

**CLEARVIEW™ BRUSH Herbicide is a co-pack of**

**Clearview™ Herbicide**

**And**

**Garlon™ XRT Herbicide**



**Dow AgroSciences**

# ClearView™ Herbicide

GROUP	4	HERBICIDE
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GROUP	2	HERBICIDE
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**ClearView Herbicide is a selective herbicide for post-emergent control of annual and perennial broadleaf weeds, invasive plants and shrubs on rangeland, permanent pasture, rights-of way, industrial and other non-crop areas of Canada.**

COMMERCIAL

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: Aminopyralid, present as potassium salt 52.50%  
Metsulfuron – methyl 9.45%

Warning, contains the allergen sulphites  
Wettable Granules

REGISTRATION NO. 29752 PEST CONTROL PRODUCTS ACT

CAUTION – EYE IRRITANT

NET CONTENTS: 0.1 kg - Bulk

**Dow AgroSciences Canada Inc.**

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Calgary, Alberta

T2P 1M4

1-800-667-3852

®™ Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow

## PRECAUTIONS

### KEEP OUT OF REACH OF CHILDREN

May irritate eyes. Avoid contact with eyes

## PERSONAL PROTECTIVE EQUIPMENT

**Applicators** must wear coveralls and chemical resistant gloves.

**Mixers and Loaders handling concentrated product**, as an extra precaution, should wear coveralls, chemical resistant gloves, goggles, and rubber boots.

**Restricted Entry Interval** - Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours following application on agricultural areas. For non-crop areas, do not enter or allow worker entry into treated areas until sprays have dried.

## SPRAY DRIFT PRECAUTIONS

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 inversion, application equipment and sprayer settings.

## OPERATOR USE PRECAUTIONS

- Wash hands before eating, drinking, using tobacco or using the washroom.
- Avoid breathing spray mist.
- If herbicide penetrates clothing remove immediately; then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.

## FIRST AID

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

**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 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 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 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.

## TOXICOLOGICAL INFORMATION

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

## ENVIRONMENTAL HAZARDS

TOXIC to terrestrial and aquatic plants. Observe terrestrial and aquatic buffer zones specified under DIRECTIONS FOR USE. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body. Avoid application when heavy rain is forecast, as runoff water may flow onto adjacent areas and injure crops and other desirable non-target vegetation.

## STORAGE

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

## 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.

### Returnable containers:

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

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

## GENERAL INFORMATION

ClearView Herbicide, applied as a post emergent, controls annual and perennial broadleaf weeds, invasive plants and shrubs in rangeland, permanent pasture, industrial areas (including but not limited to rights-of-way and military bases) and other non-crop areas. Applications should be avoided under cold or dry conditions or other environmental stresses. **Read all precaution statements before using this product.** For more information contact your local Dow AgroSciences Canada Inc. representative (1-800-667-3852).

For best results, apply ClearView Herbicide to plants that are actively growing at time of application. Do not apply when temperatures exceed 28° C.

## GENERAL USE PRECAUTIONS

ClearView Herbicide is selective and highly active against annual and perennial broadleaf weeds, invasive plants and shrubs. This product is recommended for use on areas where loss of broadleaf forage plants, including legumes, can be tolerated. Injury to or loss of desirable plants may result unless the following precautions are observed. Do not apply or drain or flush equipment on or near desirable vegetation or on areas where their roots may extend or in locations where the chemical may be washed or moved into contact with their roots. Do not apply on walks, driveways, tennis courts or other similar areas.

- Do not apply more than 230 grams per hectare of ClearView Herbicide per annual growing season in rangeland, pasture, industrial, and other non-crop areas.
- Only one application per growing season is permitted.
- Areas treated for 24 months of control should be treated no more than every second year.
- Apply ClearView Herbicide with a recommended surfactant.
- ClearView Herbicide cannot be applied on domestic or commercial turf grass.
- Hay cut from treated grass, in the year of application, should only be used on-farm to feed livestock. The manure or compost from animals fed the treated hay should only be used on registered use sites where the loss of broadleaf forage plants, including legumes, can be tolerated. Contact Dow AgroSciences Canada Inc. for additional information on sensitive broadleaf plant species.

### **Sensitive Plants**

ClearView Herbicide works primarily through uptake by plant foliage and translocation throughout the plant. However, secondary herbicide activity may occur through soil uptake of the aminopyralid component of ClearView Herbicide. Very small amount of ClearView Herbicide can kill or damage sensitive broadleaf plants. Only spray pastures if injury to existing forage can be tolerated. Care should be taken to avoid spraying desirable broadleaved plants, during both growing and dormant periods.

Avoid application within the drip line (outermost edge of the tree canopy) of desirable coniferous and deciduous trees unless injury can be tolerated. Use special caution when using aminopyralid-based products around species with extensive lateral root systems, shallow rooting species and those that propagate vegetatively through layering.

Clippings or hay from vegetation which has been treated with aminopyralid should not be used for composting or mulching. Aminopyralid residues pass through animals unchanged and are still herbicidally active. The manure from animals grazing treated areas or fed treated hay should not be used around susceptible plants. Do not transfer livestock from treated grazing areas onto broadleaf crop areas without first allowing 3 days of grazing on untreated grass pasture.

### **Tank Mixtures**

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

### **DIRECTIONS FOR USE**

READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL.

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.

#### **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) coarse classification. Boom height must be 60 cm or less above the crop or ground.

#### **Aerial application**

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

**INDUSTRIAL AREAS (INCLUDING RIGHTS-OF-WAY), OTHER NON-CROP AREAS, RANGELAND AND PERMANENT PASTURE**

**CLEARVIEW HERBICIDE ALONE**

Apply ClearView Herbicide at a rate of 135 – 230 g/ha. Apply when targeted undesirable vegetation is actively growing. Only weeds and brush present at the time of application will be controlled. Removal of competing vegetation may result in new Canada thistle shoots emerging. Apply using aerial equipment with a minimum of 30 litres spray volume/ha or ground equipment with a minimum of 110 L spray volume/ha, that will assure uniform coverage. For better coverage use 50 litres/ha for aerial application and 200 litres/ha for ground application. Follow all instructions under Mixing Methods for surfactant requirements and order of mixing.

