pods are mature (yellow to brown in colour); 80%-90% leaf drop (original leaves).
SOYBEANS	Less than 30	Stems are green to brown in colour; pod tissue is dry and brown in appearance; 80%-90% leaf drop.
FORAGES	Not applicable	Normal stage for forage harvesting.

## Tree Plantings

### Shelterbelts and Nursery Stock (Woody Ornamentals)

This product may be used to control listed annual or perennial weeds prior to planting, or as a post directed spray in established nurseries or shelterbelts of the following species:

#### Deciduous

Ash - Fraxinus spp.  
Caragana - Caragan spp.  
Cherry - Prunus spp.  
Elm - Ulmus spp.  
Lilac - Syringa spp.  
Maple - Acer spp.  
Mountain Ash - Sorbus spp.  
Poplar - Populus spp.  
Russian Olive - Elaeagnus spp.  
Willow - Salix spp.

#### Coniferous

Fir - Abies spp.  
Juniper - Junipus spp.  
Pine - Pinus spp.  
Spruce - Picea spp.  
Yew - Taxus spp.

**NOTE:** This product is not recommended for use as an over-the-top broadcast spray in forest tree nurseries or in Christmas tree plantations. Application in such sites should be limited to directed sprays. DO NOT treat Christmas tree plantations in the year of anticipated harvest.

### TREE, VINE and BERRY CROPS

This product is recommended for annual and perennial weed control in established vineyards or orchards, in blueberry, cranberry and strawberry, or for site preparation prior to transplanting tree and vine crops. Applications may be made with boom equipment, shielded sprayers, hand-held and high volume orchards guns, or with wiper applicator equipment (orchards, vineyards, cranberry and strawberry only). See the "Mixing and Application Equipment Information" section of this label and the following table for specific information on the use of equipment. Repeat treatments may be necessary to control weeds originating from underground parts of untreated weeds or from seeds. This product does not provide residual or pre-emergent weed control. For subsequent weed control, follow a program using residual herbicides or use repeated applications of this product. Do not apply more than 35 litres of this product per hectare per year.

**EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT, OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT, CANES OF BLUEBERRY BUSHES, OR OTHER PARTS OF TREES OR VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.**

Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut and have not been allowed to regrow to the recommended stage for treatment.

### WEED CONTROL IN TREE, VINE and BERRY CROPS

<b>Crop</b>	<b>Rate (L/ha)</b>	<b>Pre-Harvest Interval (days)</b>	<b>Max. Appl. per Yr.</b>	<b>Weeds Controlled</b>	<b>Comments (Refer to annual weed control and perennial weed control sections for specific rates for weed control)</b>
Apples Apricot Cherry (Sweet/sour) Peaches Pears Plums	2.25-12	30	3	Annual and perennial weeds	
Apples Grapes	<b>Tank Mix</b> 2.25-12 + Simazine 2.0-4.5 kg ai/ha	-	1	Annual and perennial weeds	- Will provide season long pre-emergent control - Do not apply to coarse, sandy or gravelly soil - Use according to the more restrictive label direction for each product in the mix - DO NOT apply to orchards or vineyards that have been established less than 1 or 3 years, respectively - Simazine rate is equivalent to 2.25-5.0 kg/ha Princep® Nine-T®, or 4.0-9.0 kg/ha Simadex®
Grapes	2.25-12	14	3	Annual and perennial weeds	- Remove all sucker growth from the spray zone before spraying, except for the Concord variety of grape - Suckering should be conducted within 2 weeks prior to application - Do not apply to vines which have been established less than 3 years
Highbush (cultivated) blueberry	2.8-5.6	30	1	Quack-grass	- Use as a directed spray, with no more than 275 kPa pressure
Lowbush blueberry	1-2% solution (spot application)	Apply in nonbearing year only	1	Woody brush	- Apply as a directed spray in mid-summer of the vegetative (nonbearing) year

