09-DEC-2010
2010-4532

GROUP	9	HERBICIDE

MON 78634

Water Soluble Herbicide

AGRICULTURAL and INDUSTRIAL

CAUTION POISON

WARNING – EYE IRRITANT

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

REGISTRATION NO. 27936 PEST CONTROL PRODUCTS ACT

GUARANTEE: Glyphosate acid equivalent - 64.9% (present as the mono-ammonium salt)
Warning, contains the allergen sodium sulfite.

NET CONTENTS 10.9 Kg

MONSANTO CANADA, INC.
900 - One Research Road
Winnipeg, MB R3T 6E3

NOT FOR RELABELLING OR REPACKAGING.

In case of an emergency involving this product, Call Monsanto collect, day or night:

Accident/Spills/Medical Emergency...(314) 694-4000
or……1-800-332-3111
or CANUTEC.....(613) 996-6666

Read NOTICE before buying or using. If notice terms are not acceptable, return at once unopened.

For additional information on this or other Monsanto agricultural products, call the Monsanto Canada Custom Care Line at: 1-800-667-4944

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

This product contains a petroleum distillate which is toxic to aquatic organisms. Avoid contamination of aquatic systems other than the target areas during the application of this product. Do not contaminate these non-target systems through direct application, disposal of waste of cleaning equipment.

May be harmful if inhaled.

Causes eye irritation. DO NOT get in eyes.

Avoid breathing dusts or sprays

Wear long sleeved shirt, long pants, coveralls and chemical resistant gloves during mixing, loading, application, clean up and repair. Wear goggles or a face shield during mixing/loading, clean up and repair.

Wash thoroughly with soap and water after handling.

Workers should not enter treated fields within 12 hours of treatment. Workers who must enter fields within this time period should wear long-sleeved shirt, long pants and chemical-resistant gloves.

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.

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 SWALLOWED, call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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.
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.

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

TOXICOLOGICAL INFORMATION

Treat symptomatically. This product contains petroleum distillate.

ENVIRONMENTAL HAZARDS

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

PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fibreglass, 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.

STORAGE AND DISPOSAL

Storage:
Avoid contamination of seed, feed, and foodstuffs.

Disposal:
Make the empty container unsuitable for further use.
Dispose of the container in accordance with provincial requirements.
For information on the 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 the clean-up of spills.

of this product and accepts the product on that condition.

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.

GROUP	9	HERBICIDE

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MONSANTO CANADA, INC.
900 - One Research Road
Winnipeg, MB R3T 6E3

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MON 78634 HERBICIDE

1.0 PRODUCT DESCRIPTION

Water soluble herbicide for non-selective weed control in CROPLAND SYSTEMS AND IN NON-CROPLAND AREAS.

CROPLAND USES INCLUDE:

In cropping systems before planting of all crops; in minimum tillage systems; post emergent in glyphosate tolerant canola, glyphosate tolerant soybean and glyphosate tolerant corn (i.e., varieties with the Roundup Ready® Gene); 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.

NON-CROPLAND USES INCLUDE:

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

NOT FOR RELABELLING OR REPACKAGING.

2.0 EMERGENCY NUMBERS

In case of an emergency involving this product, Call Monsanto collect, day or night:

Accident/Spills/Medical Emergency...(314) 694-4000
or…….1-800-332-3111
or CANUTEC.....(613) 996-6666

Read NOTICE before buying or using. If notice terms are not acceptable, return at once unopened.

2.1 INFORMATION

For additional information on this or other Monsanto agricultural products, call the Monsanto Canada Custom Care Line at: 1-800-667-4944

3.0 PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

This product contains a petroleum distillate which is toxic to aquatic organisms. Avoid contamination of aquatic systems other than the target areas during the application of this product. Do not contaminate these non-target systems through direct application, disposal of waste of cleaning equipment

May be harmful if inhaled. Avoid breathing dust or sprays

Causes eye irritation. DO NOT get in eyes

Wear long sleeved shirt, long pants, coveralls and chemical resistant gloves during mixing, loading, application, clean up and repair. Wear goggles or a face shield during mixing/loading, clean up and repair.

Wash thoroughly with soap and water after handling.

Workers should not enter treated fields within 12 hours of treatment. Workers who must enter fields within this time period should wear long-sleeved shirt, long pants and chemical-resistant gloves.

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.

3.1 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.
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Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

3.2 TOXICOLOGICAL INFORMATION

Treat symptomatically. This product contains petroleum distillate.

3.3 ENVIRONMENTAL HAZARDS

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

3.4 PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied only in stainless steel, aluminum, fibreglass, 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.

3.5 STORAGE AND DISPOSAL

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Avoid contamination of seed, feed, and foodstuffs.

Disposal:
Make the empty container unsuitable for further use.
Dispose of the container in accordance with provincial requirements.
For information on the 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 the 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.

DIRECTIONS FOR USE

4.0 GENERAL INFORMATION

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

This product is highly toxic to aquatic and terrestrial plants. Overspray or drift to sensitive habitats should be avoided. A buffer zone of 15 metres is required between the downwind point of direct application and the closest edge of sensitive terrestrial habitats including forested areas, shelter

belts, woodlots, hedgerows, pastures, rangeland and shrubland. A buffer zone of 15 metres is required between the downwind point of direct application and the closest edge of sensitive aquatic habitat including sloughs, coulees, ponds, prairie potholes, lakes, rivers, streams, reservoirs and wetlands, and wildlife habitat at the edge of these bodies of water. Do not contaminate these habitats when cleaning and rinsing spray equipment or containers.

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

MON 78634 herbicide, a water soluble granule, 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 dissolution 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 7.0 and 8.0) 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.

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, MON 78634 herbicide is a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to MON 78634 herbicide and other Group 9 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of MON 78634 herbicide or other Group 9 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Monsanto Canada at 1-800-667-4944 or at www.farmcentral.com.

5.0 MIXING AND APPLICATION

5.1 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.

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.

5.2 EQUIPMENT INFORMATION

MIXING

For ground or industrial type sprayers, ensure bypass agitation is off and begin adding water to the spray tank. Add the proper amount of MON 78634 herbicide as the spray tank fills with water (see "**Weed Control**" sections of this booklet - 7.0, 8.0). Turn on agitation only after all the MON 78634 herbicide has been added. Agitate at least 5 minutes before spraying. If using a tank-mix partner, add after MON 78634 herbicide is dissolved and agitate a further 5 minutes, or until completely mixed.