**Weeds Controlled or Suppressed with ClearView Herbicide Alone – Seasonal Control**

<b>Rate of ClearView Herbicide</b>	<b>Controlled Season Long</b>	<b>Suppression</b>
135 g/ha	Ball mustard, bluebur, bull thistle, Canada fleabane, Canada thistle, chickweed, clover, common groundsel, common ragweed, common tansy, corn spurry, cow cockle, dandelion, field scabious, flixweed, green smartweed, hempnettle, horsenettle, kochia*, lady's thumb, musk or nodding thistle, narrow-leaved hawksbeard, oxeye daisy (pre-bud), perennial sow thistle, plumeless thistle, prostrate pigweed, Russian thistle, scentless chamomile, shepherd's purse, spotted knapweed, stinkweed, stork's bill, sweet clover, tall buttercup, tartary buckwheat, volunteer canola**, western snowberry (buckbrush), wild mustard, yellow starthistle	Canada goldenrod, lamb's quarters, wild buckwheat
170 g/ha	Plants listed above plus Cudweed, curly dock, fireweed, perennial pepperweed, hoary alyssum, pussy toes, Scotch thistle, volunteer alfalfa, western ragweed, wild carrot, Prairie wild rose, wild strawberry	Absinth wormwood
200 g/ha	Plants listed above plus Babysbreath, black henbane , cleavers, rush skeletonweed, wild caraway, wild parsnip	

230 g/ha	Plants listed above plus Absinth wormwood, brown knapweed, diffuse knapweed***, hound's tongue, Japanese knotweed, mullein, orange hawkweed****, prickly lettuce, purple loosestrife, whitetop (hoary cress), yellow hawkweed****	Yarrow
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\*Non ALS resistant biotypes

\*\*All varieties except ALS resistant canola

\*\*\*Apply ClearView at 230 g/ha when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of development or in the fall. Plants will be controlled by mid-summer and fall application even though plants may not show any changes in form or stature the year of application.

\*\*\*\*Apply ClearView at 230 g/ha to plants in the bolting stage of development.

#### Weeds Controlled or Suppressed up to 12 Months After Application with ClearView Herbicide Alone

Rate of ClearView Herbicide	Controlled up to 12 Months	Suppression up to 12 Months
135 g/ha	Scentless chamomile	Canada thistle, dandelion
170 g/ha	Plants listed above plus Canada thistle*, dandelion, wild strawberry	Pasture sage (fringed sage), prairie sage, western snowberry (buckbrush), prairie wild rose
200 g/ha	Plants listed above plus prairie wild rose	
230 g/ha	orange hawkweed**, pasture sage (fringed sage)	Silverberry

\*Removal of competing vegetation may result in new Canada thistle shoots emerging.

\*\*Apply ClearView Herbicide at 230 g/ha to plants in the bolting stage of development.

#### Weeds Controlled or Suppressed up to 24 Months After Application with ClearView Herbicide Alone

Rate of ClearView Herbicide	Controlled up to 24 Months	Suppression up to 24 Months
170 g/ha	Wild strawberry	Canada thistle*, dandelion, pasture sage (fringed sage), prairie wild rose
200 g/ha	Plants listed above	Western snowberry (buckbrush)
230 g/ha	Plants listed above plus Dandelion, pasture sage (fringed sage), prairie wild rose, Canada thistle	

\*Removal of competing vegetation may result in new Canada thistle shoots emerging.

#### Preharvest/Grazing Intervals

- There is no restriction on livestock or lactating dairy animals grazing in treated areas.
- Allow 3 days of grazing on an untreated pasture (or feed untreated hay) before transferring livestock to areas where sensitive broadleaf crops may be grown.

### TANK-MIX COMBINATIONS WITH CLEARVIEW HERBICIDE

ClearView Herbicide can be tank mixed with 2,4-D Amine Herbicide to broaden the spectrum of weeds controlled. When a tank mixture is used, follow the most stringent precautions, directions for use, and limitations on the labels of the tank-mix products. Follow all instructions under Mixing Methods for surfactant requirements and mixing order.

#### Tank-Mix Combination - ClearView Herbicide plus 2,4-D Amine Herbicide – Season Long Control

Components	Rate	Season Long Control
ClearView Herbicide	135 g/ha	<u>Broadleaf Weeds</u> Absinth wormwood, annual sowthistle, blue lettuce (top growth), bull thistle (top growth), burdock < 4 leaf, cocklebur, Canada goldenrod, common plantain, goat's beard, gum weed (topgrowth), hawkweed, hoary cress (top growth), lamb's quarters, pasture sage (fringed sage), stinging nettle, wild buckwheat, prickly lettuce  <u>Shrubs</u> silverberry (wolf willow)  Plus all the weeds on the 2,4-D Amine label at 840-1440 g ae/ha (equivalent to 1.5 - 2.6 L/ha of 2,4-D Amine 600)
2,4-D Amine	840-1440 g ae/ha  (equivalent to 1.5 L/ha of 2,4-D Amine 600)	

#### Tank-Mix Combination – ClearView Herbicide plus 2,4-D Amine Herbicide – Season Long Control or Suppression

Components	Rate	Season long Plants Controlled
ClearView Herbicide	170 g/ha	Plants listed above plus  <u>Broadleaf Weeds</u> Prairie sage  <u>Shrubs</u> Shrubby cinquefoil  Plus all the weeds on the 2,4-D Amine label at 840-1440 g ae/ha (equivalent to 1.5 - 2.6 L/ha of 2,4-D Amine 600)
2,4-D Amine	840-1440 g ae/ha  (equivalent to 1.5 - 2.6 L/ha of 2,4-D Amine 600)	

#### Tank-Mix Combination - ClearView Herbicide plus 2,4-D Amine Herbicide – Controlled up to 12 Months After Application

Components	Rate	Controlled up to 12 Months After Application
ClearView Herbicide	135 g/ha	Canada thistle*, dandelion, wild strawberry
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	

\*Removal of competing vegetation may result in new Canada thistle shoots emerging.



Components	Rate	Controlled up to 12 Months After Application
ClearView Herbicide	170 g/ha	Plants listed above plus
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	Shrubby cinquefoil, western snowberry (buckbrush), prairie wild rose  <u>Weeds suppressed at this rate</u> Pasture sage

Components	Rate	Controlled up to 12 Months After Application
ClearView Herbicide	200 g/ha	Plants listed above plus
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	Prairie sage, pasture sage (fringed sage), silverberry (wolf willow),

**Tank-Mix Combination - ClearView Herbicide plus 2,4-D Amine Herbicide – Controlled up to 24 Months After Application**

Components	Rate	Controlled up to 24 Months After Application
ClearView Herbicide	135 g/ha	Dandelion, wild strawberry
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	

Components	Rate	Controlled up to 24 Months After Application
ClearView Herbicide	170 g/ha	Plants listed above plus
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	Pasture sage (fringed sage)  <u>Weeds suppressed at this rate</u> Canada thistle, prairie wild rose

Components	Rate	Controlled up to 24 Months After Application
ClearView Herbicide	200 g/ha	Plants listed above plus
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	Canada thistle*, silverberry (wolf willow), western snowberry (buckbrush), prairie wild rose

\*Removal of competing vegetation may result in new Canada thistle shoots emerging.

Components	Rate	Controlled up to 24 Months After Application
ClearView Herbicide	230 g/ha	Plants listed above plus
2,4-D Amine	1.1 kg ae/ha  (equivalent to 2.0 L/ha of 2,4-D Amine 600)	Prairie sage, shrubby cinquefoil

**Preharvest/Grazing Intervals for ClearView Herbicide tank mixed with 2,4-D Amine 600.**

- There is no restriction on livestock (except lactating dairy animals) grazing in treated areas
- Do not permit lactating dairy animals to graze fields within 7 days after application.
- Do not harvest forage or cut hay within 30 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.
- Allow 3 days of grazing on an untreated pasture (or feed untreated hay) before transferring livestock to areas where sensitive broadleaf crops may be grown.