					- See spot treatment section for instructions
Filberts Hazelnut (established plantations)	2.25-3.5	14	-	Annual weeds	- Use as a directed spray, with no more than 275 kPa pressure
Walnut Chestnut Japanese heartnut	2.25-12	-	2	Annual and perennial weeds	- Apply late spring and fall, post-harvest but prior to a killing frost - Apply in 200-300 L water as a directed spray, using no more than 275 kPa pressure - Apply alternatively as a 2% wiper solution (see Wiper Applications section)
Cranberry	20% Solution (1L Wise Up Herbicide Solution + 4L water)	30	1	Annual and perennial weeds	- Apply using wick or wiper applicators
Strawberry	1-2% Solution (spot application) 33% solution (wiper application)	30	1	Emerged Perennial weeds	- Apply when weeds are at a susceptible growth stage (see perennial weed control section) - See spot treatment section for instructions - See wiper application section for instructions
Sugar beets	1-2% solution (spot application)	Treated crop MUST NOT be harvested	1	Dodder species	- Apply when dodder is vigorously growing but before flowering. - See spot treatment section for instructions.

® Princep and Nine-T are registered trademarks of Syngenta.

® Simadex is a registered trademark of Bayer CropSciences Inc.

## SELECTIVE EQUIPMENT

### WIPER APPLICATORS

This product may be applied with a wiper applicator, after dilution and thorough mixing with water, to listed weeds in soy and dry beans, grapes, orchards, cranberries and strawberry.

Applications must be made before initial pod set in soy and dry beans. (It may also be used in any industrial, tree planting and non-crop site specified on this label).

A wiper applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution. Wiper applicators include either roller or wick devices which physically wipe appropriate concentrations or amounts of this product directly onto the weed. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Performance may be improved by reducing speed in areas of heavy weed infestations to insure adequate wiper saturation. Best results may be obtained if 2 applications are made in opposite directions.

**AVOID CONTACT WITH DESIRABLE VEGETATION.** Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that wiper contact point is at least 5 cm above the desirable vegetation. Droplets or foam of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications should be made when the weeds are a minimum of 15 cm above the desirable vegetation. Best results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. See the Weed Control tables in this label for recommended stage of growth for specific weeds.

## NOTES

- . Maintain equipment in good operating condition. Avoid leakage or dripping onto desirable vegetation.
- . Adjust height of applicator to insure proper contact with weeds.
- . Keep wiping surfaces clean.
- . Maintain recommended roller RPM on roller applicators while in use.
- . Keep wiper material at proper degree of saturation with herbicide solution.
- . DO NOT use wiper equipment when weeds are wet.
- . DO NOT operate equipment at ground speeds below 4 and greater than 10 km/h. Weed control may be affected by speed of application equipment. As weed density increases, reduce equipment ground speed to insure good coverage of weeds.
- . Be aware that on sloping ground the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of the wiper applicator.
- . Variation in equipment design may affect weed control. With wiper applicators, the wiping material and its orientation must allow delivery of sufficient quantities of the recommended herbicide solution directly to the weed.
- . Care must be taken with all types of wipers to insure that the absorbent material does not become oversaturated, causing the herbicide to drip onto desirable vegetation.
- . With all equipment, drain and clean wiper parts immediately after using this product, by thoroughly flushing with water.

**For Roller Applicators**-Mix 0.5 to 1.0 L of this product in 10 L water to prepare a 5 to 10% solution. Roller speed should be maintained at 50 to 150 rpm.

**For Wick or other Wiper Applicators**--Mix 1 litre of this product in 2 litres of water to prepare a 33% solution.

## NON-CROPLAND USES

### NON-CROPLAND USES INCLUDE:

Industrial; recreational, rights-of-way, and public areas; turf grass renovation.

### **ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION SECTIONS PRIOR TO SPECIFIC APPLICATION INFORMATION IN ANY LABEL SECTION.**

This product can be used to control annual and perennial weeds and woody brush and trees listed on this label in non-crop areas such as railroad, pipeline, highway, power and telephone rights-of-way; petroleum tank farms and pumping installations; roadsides; storage areas; lumberyards;

fence rows; industrial plant sites; parking areas; school yards, parks, golf courses, other public areas; airports and similar industrial or non-crop areas.