WHEN TANK MIXING MON 78634 HERBICIDE WITH 2,4-D FORMULATIONS, USE A MINIMUM OF 100 LITRES OF WATER PER HECTARE AND 2.5 LITRES PER HECTARE OR LESS OF A 500 GRAMS PER LITRE 2,4-D AMINE FORMULATION (adjust this rate accordingly for different 2,4-D formulations). DO NOT MIX WITH OTHER ADDITIVES (eg AMMONIUM SULFATE) UNLESS RECOMMENDED ON THIS LABEL. APPLY THE SOLUTION THE DAY IT IS MIXED. PRECIPITATE MAY FORM IF THESE GUIDELINES ARE NOT FOLLOWED.

In the mixing procedure, 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 litres 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 (8.0, 10.0) 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 litres 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 (7.0) 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 "Weeds Controlled" section of this label using knapsack sprayers or high volume spraying equipment utilising handguns or other suitable nozzle arrangements-Unless otherwise specified, make a 0.56 percent solution of this product in water (0.56 kilogram of this product in 100 litres of water) and apply to foliage of vegetation to be controlled. For best results, use a 1.12 percent solution (1.12 kilograms 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 orchards, vineyards, cranberries, strawberries, soy and dry beans, and non-crop areas. For information regarding use of this product with selective equipment, refer to **"Selective Equipment"** section of this label (9.12).

5.3 AERIAL APPLICATION (NON-CROPLAND USE 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. Ensure that the maximum boom width does not exceed 65% of the wing span. Nozzle type, size and orientation must be configured to deliver a droplet size VMD in the coarse (400 - 600 microns) or very coarse (600 - 1000) range.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate(s) 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, or equivalent electronic positioning systems (GPS). The use of a spotter plane is recommended.

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 must be observed.

Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

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.

Product Specific Precautions
Read and understand the entire label before opening this product. If you have questions, call the Monsanto Canada Custom Care Line at 1-800-667-4944 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:

Volume: Apply the recommended rate in a minimum spray volume of 30 litres per hectare.

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.

Aerial application can only be used for weed control in industrial rights-of-way. Refer to section 10.2.2 for more information.

6.0 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 (7.1, 8.1, respectively). The following is a partial list of weeds controlled.

6.1 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
Fall Panicum
Panicum dichotomiflorum
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
Wild Proso Millet
Panicum milliaceum
Yellow Foxtail
Setaria glauca

Other

Dodder
Cuscuta spp.

Annual Broadleaf Weeds

Chickweed
Stellaria media
Cleavers
Galium aparine
Cocklebur
Xanthium strumarium
Corn Spurry
Spergula arvensis
Cow Cockle
Saponaria vaccaria
Eastern Black Flowering Nightshade
Solarum ptycanthum
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
Pennsylvania Smartweed
Polygonum pensylvanicum
Prickly Lettuce
Lactuca scariola
Ragweed (common)
Ambrosia artemisiifolia
Redroot Pigweed
Amaranthus retroflexus
Round-leaved Mallow
Malva pusilla
Russian Thistle
Salsola pestifer
Shepherd's Purse
Capsella bursa-pastoris
Smooth Pigweed
Amaranthus hybridus
Sowthistle (annual)
Sonchus oleraceus
Stinkweed
Thlaspi arvense
Storksbill
Erodium cicutarium
Velvetleaf
Abutilon theofrasti
Volunteer Canola
Brassica spp
Volunteer Flax
Linaria spp
Wild Buckwheat
Polygonum convolvulus
Wild Mustard
Sinapsis arvensis
Wild Tomato
Solanum triflorum

6.2 PERENNIAL WEEDS

Perennial Grasses / Sedges

Blue Grass (Canada)
Poa compressa
Blue Grass (Kentucky)
Poa pratensis
Brome Grass (smooth)
Bromus inermis
Cattail (common)
Typha latifolia
Foxtail Barley
Hordeum jubatum
Quackgrass
Agropyron repens
Wire-stemmed Muhly
Muhlenbergia frondosa
Yellow Nutsedge
Cyperus esculentus

Perennial Broadleaved Weeds

Alfalfa
Medicago spp.
Cottontop
Eriophorum chamissionis
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

6.3 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
Lornica 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

ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION PRECAUTIONS (sections 3.0, 4.0 and 5.0) PRIOR TO SPECIFIC APPLICATION INFORMATION IN ANY LABEL SECTION.

7.0 ANNUAL WEED CONTROL

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

7.1 ANNUAL WEED CONTROL WITH MON 78634 HERBICIDE

RATE (Kg/ha)	GROWTH STAGE	WEEDS CONTROLLED	COMMENTS (Apply in 50 - 100 L/ha water)
0.42	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 0.56 kg/ha rate.
0.56	weeds 8 cm to 15 cm in height	all annual grasses listed above all annual broad leaved 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 (section 7.2) for control options.
0.69-1.06	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**, narrow-leaved hawk's beard***	No surfactant required. For tankmix weed control options see section 7.2. * DO NOT use these rates on plants greater than 8 cm in height ** for 3 - 4 leaf stage use 1.06 kg/ha rate *** for weeds 8 cm to 15 cm in height use 1.06 kg/ha rate
1.25	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 (section 7.2).
1.94	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 (section 7.2).

Agral is a registered trademark of Syngenta Limited, England.
Ag Surf is a registered trademark of Interprovincial Co-operatives Ltd.
Companion is a trademark of Dow AgroSciences LLC.

NOTE: For spot treatment, 0.42 - 1.94 kg/ha is approximately equivalent to 4 - 19 g/100 m^2, respectively.