**TANK-MIX COMBINATION WITH CLEARVIEW HERBICIDE – Non-cropland Uses**

ClearView Herbicide can be tank mixed with glyphosate (present as isopropylamine salt, diammonium salt, trimethylsulfonium salt, potassium salt or dimethylamine salt, registered for use on non-cropland areas) Arsenal Herbicide, or Garlon XRT Herbicide to broaden the spectrum of weeds, woody plants and trees controlled on rights-of-way, industrial areas (including but not limited to right-of-way and military bases) and other non-crop areas (where bare ground is desirable). The glyphosate and Arsenal Herbicide tank mixes will provide control of most grass and broadleaf species, while the Garlon XRT Herbicide tank-mix will provide control of a broad spectrum of broadleaf weeds, woody plants and tree species. When a tank mixture is used, follow the most stringent precautions, directions for use, and limitations on the labels of the tank-mix products.

**Tank-Mix Combination – ClearView Herbicide plus Glyphosate Herbicide**

Use 135 – 230 g/ha ClearView Herbicide tank mixed with 0.8 – 4.3 kg ai/ha glyphosate herbicide (Equivalent to 1.69 – 9.0 L/ha of Vantage™ XRT Herbicide). A surfactant is required. Follow mixing instructions.

**Tank-Mix Combination - ClearView Herbicide plus Arsenal Herbicide**

Apply 3.0 L of Arsenal Herbicide per hectare tank mixed with 135 – 230 g/ha of ClearView Herbicide.

**Tank-Mix Combination - ClearView Herbicide plus Garlon XRT Herbicide**

Use 135 – 230 g/ha of ClearView Herbicide tank-mixed with 2.5 – 5 L/ha of Garlon XRT Herbicide. Use a recommended surfactant (such as Gateway™ Adjuvant, Xiameter OFX-0309 Fluid, or recommended non-ionic surfactant such as Ag-Surf, Agral 90, or Citowett Plus) at the rate of 0.375% by volume (375 mL per 100 L of water). See surfactant label for a full list of recommended rates. Some surfactants require rates ranging from 0.2 to 1%. See Garlon XRT Herbicide label for the full list of woody plants and trees controlled.

For the control of black spruce, use 230 g of ClearView Herbicide tank-mixed with 4-5 L of Garlon XRT, in 1,000 L/ha for hose and handgun applications and a minimum of 200 L/ha for broadcast applications, along with a recommended surfactant (such as Gateway Adjuvant, Xiameter OFX-0309 Fluid, or recommended non-ionic surfactant such as Ag-Surf, Agral 90, or Citowett Plus) at the rate of 0.375% by volume (375 mL per 100 L of water). See surfactant label for a full list of recommended rates. Some surfactants require rates ranging from 0.2 to 1%.

## **MIXING METHODS**

### **Mixing with Water**

1. Fill the spray tank 3/4 full of clean water
2. Add the required amount of ClearView Herbicide with the agitation running. Pre-slurrying with water may be necessary where there is little or no agitation or an injection system is being used or where herbicide is first added to a tank other than the spray tank.
3. If tank mixing, add the required amount of the tank-mix partner with the agitation running.
4. Add the recommended surfactant.
5. Add antifoaming agent, if required.

## **APPLICATION METHODS**

### **INVASIVE PLANT MANAGEMENT**

#### **Invasive Plant Management Practices**

ClearView Herbicide can be applied postemergence as a broadcast spray or as a spot/strip application to control invasive plants. Post emergence applications should be made before bud stage or early flowering, unless otherwise specified. Best results are obtained when the spray volume is sufficient to provide uniform coverage of treated plants. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding or disturbing treated areas for at least 7 days following application.

ClearView Herbicide can be an important component of integrated vegetation management programs designed to restore desired plant communities. To maximize and extend the benefits of weed control provided by the ClearView Herbicide, it is important that other vegetation management practices, including proper grazing management, fertilization, prescribed fire, mechanical mowing, hand-pulling, bio control and other methods, be used in appropriate sequences and combinations to further alleviate the adverse effects of invasive plants on desirable plant species and to promote development of desired plant communities. Consult local agriculture and land management resource specialists and/or invasive plant councils. These organizations can provide guidance on best management practices and the development of integrated vegetation management programs. Rapid response to the early detection of new invasive plants is a key invasive plant management strategy. Containment, eradication and control are essential for the management of spreading and established invasive plants.

#### **Rangeland and Pasture Areas**

Make only one application per year for control of invasive plants. For best results, invasive plants should be treated when they are actively growing and under conditions favourable for growth. The Reclaim Herbicide tank-mix also provides preemergence control of germinating seeds and control of emerged seedlings of susceptible plants following application.

To reduce the spread of invasive plants, it is important to treat identified invasive plants in the target area while observing required buffer zones for broadcast applications. Return when the wind is blowing from the opposite direction to complete spraying the targeted plant population.

#### **Individual Plant or Spot/Strip Applications**

An important component of Invasive Plant Management programs is early detection and eradication. The instructions for individual plant or spot or strip applications can be used to stop the spread of invasive plants. This is particularly important in riparian areas, where spot application is preferable to broadcast treatment. Use the following mixing chart to mix ClearView with enough water and surfactant to make the correct amount of spray solution. Use equipment designed for individual plant or spot/strip applications, such as a backpack sprayer or hose and handgun, to spray susceptible invasive plants. Note that use of the following spray methods or equipment DO NOT require a buffer zone: hand-held or backpack sprayer and spot treatment. Thoroughly and uniformly wet the foliage of all target plants but not to the point of runoff. Direct spray away from aquatic habitats and non-target terrestrial plants. DO NOT apply this product directly to fresh water habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuaries or marine habitats.

### Mixing Chart

ClearView Herbicide	Surfactant*	Spray Solution (water and herbicide)
1.35 – 2.3 grams	20 mL	10 litres
13.5 – 23 grams	200 mL	100 litres
135 -230 grams	2000 mL	1000 litres

\*Recommended surfactant such as Gateway Adjuvant, Ag-Surf, Agral 90 or Citowett Plus

Use the higher rate in the rate range when growing conditions are less than favourable or when the plant foliage is tall and dense.

### Aerial Application

Use ClearView Herbicide alone, or tank mixed with 2,4-D amine herbicide, glyphosate herbicide or Garlon XRT Herbicide, as a broadcast treatment by air to control listed broadleaf weeds and woody plants. Apply ClearView Herbicide at the recommended rates in a minimum spray volume of 30 L/ha by air. For better coverage use 50 litres/ha. Follow all instructions under Mixing Methods for surfactant requirements and order of mixing. Refer to the tank-mix partner label for additional instructions, directions for aerial application and precautions.

Consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

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 swath marking devices.

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

### Operator Precautions

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

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

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 should be laundered regularly.

### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3852 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:

Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 75% of the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

### **Sprayer Clean-Out Instructions**

To avoid injury to desirable plants, thoroughly clean equipment used to apply this product before re-use or using it to apply other chemicals.