**NOTE:** For all industrial, rights-of-way, recreational and public areas, repeat treatments may be necessary to control regeneration or new growth. When applied as recommended under the conditions described, this product will control weeds in noncropland areas as listed in the following table.

**WEED CONTROL IN NON-CROPLAND AREAS WITH WISE UP HERBICIDE SOLUTION**

WEEDS	GROUND APPLICATION††			COMMENTS
	BOOM APPLICATION	Hand Held High Volume Application		
	Rate † L / ha	Water Vol. L /ha	% Solution	
Annual grasses and broadleaves	2.25 - 3.5	50 - 100	1	Actively growing weeds
Perennial Weeds				
Quackgrass	2.5	50 - 300	1	. Actively growing weeds . Add 0.5% v/v of a recommended surfactant when using water volumes greater than 150 L. Higher rate for long term control and for heavy infestations.
	4.75 - 7.0	50 - 300	2	
Canada Thistle (Bud Stage)	4.75 - 7.0	100 - 300	2	See section on purple loosestrife control for application instructions . Summer through fall is optimum
Purple loosestrife	6.0	300-600	1 - 2 (or 33% for wiper application)	
Other Perennials	7.0 - 12	100 -300	2	
Brush and Trees				
Birch, Cherry,	3.0 - 6.0	100 - 300	1 - 2	. Summer through early

Poplar, Western Snowberry, Willow				fall . Late Summer through fall
Maple, Raspberry/ Salmonberry, Alder	6.0	100 - 300	2	. Fall is optimum
Turf Renovation Annual and Perennial Weeds	2.5 - 12.0	100 - 300	1 - 2	. Use higher end of the rate range for perennials

For more information on rates, water volumes and application, refer to the "Annual and Perennial Weed Control" sections of this booklet.

†† Aerial application may be used for brush and tree control in Industrial rights-of-way only. See aerial application section.

## **APPLICATION INFORMATION FOR NON-CROPLAND USES**

### **Foliar Applications**

Spray coverage should be uniform and complete. Do not spray to the point of run off. Do not allow spray drift to contact desirable vegetation as severe injury or destruction may occur. For woody brush and trees, early season applications may take 30-45 days for symptoms to develop on target species. Late season application may be made to species that have some autumn colours provided no major leaf drop has occurred. Control will be observed the following spring.

### **EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE OF DESIRABLE TURFGRASSES, TREES, SHRUBS, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.**

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

### **GROUND APPLICATIONS: For all non-cropland uses**

For woody brush and trees, apply 3 to 6 L of this product per hectare. Use ground boom or boomless, or mist blower equipment, or apply as a 1 to 2% solution using hand-held high volume equipment. Apply as directed in the recommended volume of clean water to foliage of actively growing vegetation. Use the 6 L/ha rate for Maple, Alder and Willow† species, as well as for hard to control perennial weed species.

(† Suppression only)

Spray coverage should be uniform and complete. Do not spray to the point of runoff. Do not allow spray drift to contact desirable vegetation as severe injury or destruction may occur. If weeds have been mowed or tilled, do not treat until regrowth has reached the recommended stages.

### **AERIAL APPLICATIONS: For industrial rights-of-way only**

## **DIRECTIONS FOR USE**

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.

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

### **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 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.

### **Application Rates**

For woody brush and trees, apply 3 to 6 L of this product per hectare. Use the 6 L/ha rate for Maple, Alder and Willow† species, as well as for hard to control perennial weed species. Use the recommended rates of this herbicide in 30 to 100 L of water per hectare. As density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage. († Suppression only)

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. **PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE.** The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38412 may prevent corrosion.