7.2 ANNUAL WEED CONTROL WITH MON 78634 HERBICIDE TANK MIXTURES FOR SUMMERFALLOW & MINIMUM TILLAGE SYSTEMS

TANK MIXTURES	RATE (Kg/ha)	WEEDS CONTROLLED♦	COMMENTS (Apply in 50-100L/ha water; add 350 mL/ha of surfactant - see list in Section 7.3)
MON 78634 herbicide + Banvel®	0.42-0.56 + 0.29 L/ha	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 **summerfallow use only.** 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 *MON 78634 herbicide applied at 0.56 kg/ha rate only. **Suppression only. See other tank mixtures for control options.
MON 78634 herbicide + Pardner®	0.42-0.56 + 1.25 L/ha	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 only for use in **summerfallow, and prior to wheat, oats and barley in minimum tillage systems.** 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 MON 78634 herbicide at 0.56 kg/ha rate only for wild buckwheat control. ** 0.56 kg/ha rate, suppression only. See other tank mixtures for control options.
MON 78634 herbicide + 2,4-D##	0.69 – 1.06 + 0.6 – 0.9[4] or 1.2 –	Volunteer cereals, wild oats, green foxtail, downy brome, giant foxtail, and Persian darnel. Volunteer canola, (rapeseed) (non-Roundup Ready), wild mustard, flixweed, redroot pigweed, lady's-thumb, stinkweed, kochia, lamb's-quarters, hempnettle, Russian thistle,	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. No surfactant required.

TANK MIXTURES	RATE (Kg/ha)	WEEDS CONTROLLED♦	COMMENTS (Apply in 50-100L/ha water; add 350 mL/ha of surfactant - see list in Section 7.3)
	1.5[5]	volunteer flax, common ragweed*, Canada fleabane, wild buckwheat**, narrow-leaved hawk's beard*** Volunteer Roundup Ready canola (1-4 leaf stage)[4], bluebur[4], burdock[4], cocklebur[4], common plantain[4], daisy fleabane[4], false flax[4], false ragweed[4], goat's beard[4], mustards[4] (except dog and tansy), prickly lettuce[4], ragweeds[4], Russian pigweed[4], shepherd's purse[4], stinging nettle[4], sweet clover[4], thyme-leaved spurge[4], wild radish[4], wild sunflower[4] Volunteer Roundup Ready canola (4-6 leaf stage)[5], annual sow thistle[5], common chickweed[5], common purslane[5], dog and tansy mustard[5], oak-leaved goosefoot[5], groundsel[5], hairy galinsoga[5], hawkweed[5], heal-all[5], knotweed[5], peppergrass[5], pineapple weed[5], prostrate pigweed[5], purslane[5], sheep sorel[5], smartweed[5], tumble pigweed[5], velvetleaf[5], volunteer canola[5]	* DO NOT use these rates on plants greater than 8 cm in height. ** For 3-4 leaf stage use 1.06 Kg/ha rate. *** For weeds 8 cm to 15 cm in height use 1.06 Kg/ha rate. [4] 2,4-D at 0.6 – 0.9 L/ha (280 – 420 g ai/ha). [5] 2,4-D at 1.2 – 1.5 L/ha (560 – 700 g ai/ha). Use this tank mix prior to seeding or after seeding but before crop emergence in **wheat, winter wheat, barley and rye.**
MON 78634 Herbicide + 2,4-D[#]	0.42-0.56 + 1.2 L/ha	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 **summerfallow use only.** 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 MON 78634 herbicide at 0.56 kg/ha rate only for wild oat and green foxtail control. **suppression only. See other tank mixtures for control options.
MON 78634 Herbicide + MCPA[###] 500 g/L	0.69 – 1.06 0.5 – 0.7[3] OR	Volunteer cereals, wild oats, green foxtail, downy brome, giant foxtail, and Persian darnel. Volunteer canola, (rapeseed) (non-Roundup Ready), wild mustard, flixweed, redroot pigweed, lady's-thumb, stinkweed, kochia, lamb's-quarters, hempnettle, Russian thistle,	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. No surfactant required.

TANK MIXTURES	RATE (Kg/ha)	WEEDS CONTROLLED♦	COMMENTS (Apply in 50-100L/ha water; add 350 mL/ha of surfactant - see list in Section 7.3)
formulation. If another formulation is used adjust the rate accordingly.	0.5 – 1.0[4]	volunteer flax, common ragweed*, Canada fleabane, wild buckwheat**, narrow-leaved hawk's beard*** Volunteer Roundup Ready canola (1-4 leaf stage)[3,4], bluebur[5], burdock[5] (before 4 leaf stage), false flax[5], flixweed[5], lamb's-quarters[5], mustards[5] (except dog and tansy), prickly lettuce[5], ragweeds[5], redroot pigweed[5], Russian pigweed[5], shepherd's purse[5], stinkweed (field pennycress)[5], vetch[5], wild radish[5], wild sunflower[5]	* DO NOT use these rates on plants greater than 8 cm in height. ** For 3-4 leaf stage use 1.06 Kg/ha rate. *** For weeds 8 cm to 15 cm in height use 1.06 Kg/ha rate. [3]MCPA amine at 0.5 – 0.7 L/ha (250-350 g ai/ha) prior to field peas. [4]MCPA at 0.5 - 1.0 L/ha (250 - 500 g ai/ha) prior to wheat, barley, oats, corn (field and sweet)[###], rye and flax. [5]MCPA amine at 0.7 – 1.0 L/ha (350 – 500 g ai/ha) only. Use this tank mix prior to seeding **wheat, barley, rye, oats, corn (field and sweet)[###], flax, field peas[###].**
MON 78634 herbicide + MCPA amine 500 g/L formulation If another formulation is used adjust the rate accordingly	0.69 – 1.06 + 0.5 – 0.7 L/ha	Volunteer cereals, wild oats, green foxtail, downy brome, giant foxtail, and Persian darnel. Volunteer canola, (rapeseed) (non-Roundup Ready), wild mustard, flixweed, redroot pigweed, lady's-thumb, stinkweed, kochia, lamb's-quarters, hempnettle, Russian thistle, volunteer flax, common ragweed*, Canada fleabane, wild buckwheat**, narrow-leaved hawk's beard*** Volunteer Roundup Ready canola (1-4 leaf stage)[3], bluebur[4], burdock[4] (before 4 leaf stage), false flax[4], flixweed[4], lamb's-quarters[4], mustards[4] (except dog and tansy), prickly lettuce[4], ragweeds[4], redroot pigweed[4], Russian pigweed[4], shepherd's purse[4], stinkweed (field pennycress)[4], vetch[4], wild radish[4], wild sunflower[4]	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. No surfactant required. * DO NOT use these rates on plants greater than 8 cm in height. ** For 3-4 leaf stage use 1.06 Kg/ha rate. *** For weeds 8 cm to 15 cm in height use 1.06 Kg/ha rate. [3] MCPA amine at 0.5 – 0.7 L/ha (250 – 350 g ai/ha) prior to lentils and chickpeas. [4] MCPA amine at 0.7 L/ha (350 g ai/ha) only.