1. Immediately after spraying, completely drain the sprayer tank. Any contamination on the outside of the spraying equipment should be removed by washing with clean water.
2. First rinse:
  - Spray the inside of tank with clean water and fill the sprayer with at least one tenth of the spray tank volume.
  - Agitate and circulate for 15 minutes, and flush through booms and hoses.
  - Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
  - Drain tank completely.
3. Second rinse:
  - Fill the tank with clean water.
  - Add All Clear Spray Tank Decontaminator, or Clean-Out Spray Tank Cleaner, or 1 L of household ammonia (containing a minimum of 3 % ammonia) per 100 L of water, or similar tank cleaning agent as per manufacturer's recommendations while filling the tank with clean water.
  - Agitate and then flush the boom and hoses with the cleaning solution. Top up with water making sure the tank is completely full. Allow to stand for 15 minutes with agitation. Flush the solution out of the spray tank through the spray booms. Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
  - If possible, let the solution stand in the sprayer tank and booms for an extended period of time, overnight if possible.
  - After flushing the boom and hoses, drain tank completely.
  - Remove nozzles and screens and clean separately with a cleaning agent or an ammonia solution (100 mL in 10 L water).
4. Third rinse:
  - Rinse the tank with clean water and flush through the boom and hoses using at least one tenth of the spray tank volume.
  - Remove end caps or open ball valves on the ends of each boom section, and flush solution through the boom ends to ensure there is no spray solution trapped between the boom end and the nozzles.
  - Drain tank completely.

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

**Buffer zones**

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

For application to rights-of-way, 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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:	
			Freshwater Habitat	Terrestrial habitat*
Field sprayer	Permanent pasture, rangeland, industrial and other non-crop areas		10	15
Aerial	Permanent pasture, rangeland, industrial and other non-crop areas	Fixed wing (coarse)	175	750
		Rotary wing (coarse)	150	650
		Fixed wing (coarse to very coarse)	125	475
		Rotary wing (coarse to very coarse)	100	325
		Fixed wing (very coarse)	100	375
		Rotary wing (very coarse)	90	225
		Fixed wing (very coarse to extremely coarse)	80	250
		Rotary wing (very coarse to extremely coarse)	70	175

\*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.

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.

NOTE: The spray drift 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.

### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, ClearView Herbicide is a Group 2 and Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to ClearView Herbicide and other Group 2 and Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of ClearView Herbicide or other Group 2 and Group 4 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 Dow AgroSciences Canada Inc. at 1-800-667-3852 or at [www.dowagro.ca](http://www.dowagro.ca).

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

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042018

Label Code: CN-29752-010-E  
Replaces: CN-29752-009

Specimen Label Notes

Add weeds, bull thistle, scotch thistle, rush skeletonweed, hound's tongue, mullein, whitetop (hoary cress)





# Garlon™ XRT Herbicide

GROUP	4	HERBICIDE
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For the control of undesirable woody plants and annual and perennial broadleaved weeds on pastures and rangelands, in non-crop areas such as rights-of-way, military bases and industrial sites, and in forest and woodland management areas.

COMMERCIAL

READ THE LABEL AND BOOKLET BEFORE USING  
KEEP OUT OF REACH OF CHILDREN

GUARANTEE: triclopyr, present as butoxyethyl ester ..... 755 g/L  
Emulsifiable Concentrate

REGISTRATION NO.: 28945 PEST CONTROL PRODUCTS ACT

**PRECAUTIONS**  
**WARNING – SKIN AND EYE IRRITANT**  
**POTENTIAL SKIN SENSITIZER**

NET CONTENTS: 10 L - bulk

**Dow AgroSciences Canada Inc.**  
2400, 215 – 2<sup>nd</sup> Street S.W.  
Calgary, Alberta  
T2P 1M4  
1-800-667-3852

®™Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow

## **PRECAUTIONS**

### **WARNING – SKIN AND EYE IRRITANT**

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

Causes eye irritation. DO NOT get in eyes. May irritate the skin. Avoid contact with skin. Potential skin sensitizer. Wash thoroughly after handling. Avoid breathing vapour or spray mist. Where frequent inhalation of spray mist cannot be avoided, occupational exposure to pesticides can be reduced by use of an air-purifying respirator equipped with an organic vapour-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a cannister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapour (OV) cartridge or cannister with any N, R, P or HE prefilter. Avoid contact with treated foliage and other contaminated surfaces while wet. When spraying, follow a “walk in, spray out” pattern to avoid contact with treated brush. Take precautions to avoid spray drift. Direct spray outward and away from self. Avoid overhead spraying. Select spray nozzle types and pressures to minimize drift potential.

Practice good personal hygiene. At all times when handling herbicide concentrate or applying the dilute mixture, plan events in such a way as to minimize personal exposure. Locate wash stations with an adequate supply of fresh water on work vehicles. Wash thoroughly with soap and water after handling and before eating or smoking. Bathe or take a hot shower after work using plenty of soap.

#### **To minimize exposure when handling and applying Garlon XRT Herbicide:**

- Read and follow directions in the Protective Equipment Requirements and Precautions sections on the label.
- Applicators should receive training on how to minimize personal exposure while applying high volume stem-foliage applied herbicides, including the “walk in, spray out” technique and on how to minimize contact with treated foliage.
- Applicators should be supervised to ensure that all label directions and proper application techniques are followed.
- **For agricultural uses:** Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.
- **For non-crop uses:** Do not enter or allow entry into treated areas during the restricted-entry interval (REI) of 12 hours or until sprays have dried.
- Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

## **PROTECTIVE EQUIPMENT REQUIREMENTS**

### **Handling Concentrate**

When handling concentrate, wear goggles or faceshield, chemical resistant gloves (nitrile or neoprene), clean coveralls over long-sleeved shirt and long pants, impermeable head covering and chemical resistant boots (rubber) during all mixing/loading activities. Remove clothing contaminated with concentrate promptly and wash before reuse. Exercise care in removal of contaminated clothing to avoid secondary skin contact. Segregate contaminated articles and launder separately from other clothing using a double rinse. Leather articles such as boots, belts or watchbands should be destroyed if contaminated by concentrate.

### **Applying Dilute Spray Solution**

When applying dilute solution and during equipment maintenance and repair, wear protective eyewear such as goggles, face shield or safety glasses, clean coveralls over a long sleeved shirt and long pants, impermeable head covering, chemical resistant gloves (nitrile or neoprene) and chemical resistant foot wear such as rubber boots.

## **PHYSICAL OR CHEMICAL HAZARDS**

**COMBUSTIBLE.** Do not use or store near heat or open flame.

## **FIRST AID**

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

**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 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 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 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.

## **TOXICOLOGICAL INFORMATION**

The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient.

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

## **ENVIRONMENTAL HAZARDS**

This product is highly toxic to fish, aquatic plants and aquatic invertebrates and is not labelled for application to water surfaces. Keep out of wetlands, lakes, ponds, streams, rivers and wildlife habitats at the edge of bodies of water. Do not contaminate water by cleaning of equipment or disposal of wastes. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or where the depth to the water table is shallow.