#### **PURPLE LOOSESTRIFE CONTROL**

- DO NOT TREAT PLANTS OVER OPEN WATER. Wise Up Herbicide Solution is not registered for direct application to bodies of water.
- Treat when plants are actively growing at or beyond the bloom stage. If using hand-held equipment, spray to-wet.
- For wiper applications, see specific section in this label.
- Where feasible, remove flower heads before treatment to ensure prevention of seed set.
- For large (>1.6 ha) monocultures of loosestrife, work from the periphery inward in successive years to allow competing vegetation to invade the treated area.
- A long-term control strategy should include measures to control both established plants and seedlings. Sprayed areas should be monitored to determine the appropriate follow-up management. Early detection and treatment of second and third generation seedlings is important to prevent re-infestation of purple loosestrife. Desirable native plant communities will then have a chance to become re-established.

#### **Selective Equipment for All Non-Cropland Uses**

Selective equipment such as **WIPER** and **ROLLER** applicators can be used to control emerged weeds in non-crop areas and tree plantings. See "Selective Equipment" for more information.

#### **Turfgrass**

When applied as directed, under conditions described, this product controls most existing vegetation. Apply this product at rates specified in the "Weed Control in Non-Cropland Areas" section **DO NOT DISTURB SOIL OR UNDERGROUND PLANT PARTS BEFORE TREATMENT.** Where existing vegetation is growing in a field or unmowed situation, apply this product to actively growing weeds at the stages of growth given in the "Weeds Controlled" section of this booklet. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray and proper translocation into underground plant parts. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

For maximum control of existing vegetation, delay establishment to determine if regrowth from escaped underground plant parts occurs. When repeat treatments are necessary, sufficient regrowth must be attained prior to application. Desirable turfgrasses may be established following the above procedures.

#### **Injection Applications** - for all non-cropland uses

Woody vegetation may be controlled by injection application of this product. Apply using suitable equipment, which must penetrate into living tissue, at a rate of at least 0.5 mL (either undiluted or 1:1 with water) per 5cm tree diameter at breast height (DBH). The cuts should be spaced evenly around the tree and below all major branches. Application may be made at any

time of year, except when cold temperatures prevent adequate penetration of injection equipment, or in the spring during periods of heavy sap flow. Control of tree species with tree diameters greater than 20 cm may not be acceptable at this rate.

Total control may not be evident for 1-2 years following treatment.

A partial list of species controlled includes:

**ALDER**

Alnus spp.

**BIRCH**

Betula spp.

**CEDAR**

Thuja spp.

**CHERRY**

Prunus spp.

**DOUGLAS FIR**

Pseudotsuga spp.

**HEMLOCK**

Tsuga spp.

**MAPLE**†

Acer spp.

**PINE**

Pinus spp.

**POPLAR**

Populus spp.

**WILLOW**

Salix spp.

†This treatment may only provide suppression of Big-Leaf Maple. Late fall applications will provide optimum suppression of Big- Leaf Maple

### **Cut Stump Application**

Woody vegetation may be controlled by the application of this product to freshly cut stumps to prevent regrowth. Because the treatment uses a concentrated solution, application must be made using low-pressure equipment, e.g squirt bottle or similar device. This product must be applied immediately to the surface of the freshly cut stump i.e within 5 minutes for optimum control at the prescribed rates. Only the cambial tissues of the cut surface should be treated. Apply the herbicide solution at a rate equivalent to at least 0.5 mL product for every 5cm DBH. Do not cover the remaining area nor any exposed roots, as this product does not penetrate bark well. This treatment may be used at any time of year, except during periods of heavy sap flow or when low temperatures prevent solution application due to freezing. A water soluble colourant may be added to the solution as a means of indicating which surfaces have been treated. Total control may not be evident until 1-2 years after treatment.

See the Injection Applications section of this label for a partial list of species controlled.

## **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Wise Up Herbicide Solution is a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to Wise Up Herbicide Solution and other Group 9 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of Wise Up Herbicide Solution or other Group 9 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 MEY Canada Corporation at 1-877-512-4659.

**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.