TANK MIXTURES	RATE (Kg/ha)	WEEDS CONTROLLED♦	COMMENTS (Apply in 50-100L/ha water; add 350 mL/ha of surfactant - see list in Section 7.3)
			Use this tank mix prior to seeding in **lentil and chickpea**.
MON 78634 herbicide + Buctril M®	0.69 – 1.06 0.5 – 1.0[3]	Volunteer cereals, wild oats, green foxtail, downy brome, giant foxtail, and Persian darnel. Volunteer canola, (rapeseed) (non-Roundup Ready), wild mustard, flixweed, redroot pigweed, lady's-thumb, stinkweed, kochia, lamb's-quarters, hempnettle, Russian thistle, volunteer flax, common ragweed*, Canada fleabane, wild buckwheat**, narrow-leaved hawk's beard*** Volunteer Roundup Ready canola (1-4 leaf stage)[3,4], Seedlings up to the 4-leaf stage[4]: Green smartweed, Pale smartweed, Lady's-thumb, Cow cockle, redroot pigweed, flixweed, bluebur, shepherd's purse, kochia[5], Russian thistle[5], Scentless Chamomile[6], Volunteer sunflower, Night flowering catchfly, cocklebur, Velvetleaf[7], ball mustard, American nightshade Seedlings up to the 6-leaf stage[4]: Wild tomato Seedlings up to the 8-leaf stage[4]: Wild buckwheat, Tartary buckwheat, Common buckwheat, Stinkweed, Wild mustard, Wormseed mustard, Lamb's-quarters, Common ragweed, Common groundsel Perennials (Top growth)[4]: Canada thistle, Perennial Sow Thistle	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. No surfactant required. * DO NOT use these rates on plants greater than 8 cm in height. ** For 3-4 leaf stage use 1.06 Kg/ha rate. *** For weeds 8 cm to 15 cm in height use 1.06 Kg/ha rate. [3]Buctril M at 0.5 – 1.0 L/ha (280-560 g ai/ha) for all crops listed. [4]Buctril M at 1.0 L/ha (560 g ai/ha only). [5]Spray before plants are 5 cm high. [6]Spring annuals only. [7]Spray before plants are 8 cm high. Use this tank mix prior to seeding in **wheat, barley, rye, oats, corn, flax, canary seed and seedling grasses (including brome grass, crested wheatgrass, Intermediate wheat grass, slender wheatgrass, tall wheatgrass, Russian wild rye, Timothy, Orchard grass, Creeping red fescue, Meadow fescue, Meadow foxtail, Seedling tall fescue, Seedling meadow bromegrass, Seedling streambank wheatgrass and Reed canary grass).**

♦ For foxtail barley suppression, refer to "**Perennial Weed Control**" table (Section 8.1)

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. Use a minimum of 100 litres of water per hectare when mixing 2,4-D formulations with MON 78634 herbicide (see section 5.2 for more details).
Use only amine formulations of MCPA prior to corn and field peas.

Banvel is a registered trademark of BASF Corporation.
Pardner is a registered trademark of Aventis CropScience SA.
Buctril M is a registered trademark of Aventis CropScience SA.

7.3 SURFACTANT INFORMATION

Addition of Surfactant - All MON 78634 herbicide tank mixtures for annual weed control require the addition of a non-ionic surfactant registered for use such as Agral 90, Ag Surf, or Companion. Surfactant should be added at a rate of 350 millilitres per hectare, in 50 to100 litres of clean water.

7.4 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 (4.0, 5.1 and 5.2, respectively).

7.5 WEED CONTROL IN GLYPHOSATE TOLERANT CANOLA (I.E., VARIETIES WITH THE ROUNDUP READY® GENE)

WARNING: APPLY MON 78634 HERBICIDE ON GLYPHOSATE TOLERANT CANOLA VARIETIES ONLY (I.E., VARIETIES WITH THE ROUNDUP READY GENE).

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 MON 78634 Herbicide label (4.0 and 5.0).

Apply MON 78634 Herbicide in glyphosate tolerant canola only as directed in the following weed control table.

Some short-term, visual yellowing may occur when MON 78634 Herbicide 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 CANOLA WITH THE ROUNDUP READY GENE

Rate (kg/ha)	Growth Stage of Crop	Weeds Controlled	Comments (Apply in 50 – 100 L/ha water)
0.46 – 0.69	0 to 6 leaf	**Annual Grasses** Wild oats, green foxtail, volunteer barley, volunteer wheat, barnyard grass **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*, storksbill*, flixweed*, narrow-leaved hawksbeard*, round-leaved mallow*** **Perennials (suppression)** Canada thistle, perennial sow thistle, dandelion **Perennials (season long control)** Quackgrass**, foxtail barley***, Canada thistle***, perennial sow thistle***	No additional surfactant is required. Repeat applications may be required if a second flush of weeds germinates prior to canopy closure. Ensure the crop has not advanced beyond the recommended growth stage. *** Use the 0.69 kg/ha rate for control of these weeds at all crop growth stages**. 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. **** A single application at the 0.69 kg/ha rate is required.** ***** Sequential applications at the 0.69 kg/ha rate are required**. For sequential applications, ensure the crop has not advanced beyond the recommended growth stage. Maximum 1.38 kg/ha is allowed for the postemergence use.

7.6 WEED CONTROL IN GLYPHOSATE TOLERANT SOYBEAN (I.E., VARIETIES WITH THE ROUNDUP READY GENE)

WARNING: APPLY MON 78634 HERBICIDE ON GLYPHOSATE TOLERANT SOYBEAN VARIETIES ONLY (I.E., VARIETIES WITH THE ROUNDUP READY GENE).