Sensitive terrestrial and aquatic habitat must be protected. A buffer zone should be maintained to avoid overspray and drift into these habitats (refer to Ground Application and/or Aerial Application sections for the buffer zone requirements and spray drift control recommendations). Examples of habitat which may border treated areas are shelterbelts, wetlands (e.g., potholes), sloughs, dry slough borders, non-target wooded areas and vegetated areas adjacent to water.

## **STORAGE**

Do not contaminate water, food or feed by storage or disposal. Store above -2°C or agitate container before use.

## **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.

### **Returnable Containers:**

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

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

## GENERAL INFORMATION

Garlon XRT Herbicide is recommended for the control of undesirable woody plants and annual and perennial broadleaved weeds in pastures and rangelands; in non-crop areas, including: rights-of-way, electrical power lines, communication lines, pipelines, roadsides and railroads, fencerows and around farm buildings, military bases, industrial, manufacturing and storage sites; and in forest and woodland management areas (refer to "RESTRICTED USE AERIAL APPLICATION FOR FOREST MANAGEMENT AREAS (GREATER THAN 500 HECTARES) AND WOODLAND MANAGEMENT AREAS (500 HECTARES OR LESS)").

Among the woody plants controlled at the lower rate are:

alder	elderberry	pinus*
ash	elm*	poplar
aspen	hawthorn	red maple*
basswood	hickory	raspberry*
beech	hop-hornbeam	sassafras
birch	honey locust*	sumac
blackberry	locust	sycamore
buckthorn	maples	tamarack
cherry*	mulberry	wild rose
chokecherry*	oaks*	willow
cottonwood	poison oak	witchhazel
dogwood		

\*These species may require treatment at the higher rate and may need to be retreated the following year, particularly if the original treatment was made at the lower rate.

Among the annual and perennial broadleaved weeds controlled are:

burdock	field bindweed	smooth bedstraw
chicory	lamb's-quarters	vetch
curled dock	ragweed	wild lettuce
dandelion	smartweed	

## GENERAL USE PRECAUTIONS

- Do not apply this product in a manner inconsistent with the label.
- Do not apply Garlon XRT Herbicide directly to, or otherwise permit it to come into direct contact with desirable crops or other desirable broadleaved plants or non-target species and do not permit spray mists containing Garlon XRT Herbicide to drift onto them.

### Avoid Spray Drift

Apply only when there is little or no hazard from spray drift. Small quantities of the spray, which may not be visible, may seriously injure susceptible crops and damage sensitive non-target habitat. A method must be used to detect air movement, lapse conditions or temperature inversions (stable air) such as the use of balloons or a continuous smoke column at or near the spray site or a smoke generator on the spray equipment. If the smoke develops into layers or indicates a potential for hazardous spray drift, DO NOT SPRAY.

## PREHARVEST/GRAZING INTERVALS

Treated areas may be grazed by livestock or harvested for livestock feed provided that the following intervals are adhered to:

### **Grazing or harvesting green forage**

1. Lactating dairy animals
  - a) Up to 3 L/ha: withhold lactating dairy animals from consuming treated green forage for 14 days following treatment
  - b) 3 to 5 L/ha: withhold lactating dairy animals from consuming treated forage for 60 days following treatment.
2. Other livestock
  - a) Up to 3 L/ha: no grazing restriction.
  - b) 3 to 5 L/ha: do not graze or harvest green forage from treated area for 14 days following treatment.

**NOTE :** If less than 25% of a grazed area is treated, there is no grazing restriction (for other livestock only).

### **Haying (harvesting of dried forage)**

1. Lactating dairy animals
  - a) For treatments up to 5 L/ha do not feed lactating dairy animals hay which had been harvested within 60 days of treatment.
2. Other livestock
  - a) Up to 3 L/ha: do not harvest for 7 days following treatment.
  - b) 3 to 5 L/ha: do not harvest hay for 14 days following treatment.

### **Slaughter Withhold**

Withdraw livestock from grazing treated grass or consumption of treated hay at least 3 days prior to slaughter.

## **DIRECTIONS FOR USE**

### **General**

For best results, applications of Garlon XRT Herbicide should be made when woody plants and weeds are actively growing. Use higher rates when hard-to-control species such as ash, chokecherry, elm, maple (other than vine or big leaf), oaks or pine are present. If lower rates are used on hard-to-control species, resprouting may occur and retreatment may be necessary the following year.

Garlon XRT can be applied alone or with Gateway Adjuvant at the rate of 0.375% by volume (375 mL per 100 L of water). See Gateway Adjuvant label for a full list of recommended rates. Inclusion of Gateway Adjuvant in the spray solution with Garlon XRT will provide improved and more consistent control.

When using a drift control agent, follow the manufacturer's directions for the correct mixing sequence.

### **Ground Application**

Consult with the appropriate provincial authorities about use permits and the establishment of buffer zones.

### **Use Precautions**

Garlon XRT Herbicide is not registered for application to water surfaces including lakes, ponds and streams and is highly toxic to fish, aquatic plants and aquatic invertebrates. Do not overspray such areas. In order to reduce the hazard of drift to non-target plants, aquatic species or sensitive habitat, ensure that appropriate buffer zones are maintained and refer to the section Spray Drift Control.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and parks is minimal.

Do not use this product as a broadcast foliar spray in residential areas. Residential areas are defined as sites where bystanders including children may be potentially exposed during or after spraying. This includes around homes, schools, parks, playgrounds, playing fields, public buildings or any other areas where the general public including children could be exposed.

Do not use this product more than once per year.

### **Spray Drift Control**

The potential for spray drift with ground broadcast applications can be reduced by:

- Apply a coarse spray using large droplet producing nozzle tips. Do not apply with cone-type insecticide or other nozzles that produce a fine droplet spray.
- Use of Radiarc or Nalco-Trol or an equivalent drift control system or additive.
- Keep the spray boom as low as possible.
- Use a spray pressure no greater than is required to obtain a proper spray pattern for adequate plant coverage.
- For ground application, do not apply Garlon XRT Herbicide when wind velocity and direction pose a risk of spray drift. Apply when wind speed is low. For aerial application, please refer to "Use Precautions" for appropriate buffer zones under "Restricted Use."
- If a spray thickening agent is used, follow all use directions and precautions on the product label. When using a power sprayer and handgun, direct sprays no higher than the tops of the target plants.

## **GROUND EQUIPMENT APPLICATIONS**

### **Single Stem Foliar**

For control of woody plants up to 2.5 m in height, use Garlon XRT Herbicide at rates of 2.5 to 5 L in enough water to make 1000 L of spray solution. Use the higher rate for late summer application when growth rates are reduced or when hard-to-control species are present. Spray brush to the point of runoff. Coverage should be thorough to wet all foliage. To minimize spray drift do not use pressures exceeding 1400 kPa at the spray nozzle. Direct the spray away from crops or desired non-target vegetation. Use of a drift control system is suggested to minimize spray drift. For woody plants exceeding 2.5 m in height cut and spray regrowth or use one of the basal application methods.

### **Low Volume Foliar**

For control of woody plants up to 2.5 m in height use this technique with knapsack or backpack sprayers equipped with flat fan or solid cone nozzles. Power sprayers and handguns may also be used. For control of woody plants, mix 0.6 to 3 L of Garlon XRT Herbicide in enough water to make 100 L of spray solution. Use of a rate in the upper end of the recommended range is suggested for control of basal sprouting and root suckering species and for tall, dense brush. Direct the spray solution to thoroughly wet the foliage of the target plants but not to the point of runoff. Apply after full leafout, but before autumn colouration. For woody plants exceeding 2.5 m in height cut and spray regrowth or use one of the basal application methods.

### **Broadcast Foliar**

For woody plant control and broadleaved weed control, make applications with equipment that will assure uniform coverage of the low spray volume applied. Do not use pressure exceeding 275 kPa at the spray nozzle. Apply any time during the growing season. Use the higher rates for late summer applications when growth rates are reduced or when hard-to-control species are present.

### **Woody Plant Control**

Mix 2.5 to 5 L of Garlon XRT Herbicide in a minimum of 200 L of water per hectare to ensure uniform coverage.

### **Broadleaved Weed Control**

Mix 0.6 to 2.5 L of Garlon XRT Herbicide in a minimum of 200 L of water per hectare to ensure uniform coverage.

## **BASAL BARK APPLICATIONS**

### **General Information and Mixing Instructions**

For control of woody plants in rights-of-way, military bases, industrial sites and non-crop areas, use Garlon XRT Herbicide in oil mixtures prepared and applied as described below. Use a diluent such as mineral oil or vegetable oil. Add Garlon XRT Herbicide to the required amount of oil in the mixing tank and mix thoroughly. When mixing with oils commercially formulated for basal bark herbicide applications, read and follow the use directions and precautions on the product label prepared by the oil's manufacturer.

Use the higher spray mixture concentration of Garlon XRT Herbicide when treating basal sprouting and root suckering species or when applying during the dormant season. Use low nozzle pressure to minimize spattering of spray solution off the target stem.

### **One-Sided Low Volume**

To control woody plants with stems less than 15 cm in basal diameter, mix 13 to 19 L of Garlon XRT Herbicide in enough oil diluent to make 100 L of spray mixture. Apply with a knapsack or backpack sprayer using a flat fan or solid cone nozzle, or wick attachment. Low pump pressures of 70 to 210 kPa are recommended. Spray the basal parts of at least one side of each stem to thoroughly wet the lower 30 cm, including the root collar area, but not to the point of runoff. Apply at any time, including the winter months, except when snow or water prevents spraying at the ground line.

### **Streamline**

To control woody plants, mix 13 to 19 L of Garlon XRT Herbicide in enough oil to make 100 L of spray mixture. Apply using a knapsack or backpack sprayer with a flat fan or solid cone nozzle, or wick attachment. Low pump pressures of 70 to 210 kPa are recommended. Apply sufficient spray to one side of stems less than 8 cm in basal diameter to form a band 5 cm in width. When the optimum amount of spray mixture is applied, the treated zone should widen to encircle the stem within approximately 30 minutes. Treat both sides of stems which are 8 to 15 cm in basal diameter. Direct the spray at a point on the stem that is approximately 30 to 50 cm above ground level. Optimal results are achieved when applications are made to young vigorously growing stems which have not developed the thicker bark characteristics of slower growing, understory trees in older stands. Apply at any time, including the winter months, except when snow or water prevents spraying at the desired height above ground level.

### **Cut Stump Treatment**

To control resprouting of cut stumps of woody species, mix 13 to 19 L of Garlon XRT Herbicide in enough oil to make 100 L of spray mixture. Apply the solution to thoroughly wet the outer portion of the cut surface adjacent to the cambium and the sides of the stumps, including the root collar area, but not to the point of runoff. Apply at any time, including the winter months, except when snow or water prevents spraying to the ground line. Care must be given to ensure treatment of all cut stems in a clump. Apply with a backpack or knapsack sprayer using a flat fan or a solid cone nozzle. Low pump pressures of 70 to 210 kPa are recommended.

### **TANK-MIX COMBINATION WITH GARLON XRT HERBICIDE – Non-cropland Uses**

Garlon XRT can be tank mixed with ClearView Herbicide to broaden the spectrum of weeds, woody plants and trees controlled on rights-of-way, industrial areas (including but not limited to right-of-way and military bases) and other non-crop areas where bare ground is desirable. This tank-mix will provide control of a broad spectrum of broadleaf weeds, woody plants and tree species. When a tank mixture is used, follow all precautions, directions for use, and limitations on the tank-mix partner label.

### **Tank-Mix Combination - Garlon XRT plus ClearView Herbicide**

Use 135 – 230 g/ha of ClearView Herbicide tank-mixed with 2.5 – 5 L/ha of Garlon XRT Herbicide. Use a recommended surfactant (such as Gateway Adjuvant, Xiameter OFX-0309 Fluid, or recommended non-ionic surfactant such as Ag-Surf, Agral 90, or Citowett Plus) at the rate of 0.375% by volume (375 mL per 100 L of water). See surfactant label for a full list of recommended rates. Some surfactants require rates ranging from 0.2 to 1%. See ClearView Herbicide label for the full list of broadleaf weeds and woody plants controlled.

For the control of black spruce, use 230 g of ClearView Herbicide tank-mixed with 4-5 L of Garlon XRT, in 1,000 L/ha for hose and handgun applications and a minimum of 200 L/ha for broadcast applications, along with a recommended surfactant (such as Gateway Adjuvant, Xiameter OFX-0309 Fluid, or recommended non-ionic surfactant such as Ag-Surf, Agral 90, or Citowett Plus) at the rate of 0.375% by volume (375 mL per 100 L of water). See surfactant label for a full list of recommended rates. Some surfactants require rates ranging from 0.2 to 1%.

## MIXING METHODS

### Mixing with Water

1. Fill the spray tank 3/4 full of clean water
2. Add the required amount of ClearView Herbicide with the agitation running. Pre-slurrying with water may be necessary where there is little or no agitation or an injection system is being used or where herbicide is first added to a tank other than the spray tank.
3. Add the required amount of Garlon XRT with the agitation running.
4. Add the recommended adjuvant.
5. Add antifoaming agent, if required.

**NOTE TO USER:** READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS: The DIRECTIONS FOR USE for this product for the use(s) described below were developed by persons other than Dow AgroSciences Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Dow AgroSciences Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on the crop(s) listed below.

Accordingly, the User assumes all risks related to performance and crop tolerance arising, and agree to hold Dow AgroSciences Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use(s) described below.

## DIRECTIONS FOR USE

### LOWBUSH BLUEBERRY SITE PREPARATION

Make one application per year. Apply as a directed ground spray. Direct contact of the spray with the blueberry plant will cause severe damage.

**Woody plants controlled:** alder, ash, birch, chokecherry<sup>†</sup>, maples (red maple<sup>†</sup>), and poplar.

<sup>†</sup>may require higher rates and a repeat application the following year for control.

**Application rate:** Refer to the **Basal Bark Application** section of the main Garlon XRT Herbicide label for the application rate to use.