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 SOYBEAN WITH THE ROUNDUP READY GENE

RATE (kg/ha)	GROWTH STAGE OF CROP	WEEDS CONTROLLED♦	COMMENTS (Use 100-200 L/ha water volumes)
1.37	First trifoliate leaf stage through flowering.	Velvetleaf, common ragweed, common lamb's quarters, redroot pigweed, smooth pigweed, cocklebur, green smartweed, lady's thumb, Pennsylvania smartweed, eastern black flowering nightshade, wild mustard, wild buckwheat, foxtail (green, yellow, giant), barnyard grass, crabgrass (smooth, large), quackgrass, milkweed*, yellow nutsedge*, fall panicum, wild proso millet	A second 1.37 kg/ha application may be used for late weed flushes emerging after the initial treatment. * Suppression only. This second application must be made no later than the flowering stage of the soybean.
1.37 – 2.75	First trifoliate leaf stage through to flowering.	Perennial sow thistle, Canada thistle, wire-stemmed muhly	A single application at the higher rate or a second (sequential) application of 1.37 kg/ha will improve control in heavy weed infestations. If sequential applications of 1.37 kg/ha are used they should be at least 2 weeks apart for best results on perennial weeds. This second application must be made no later than the flowering stage of the soybean. Perennial sow thistle and Canada thistle should be from the rosette stage to 50cm in height and actively growing. Wire-stemmed muhly should be 10-

RATE (kg/ha)	GROWTH STAGE OF CROP	WEEDS CONTROLLED♦	COMMENTS (Use 100-200 L/ha water volumes)
			20 cm in height and actively growing. Plants not fully emerged at the time of application will escape the treatment.
2.75	First trifoliate leaf stage through flowering.	All weeds listed above, plus milkweed**, yellow nutsedge**	Only one application per season. ** Will also be controlled by sequential applications of 1.37 kg/ha. Applications should be at least 2 weeks apart for optimum control. This second application must be made no later than the flowering stage of the soybean. Milkweed should be 15-60 cm in height and actively growing; nutsedge should be 5-15 cm in height and actively growing. Plants not fully emerged at time of treatment will not be controlled.

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

7.6.1 TANK MIXTURES

For added residual control of late germinating eastern black nightshade, common lamb's quarters, redroot pigweed, velvetleaf, fall panicum and wild proso millet, Pursuit Herbicide may be tank mixed with MON 78634 Herbicide at a rate of 1.37 kilograms per hectare. Use 0.16 to 0.21 litres per hectare of Pursuit and apply up to and including the 3rd trifoliate leaf stage of the glyphosate tolerant soybeans in 100-200 litres per hectare of clean water. The higher rate is recommended for heavier infestations. This tank mix is recommended primarily for soybean systems with row spacings of 50 centimetres (20 inches) or more where a single application timing is desired.

Mixing: Add and mix Pursuit as per instructions on the Pursuit label and then add MON 78634 Herbicide as per instructions on this label.

A PHI of 100 days is required for the tank mix of MON 78634 Herbicide at 1.37 kilograms per hectare tank mixed with Pursuit Herbicide at 0.16 to 0.21 litres per hectare is permitted.

Refer to the Pursuit Herbicide label for further safety precautions and handling instructions.

Pursuit is a registered trademark of BASF Agrochemical Products B.V. Netherlands.

7.7 WEED CONTROL IN GLYHPHOSATE TOLERANT CORN (I.E., VARIETIES WITH THE ROUNDUP READY GENE)

WARNING: APPLY MON 78634 HERBICIDE ON GLYPHOSATE TOLERANT CORN VARIETIES ONLY; I.E., VARIETIES WITH THE ROUNDUP READY GENE.

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

DO NOT APPLY BY AIR.

WEED CONTROL IN CORN WITH THE ROUNDUP READY GENE

Rate (kg/ha)	Growth Stage of Crop	Weeds Controlled♦	Comments (Use 100-200 L/ha water volumes)
1.37	Up to and including 8 leaf stage.	Velvetleaf, common ragweed, common lamb's quarters, redroot pigweed, smooth pigweed, cocklebur, green smartweed, lady's thumb, pennsylvania smartweed, eastern black flowering nightshade, wild mustard, wild buckwheat, foxtail (green, yellow, giant), barnyard grass, crabgrass (smooth, large), quackgrass, fall panicum, wild proso millet.	A second application may be used for late weed flushes emerging after the initial treatment. This second application must be made no later than the 8 leaf stage of the corn.
1.37	Up to and including 8 leaf stage.	Common milkweed, yellow nutsedge	For control of common milkweed and yellow nutsedge use two applications of 1.37 L/ha. This second application must be made no later than the 8 leaf stage of the corn. Milkweed should be 15-60 cm in height and actively growing.

Rate (kg/ha)	Growth Stage of Crop	Weeds Controlled♦	Comments (Use 100-200 L/ha water volumes)
			Yellow nutsedge should be 5-15 cm in height and actively growing.
1.37	Up to and including 8 leaf stage.	Perennial sow thistle, Canada thistle, wire-stemmed muhly	A second (sequential) application of 1.37 kg/ha will improve control in heavy weed infestations. If sequential applications are used they should be at least 2 weeks apart for best results on perennial weeds. This second application must be made no later than the 8 leaf stage of the corn. Perennial sow thistle and Canada thistle should be from the rosette stage to 50 cm in height and actively growing. Wire-stemmed muhly should be 10-20 cm in height and actively growing. Plants not fully emerged at the time of application will escape treatment.

♦ 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 centimetres in height will be inconsistent, although some weeds may be controlled.

8.0 PERENNIAL WEED CONTROL

ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION SECTIONS (3.0, 4.0 AND 5.0) 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.

8.1 PERENNIAL WEED CONTROL WITH MON 78634 HERBICIDE

WEED	APPLICATION			COMMENTS
	GROWTH STAGE	RATE (Kg/ha)	WATER VOLUME (L/ha)	
Quackgrass (control, light to moderate infestations)	3 to 4 green leaves or more	1.39	50 - 300	Apply in clean water using flat fan nozzles. Allow 3 or more days after treatment before tillage. Refer to **"Quackgrass"** notes in section 8.2.1 for more information. 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 in section 8.2.2. See also below.
Quackgrass (long term control, heavy infestations, high water volumes)	3 to 4 green leaves or more	1.39 -3.89	50 - 300	Allow 3 or more days after treatment before tillage. Rates higher than 1.39 kg/ha will provide more consistent, longer term control, especially with heavier infestations and/or higher water volumes (ie 150-300 L/ha). Refer to "**Quackgrass**" notes in section 8.2.1 for more information.
Canada Thistle	Rosette stage (summer-fallow)	1.39	50 - 100	Apply in clean water using flat fan nozzles. Allow 10 or more days after treatment before tillage. Refer to "**Canada Thistle**" notes in section 8.2.3 for more information.
Canada Thistle	Bud stage or beyond	2.64 -3.89	100 - 300	Allow 5 or more days after treatment before tillage.
Field Bindweed	Full bloom or beyond	3.89 -6.67	100 - 300	Allow 7 or more days after treatment before tillage.
Toadflax	Vegetative stage (summer-fallow) Bud to full bloom (pre-harvest)	1.39	50-100	Apply in clean water using flat fan nozzles. Allow 7 or more days after treatment before tillage. For more information, see "**Summerfallow Control**" (section 8.2.4) or "**Preharvest Control**" (section 9.9).