### CHRISTMAS TREE PLANTATIONS

For the control of labelled weeds, including smooth bedstraw, in Christmas tree plantations, apply Garlon XRT at the rate of 635 millilitres per hectare in 250 to 300 litres of water as a directed spray below the branches. The spray should not contact the branches of the Christmas trees as injury will occur. The use of shields will help prevent direct contact with the tree branches. Ensure complete coverage of the leaves of the target weeds. Apply to trees at least 1.2 metres tall.

Apply Garlon XRT Herbicide after the buds of the Christmas trees have hardened off and no lammas growth is present.

Do not apply in the year of planting. Apply only once per year.

Refer to the main Garlon XRT label for additional details and instructions.



## **RESTRICTED USE**

Garlon XRT Herbicide may be applied by air for control of susceptible woody plants growing on rights-of-way, industrial sites and military bases.

**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.

**NATURE OF RESTRICTION:** This product is to be used only in the manner authorized; consult provincial pesticide regulatory authorities about use permits.

## **DIRECTIONS FOR USE**

### **Aerial Application**

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. **Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.**

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices

### **Use Precautions**

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

### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3852 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the precautions and application rates set out below.

### **ENVIRONMENTAL HAZARDS**

This product is highly toxic to fish, aquatic plants and aquatic invertebrates and is not labelled for application to water surfaces. Keep out of wetlands, lakes, ponds, streams, rivers and wildlife habitats at the edge of bodies of water. Do not contaminate water by cleaning of equipment or disposal of wastes. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or where the depth to the water table is shallow.

Aerial application must only be done on the basis of provincial use permit. Buffer zones are specified to protect the sensitive areas as identified in the Environmental Hazards section of the product label.

Among the species controlled are:

alder	elderberry	pinus*
ash	elm*	poplar
aspen	hawthorn	red maple*
basswood	hickory	raspberry*
beech	hop-hornbeam	sassafras
birch	honey locust*	sumac
blackberry	locust	sycamore
buckthorn	maples	tamarack
cherry*	mulberry	wild rose
chokecherry*	oaks*	willow
cottonwood	poison oak	witchhazel
dogwood		

\*These species may require treatment at the higher rate and may need to be retreated the following year, particularly if the original treatment was made at the lower rate.

### **DIRECTIONS FOR USE:**

#### **AERIAL APPLICATION**

Garlon XRT Herbicide may be applied by either fixed or rotary wing aircraft for the control of susceptible woody plants growing on rights-of-way, industrial sites and military bases. Use 2.5 to 5 L of Garlon XRT Herbicide in a minimum spray volume of 30 L per hectare. Delivery systems suggested for use in applying Garlon XRT Herbicide by air include: booms equipped with coarse droplet producing conventional disc and core nozzles (such as D8-46 or D10-46), the Microfoil boom or the Thru-Valve boom. Ensure uniform and adequate coverage is achieved and that equipment has been accurately calibrated. Use higher application rates and volumes when plants are dense or under drought conditions.

#### **USE PRECAUTIONS**

Garlon XRT Herbicide is not registered for application to water surfaces including lakes, ponds and streams and is highly toxic to fish, aquatic plants and aquatic invertebrates. Do not overspray such areas. In order to reduce the hazard of drift to sensitive areas as identified in the Environmental Hazards section of the label, ensure that appropriate buffer zones are maintained as outlined below. Use only closed mixing/loading systems for aerial application.

## BUFFER ZONE TABLES FOR GARLON XRT HERBICIDE

### A. BUFFER ZONES FROM AQUATIC HABITATS

A buffer zone should be maintained to avoid overspray and drift into wetlands, lakes, ponds, streams, rivers, and wildlife habitats at the edge of bodies of water. Appropriate buffer zones, based on aircraft type, boom height, droplet spectrum, and rate of application, are as follows.

For application to rights-of-way, 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 directions, 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.

#### APPLICATION BY FIXED WING AIRCRAFT

##### 1) DROPLET SPECTRUM: COARSE (VMD 351 $\mu\text{m}$ ; range 163 to 595 $\mu\text{m}$ )

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height) <sup>†</sup>			
	$\leq 5$ m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	10	31	71	112
>2.5 to 3.8 L/ha	18	43	94	150
>3.8 to 5 L/ha	26	56	122	205

##### 2) DROPLET SPECTRUM: VERY COARSE (VMD 461 $\mu\text{m}$ ; range 224 to 787 $\mu\text{m}$ )

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height)			
	$\leq 5$ m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	5	19	54	91
>2.5 to 3.8 L/ha	10	28	69	116
>3.8 to 5 L/ha	14	35	82	142

<sup>†</sup> Boom height is the distance between the target vegetation (e.g. canopy) and the boom of the aircraft. The buffer zone is the distance between the sensitive habitat and the downwind edge of the spray boom. For example, these charts are read as follows: at an application rate of 3.8 L/ha, a boom height of 10 m, and a coarse droplet spectrum (VMD 351  $\mu\text{m}$ ), maintain a 17 m buffer zone between aquatic habitats (e.g., wetlands, lakes, ponds, streams, rivers, and wildlife habitats at the edge of bodies of water) and the downwind edge of the spray boom.

#### APPLICATION BY ROTARY AIRCRAFT

##### 1) DROPLET SPECTRUM: COARSE (VMD 351 $\mu\text{m}$ ; range 163 to 595 $\mu\text{m}$ )

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height)			
	$\leq 5$ m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	5	13	47	86
>2.5 to 3.8 L/ha	8	17	59	108
>3.8 to 5 L/ha	12	20	72	144

##### 2) DROPLET SPECTRUM: VERY COARSE (VMD 461 $\mu\text{m}$ ; range 224 to 787 $\mu\text{m}$ )

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height)			
	$\leq 5$ m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	3	10	37	71
>2.5 to 3.8 L/ha	6	12	46	87
>3.8 to 5 L/ha	7	14	53	103

## B. BUFFER ZONES FROM TERRESTRIAL HABITATS

A buffer zone should be maintained to avoid overspray and drift into sensitive terrestrial wildlife habitats. Consult the Provincial Pesticide Authority regarding the determination of these areas. Appropriate buffer zones, based on aircraft type, boom height, droplet spectrum, and rate of application, are as follows.

For application to rights-of-way, 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 directions, 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.

### APPLICATION BY FIXED WING AIRCRAFT

#### 1) DROPLET SPECTRUM: COARSE (VMD 351 µm; range 163 to 595 µm)

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	18	36	69	99
>2.5 to 3.8 L/ha	26	45	82	116
>3.8 to 5 L/ha	31	53	92	132

#### 2) DROPLET SPECTRUM: VERY COARSE (VMD 461 µm; range 224 to 787 µm)

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	14	27	56	82
>2.5 to 3.8 L/ha	18	35	69	98
>3.8 to 5 L/ha	21	40	76	112

### APPLICATION BY ROTARY AIRCRAFT

#### 1) DROPLET SPECTRUM: COARSE (VMD 351 µm; range 163 to 595 µm)

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	14	22	54	84
>2.5 to 3.8 L/ha	17	26	61	96
>3.8 to 5 L/ha	19	28	68	105

#### 2) DROPLET SPECTRUM: VERY COARSE (VMD 461 µm; range 224 to 787 µm)

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	11	18	46	71
>2.5 to 3.8 L/ha	13	21	53	84
>3.8 to 5 L/ha	16	23	59	93

### Spray Drift Control

Apply only when there is little or no hazard of spray drift since small quantities of product may injure susceptible crops and damage sensitive non-target habitats.