WEED	APPLICATION			COMMENTS
	GROWTH STAGE	RATE (Kg/ha)	WATER VOLUME (L/ha)	
Common Milkweed*	Bud to full bloom (pre-harvest) Bud to full bloom	1.39 6.67	50 - 100 100 - 300	See "**Preharvest Control**" section, 9.9. Allow 7 or more days after treatment before tillage. Reduced control may occur after full bloom. Milkweed may not all be in the correct stage, therefore, repeat treatments may be required.
Alfalfa	Early bud to full bloom stage. Fall applications only	2.06- 2.78	50 - 300	Allow 5 or more days after treatment before tillage. Use the higher rates when alfalfa populations are high or when heavy grass infestations are also present. For spring applications and control in minimum tillage systems using a 2,4-D tank mix, see section 8.2.6
Dandelion	< 15 cm > 15 cm Rosette to full bloom (pre-harvest)	1.39 2.06 -2.78 1.39	50 - 100 50 - 300 50 - 100	Allow 3 or more days after treatment before tillage for all rates. Use the higher rate when the infestation is heavy. Refer to "**Dandelion**" notes in Section 8.2.5 for more information. Allow 7 or more days after treatment before tillage. For more information, see preharvest control section (9.9)
Foxtail Barley	Seeding to heading	1.39 - 2.78	50 - 100	Allow a minimum of 1 day after treatment before tillage or seeding. Use higher rates for larger, more established plants, heavy infestations, or if plants are stressed.
Other Perennials (see listing section 6.2).	Early heading or early bud stage	3.89 – 6.67	100 - 300	Allow 7 or more days after application before tillage.

***NOTE:** For spot treatment, mix 67 grams product in 5 litres of clean water per 100 m^2. (1.39 - 6.67 kilograms per hectare is approximately equivalent to 14 - 67 grams per 100 m^2, respectively).

8.2 SPECIAL NOTES FOR PERENNIAL WEED CONTROL

8.2.1 QUACKGRASS

For season-long **control on fall tilled ground:** Apply 1.39 kilograms per hectare of this product in spring prior to seeding. Apply in 50 to 100 litres per hectare of clean water as described in the preceding table. Delay application until the majority of quackgrass plants have 4 to 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 centimetres.

NOTE:
This treatment will provide season long control of quackgrass on fall tilled ground. Reduced control will be experienced 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.

8.2.2 SURFACTANT INFORMATION

The following is a list of approved surfactants for use with MON 78634 herbicide for control of quackgrass:

Agral 90	Frigate®
Ag Surf	
Companion	

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

Frigate is a registered trademark of Syngenta Canada Ltd.

8.2.3 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 15 centimetres 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.

MON 78634 HERBICIDE plus Banvel Tank Mixtures

For control of Canada thistle (and perennial sow thistle) in summerfallow or in post-harvest stubble, apply 0.94 kilogram per hectare MON 78634 herbicide plus 1.25 litres per hectare Banvel in 100 to 200 litres per hectare of clean water. In addition, add 350 millilitres per hectare of a non-ionic surfactant registered for use with this product, such as Agral 90, AgSurf, or Companion.

For best results in summerfallow, cultivate in the spring and apply when the majority of thistles are 15 centimetres to 25 centimetres 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 dry 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.

8.2.4 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 and July 21.

2. Allow toadflax to regrow for a minimum of 4 to 5 weeks until they are minimum of 15 centimetres 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.

8.2.5 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.

8.2.6 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 1.39 to 2.78 kilograms per hectare MON 78634 herbicide and 1.2 to 2.4 litres per hectare of any 500 grams per litres 2,4-D amine or low volatile ester formulation in 100 to 200 litres of water per hectare. (Adjust product rates accordingly for other 2,4-D formulations).

For spring applications, use only the low rate of 2,4-D (i.e. 1.2 litres per hectare) and 1.2 to 2.4 kilograms per hectare MON 78634 herbicide. Only cereal crops not underseeded to legumes may be planted following spring applications of this tank mix, and a 14 day interval between application and planting is required.

Use the higher MON 78634 herbicide rates when perennial grasses are prevalent.

8.2.7 ALL PERENNIAL WEEDS

Weed Stages: Weeds must be at the proper stage for effective control. Refer to "**Perennial Weed Control with MON 78634 Herbicide**" (8.1).

Nozzle Type: For best results with conventional boom equipment, apply this product with 50 to 300 litres per hectare of clean water using flat fan nozzles and no more 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 to 7 days for best results (see "**Perennial Weed Control**" table (8.1) 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.

9.0 CROPLAND SITUATIONS

ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION SECTIONS (3.0, 4.0 and 5.0) 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 can also be applied as a directed spray in orchards, vineyards, blueberries, strawberries, and sugar beets, 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 (7.0 and 8.0) for more information.**

9.1 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.

9.2 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 to 25 centimetres 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.

9.3 SPOT TREATMENT (IN-CROP)

This product can be applied as an in-crop spot treatment in barley, corn, oats, soybeans, wheat, forage grasses, legumes, including seed production, strawberries, blueberries and sugarbeets. Applications should be made using the same rates and at the same growth stages as listed in the "**Weed Control**" tables (7.1, 8.1) or use a 0.5 percent solution for annual weeds and quackgrass and a 1.0 percent solution for other perennial weeds (a 0.5 percent solution equals 0.56 kilogram MON 78634 herbicide in 100 litres of spray solution). These solutions should be applied to wet, but not run-off. Applications can be made using boom sprayer, hose and handgun, or hand sprayer in accordance with instructions in the "**Application Equipment**" section (5.2).

9.3.1 GRAZING RESTRICTIONS

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 MON 78634 HERBICIDE TO TRANSLOCATE INTO ALL PLANT PARTS BEFORE GRAZING OR HARVESTING TREATED**

AREAS IN FORAGES.

9.4 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.

9.5 MINIMUM AND ZERO TILLAGE CROPPING SYSTEMS (ALL FIELD CROPS, INCLUDING CEREALS, OIL SEEDS, PULSES, FORAGES AND CORN)

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 these 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

9.5.1 MON 78634 Herbicide plus 2,4-D amine or ester can be applied prior to seeding or after seeding, but before crop emergence **in wheat, winter wheat, barley and rye.** Refer to "**Annual Weed Control with MON 78634 Herbicide Tank Mixtures**" table for information (section 7.2).

9.5.2 MON 78634 Herbicide 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 MON 78634 Herbicide Tank Mixtures**" table for information (Section 7.2).

9.5.3 MON 78634 Herbicide plus Pursuit® can be applied prior to, or after, seeding, but before crop emergence in soybeans. MON 78634 herbicide will control emerged weeds listed on this label when applied as directed, refer to "**Annual and Perennial Weed Control**" (sections, 7.0 and 8.0). Pursuit will control weeds germinating from seed. Add the recommended rates of both products in 100 litres of water per hectare, 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 BASF Corp.

9.5.4 MON 78634 Herbicide plus MCPA can be applied prior to seeding **in wheat, rye, barley, oats, corn (field and sweet; MCPA amine only), flax and field peas (MCPA amine only).** Refer to "**Annual Weed Control with MON 78634 Herbicide Tank Mixtures**" table for information (section 7.2).

9.5.5 MON 78634 Herbicide plus Buctril M® can be applied prior to seeding **in wheat, rye, corn, barley, oats, flax, canary seed and seedling grasses (including brome grass, crested wheatgrass, Intermediate wheat grass, slender wheatgrass, tall wheatgrass, Russian wild rye, Timothy, Orchard grass, Creeping red fescue, Meadow fescue, Meadow foxtail, Seedling tall fescue, Seedling meadow bromegrass, Seedling streambank wheatgrass and Reed canary grass).** Refer to "**Annual Weed Control with MON 78634 Herbicide Tank Mixtures**" table for information (section 7.2).

9.6 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.

9.7 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 centimetres 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.

9.8 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 centimetres 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.

9.9 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, MON 78634 herbicide 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. Germination of barley and wheat are not affected by a preharvest MON 78634 herbicide application.

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.

MON 78634 herbicide should be applied pre-harvest at 1.39 kilograms per hectare in 50 to 100 litres per hectare of clean water, by ground application only. Apply only when the crop has 30 percent or less grain moisture content. This stage typically occurs 7 to 14 days before harvest. For forage crops, apply this product at 1.39 to 2.78 kilograms per hectare 3 to 7 days prior to the last cut before rotation or forage renovation. Consult the table "**Guidelines for Timing of Preharvest Applications**" (Table 9.9.1) 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 to14 days before harvest (or 3 to 7 days for forage applications) 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 (e.g. sloughs), shelterbelts, woodlots and other cover on the edges of fields frequented by wildlife, should be avoided. Leave a 15 metre 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

9.9.1 GUIDELINES FOR TIMING OF PREHARVEST APPLICATIONS

CROP(S)	PERCENT GRAIN MOISTURE	VISUAL SYMPTOMS
WHEAT/BARLEY/OATS	Less than 30	Hard dough stage; a thumbnail impression remains on seed.
CANOLA including glyphosate tolerant varieties	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

CROP(S)	PERCENT GRAIN MOISTURE	VISUAL SYMPTOMS
		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 including glyphosate tolerant varieties	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.

9.10 TREE PLANTINGS

Shelterbelts and Nursery Stock (Woody Ornamentals)
This product may be used to control 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.

9.11 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 (5.2) 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 18.3 kilograms 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

CROP	RATE (Kg/ha)	PRE-HARV INTERVAL (days)	MAX. APPL. PER YR.	WEEDS CONT'D	COMMENTS (Refer to sections 7.1 and 8.1 for specific rates for weed control)
Apples, Apricot Cherry, (Sweet/ sour), Peaches, Pears, Plums	1.25 - 6.67	30	3	Annual and perennial weeds	
Apples, Grapes	Tank Mix 1.25 - 6.67 + 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.

CROP	RATE (Kg/ha)	PRE-HARV INTERVAL (days)	MAX. APPL. PER YR.	WEEDS CONT'D	COMMENTS (Refer to sections 7.1 and 8.1 for specific rates for weed control)
					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	1.25 - 6.67	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	1.56 - 3.11	30	1	Quack-grass	Use as a directed spray, with no more than 275 kPa pressure.
Lowbush blueberry	0.56-1.12% solution (spot application; 0.56-1.12 kg/100 L spray solution)	Apply in non-bearing year only	1	Woody brush on label (Section 6.3)	Apply as a directed spray in mid-summer of the vegetative (non-bearing) year. See section 9.3 for instructions on spot treatments.
Filberts Hazelnut (established plantations)	1.25 - 1.94	14	-	Annual weeds	Use as a directed spray, with no more than 275 kPa pressure.
Walnut Chestnut Japanese heartnut	1.25 - 6.67	-	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 or

CROP	RATE (Kg/ha)	PRE-HARV INTERVAL (days)	MAX. APPL. PER YR.	WEEDS CONT'D	COMMENTS (Refer to sections 7.1 and 8.1 for specific rates for weed control)
					Apply as a 1.12% wiper solution (see Wiper Applications, section 9.12).
Strawberry	0.56-1.12% solution (spot application; 0.56-1.12 kg/100L spray solution) 22% solution (wiper application)	30	1	Emerged perennial weeds	Apply when weeds are at a susceptible growth stage (see sections 8.1,2). See section 9.3 for instructions on spot treatments. See section 9.12 for instructions on wiper applications.
Cranberry	12% Solution (0.14 kg + 1L water)	30	1	Annual and perennial weeds	Apply using wick or wiper applicators (section 9.12).
Sugar beets	0.56-1.12% solution (spot application; 0.56-1.12 kg/100L spray solution)	Treated crop MUST NOT be harvested	1	Dodder species	Apply when dodder is vigorously growing but before flowering. See section 9.3 for instructions on spot treatments.

9.12 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 strawberries. 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. See sections 9.10, 10.1.)

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 the 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 centimetres 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 centimetres 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 (sections 7.1 and 8.1) 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 over-saturated, 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 0.28 to 0.56 kilogram of this product in 10 litres water to prepare a 2.7 percent to 5.3 percent solution. Roller speed should be maintained at 50 to 150 rpm.

For Wick or other Wiper Applicators--Mix 0.28 kilogram of this product per litre of water to prepare a 22 percent solution.

10.0 NON-CROPLAND USES

INDUSTRIAL, RIGHTS-OF-WAY, RECREATIONAL, AND PUBLIC AREAS

ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION and MIXING and APPLICATION SECTIONS (3.0, 4.0 and 5.0) 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 non-cropland areas as listed in the following table:

10.1 WEED CONTROL IN NON-CROPLAND AREAS WITH MON 78634 HERBICIDE

WEEDS	GROUND APPLICATION**			COMMENTS
	BOOM APPLICATION		Hand Held High Volume Application (% Solution)	
	Rate * (Kg/ha)	Water Vol.* (L/ha)		
Annual grasses and broadleaves	1.25 - 1.94	50 - 100	0.56	Actively growing weeds.

WEEDS	GROUND APPLICATION**			COMMENTS
	BOOM APPLICATION		Hand Held High Volume Application (% Solution)	
	Rate * (Kg/ha)	Water Vol.* (L/ha)		
Perennial Weeds				
Quackgrass	1.39	50 - 300	0.56	Actively growing weeds.
	2.64 - 3.89	50 - 300	1.12	Add 0.5% v/v of a recommended surfactant when using water volumes greater than 150 L (see section 8.2.2).
Canada Thistle (Bud Stage)	2.64 - 3.89	100 - 300	1.12	Higher rate for long term control and for heavy infestations.
Purple Loosestrife	3.33	300-600	0.5 6- 1.12 (or 22% solution for wiper application)	See section 10.2.3 for instructions on purple loosestrife applications.
Other Perennials	3.89 - 6.67	100 -300	1.12	Summer through fall is optimum.
Brush and Trees				
Birch, Cherry, Poplar, Western Snowberry, Willow	1.67 -3.33	100 - 300	0.5 6- 1.12	Summer through early fall (see section 10.2).
Maple, Raspberry/ Salmonberry, Alder	3.33	100 - 300	1.12	Late Summer through fall. Fall is optimum.
Turf Renovation				
Annual and Perennial Weeds	1.39 - 6.67	100 - 300	0.5 6- 1.12	Use higher end of the rate range for perennials.

WEEDS	GROUND APPLICATION**			COMMENTS
	BOOM APPLICATION		Hand Held High Volume Application (% Solution)	
	Rate * (Kg/ha)	Water Vol.* (L/ha)		
Roadside Vegetation (1-2 m wide along shoulders) Annual Weeds (refer to Tank-Mix sections on product labels for specific weeds controlled)	1) 0.42-0.56 + 1.25-2.5L DyCleer®480 or 2) 0.42-0.56 + 0.30 L DyCleer 480 + 1.2L 2,4-D amine 500	25-150	-	Refer to annual weed control table in this label (section 7.1) for appropriate product rate for specific weeds. For 2,4-D amine formulations with a different guarantee, adjust the rate accordingly. No application to standing water.
Residual Control Annual and Perennial Weeds (the simazine component of this tank mixture will provide season long control of most germinating broadleaf weeds and grasses. It may also provide post-emergent activity on certain annual weeds)	1.39 - 6.67 + a) 2.5-5.6 kg Simazine 80W or b) 4.0-9.0 L Simadex® Flowable	200-400	-	Do not apply to coarse sandy or gravelly soil. One application per year. Use according to the most restrictive label directions for each product in the mixture. For other simazine formulations registered for industrial/ non-cropland areas, use equivalent rates; i.e. 2.0-4.5 kg simazine/ha.

*For more information on rates, water volumes and application, refer to the "**Annual and Perennial Weed Control**" sections of this booklet (7.1 and 8.1 respectively).

Aerial application may be used for brush and tree control in Industrial rights-of-way only. See "Aerial Application**" section (10.2.2).

DyCleer is a registered trademark of Syngenta Participations AG.
Simadex is a registered trademark of Aventis CropScience UK Limited.

10.2 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 to 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.

10.2.1 GROUND APPLICATIONS: For all non-cropland uses

For woody brush and trees, apply 1.67 to 3.33 kilograms of this product per hectare. Use ground boom or boomless, or mist blower equipment, or apply as a 0.56 to 1.12 percent solution (0.56 to 1.12 kilograms per 100 litres of spray 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 3.33 kilograms per hectare 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.

10.2.2 AERIAL APPLICATIONS: For industrial rights-of-way only

Refer to Section 5.3 for general precautions concerning aerial application.

For woody brush and trees, apply 1.67 to 3.33 kilograms of this product per hectare. Use the 3.33 kilograms per hectare 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 litres of water per hectare. As density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage.(* Suppression only).

10.2.3 PURPLE LOOSESTRIFE CONTROL

- DO NOT TREAT PLANTS OVER OPEN WATER. MON 78634 herbicide 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 section 9.12
- Where feasible, remove flower heads before treatment to ensure prevention of seed set.
- For large (>1.6 hectare) 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.

10.3 SELECTIVE APPLICATION 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**" (section 9.12) for more information.

10.4 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 (10.1).

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 "**Weed Control**" sections 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.

10.5 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. Prepare a 54 percent solution of this product (0.54 kilogram in 1 litre of water) and apply at a rate of at least 0.5 millilitre of this solution per 5 centimetres 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 centimetres may not be acceptable at this rate.

Total control may not be evident for 1 to 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.

10.6 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 0.18 gram glyphosate (0.5 millilitre of a 54 percent solution) for every 5 centimetres of DBH. Do not cover the remaining area or 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 to 2 years after treatment.

See the "**Injection Applications**" section (10.5) of this label for a partial list of species controlled.

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