1. Do not apply Garlon XRT Herbicide when wind velocity and direction pose a risk of spray drift.
2. Do not apply when the wind speed is greater than 16 km/hr.
3. Garlon XRT Herbicide should not be applied at a boom height greater than 30 m above the target vegetation.

4. Aerial application should be made as close to the ground as possible while maintaining adequate coverage.
5. For helicopter application use pressures at the lower end of the range recommended by the nozzle manufacturer. For fixed wing application use pressures at the higher end of the range recommended by the nozzle manufacturer.
6. Use a boom length less than 75% of the wing span or rotor length.
7. Coarse spray droplets are less prone to drift, therefore avoid spray dispersal systems and settings that produce a large proportion of fine droplets in the spray pattern. Delivery systems suggested for use in applying Garlon XRT Herbicide by air include: booms equipped with coarse droplet producing conventional disc and core nozzles (such as D8-46 or D10-46), straight stream coreless nozzles (such as D6 or D8), and the Microfoil or Thru-Valve boom. Conventional disc and core nozzles should be oriented straight back or at an angle of less than 30° down.
8. Do not apply by air when an air temperature inversion exists. Such condition is characterized by little or no wind and an air temperature near the ground that is lower than at higher levels. A method must be used to detect air movement, lapse conditions or temperature inversions such as the use of balloons or a continuous smoke column at or near the site.

#### **RESTRICTED USE**

**AERIAL APPLICATION FOR FOREST MANAGEMENT AREAS (GREATER THAN 500 HECTARES) AND WOODLAND MANAGEMENT AREAS (500 HECTARES OR LESS):** This includes site preparation prior to planting crop trees and release of crop trees following planting or in natural regeneration sites.

**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.

**NATURE OF RESTRICTION:** This product is to be used only in the manner authorized; consult provincial pesticide regulatory authorities about use permits.

#### **DIRECTIONS FOR USE**

##### **Aerial Application**

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. **Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.**

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices

##### **Use Precautions**

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

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.

### **Product Specific Precautions**

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3852 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the precautions and application rates set out below.

### **ENVIRONMENTAL HAZARDS**

This product is highly toxic to fish, aquatic plants and aquatic invertebrates and is not labelled for application to water surfaces. Keep out of wetlands, lakes, ponds, streams, rivers, and wildlife habitats at the edge of bodies of water. Do not contaminate water by cleaning of equipment or disposal of wastes. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or where the depth to the water table is shallow.

Aerial application must only be done on the basis of provincial use permit. Buffer zones are specified to protect the sensitive areas as identified in the Environmental Hazards section of this label.

Among the species controlled are:

red alder	pin cherry	red oak
speckled alder	bigleaf maple <sup>♦</sup>	balsam poplar
white ash	red maple	raspberry
trembling aspen	sugar maple <sup>▼</sup>	willow
white birch <sup>♦</sup>		

<sup>♦</sup>White birch is best controlled through the use of any one of the foliar application methods.

<sup>▼</sup>Sugar maple and bigleaf maple are best controlled through the use of any one of the basal bark application methods.

### **DIRECTIONS FOR USE: AERIAL APPLICATION**

Garlon XRT Herbicide may be applied by either fixed or rotary wing aircraft. Delivery systems suggested for use in applying Garlon XRT Herbicide by air include: booms equipped with coarse droplet producing conventional disc and core nozzles (such as the D8-46 or D10-46), the Microfoil boom or the Thru-Valve boom. Ensure uniform and adequate coverage is achieved and that equipment has been accurately calibrated. Use higher application rates and volumes when plants are dense or under drought conditions.

### **Plantation or Natural Stand Release**

To release crop trees such as black spruce and white spruce from raspberry and deciduous competition, apply 1.9 to 3.8 L of Garlon XRT Herbicide with water in a minimum of 30 L of total spray solution per hectare. The higher rates are suggested for control of basal sprouting or root suckering species and for tall, dense brush.

Application should be made in late summer after conifers have hardened off (buds firm and sharp to the touch) and when deciduous species are in full leaf prior to autumn colouration.

To release jack pine, use 1.9 to 2.5 L per hectare of Garlon XRT Herbicide. Jack pine injury including needle damage, leader atrophy and scattered mortality may occur at application rates above 2.5 L per hectare or if seedlings are not completely dormant. Do not apply Garlon XRT Herbicide to release jack pine stands unless such injury can be tolerated. The potential for jack pine injury can be reduced by ensuring that trees are not in lammas or secondary growth stage. Healthy, vigorous jack pine seedlings in the ground for at least two years prior to application, are less likely to show symptoms of injury.

### Site Preparation

Apply 1.9 to 5 L of Garlon XRT Herbicide with water in a minimum of 30 L of total spray solution per hectare. The higher rates are suggested for control of basal sprouting or root suckering species and for tall, dense brush. Applications should be made after full leaf-out of target species, but prior to autumn colouration. Any coniferous silvicultural species may be planted in the season following treatment.

### USE PRECAUTIONS

Garlon XRT Herbicide is not registered for application to water surfaces including lakes, ponds and streams and is highly toxic to fish, aquatic plants and aquatic invertebrates. Do not overspray such areas. In order to reduce the hazard of drift to sensitive areas as identified in the Environmental Hazards section of the label ensure that appropriate buffer zones are maintained as outlined below.

Use only closed mixing/loading systems for aerial application.

### BUFFER ZONE TABLES FOR GARLON XRT HERBICIDE

#### A. BUFFER ZONES FROM AQUATIC HABITATS

A buffer zone should be maintained to avoid overspray and drift into wetlands, lakes, ponds, streams, rivers, and wildlife habitats at the edge of bodies of water. Appropriate buffer zones, based on aircraft type, boom height, droplet spectrum, and rate of application, are as follows.

#### APPLICATION BY FIXED WING AIRCRAFT

##### 1) DROPLET SPECTRUM: COARSE (VMD 351 µm; range 163 to 595 µm)

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height) †			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	14	46	145	259
>2.5 to 3.8 L/ha	27	79	248	406
>3.8 to 5 L/ha	39	116	305	487

##### 2) DROPLET SPECTRUM: VERY COARSE (VMD 461 µm; range 224 to 787 µm)

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	6	24	72	144
>2.5 to 3.8 L/ha	12	37	107	214
>3.8 to 5 L/ha	17	50	147	265

† Boom height is the distance between the target vegetation (e.g. canopy) and the boom of the aircraft. The buffer zone is the distance between the sensitive habitat and the downwind edge of the spray boom. For example, these charts are read as follows: For a fixed wing aircraft, at an application rate of 3.8 L/ha, a boom height of 10 m, and a coarse droplet spectrum (VMD 351 µm), maintain a 79 m buffer zone between aquatic habitats (e.g., wetlands, lakes, ponds, streams, rivers, and wildlife habitats at the edge of bodies of water) and the downwind edge of the spray boom.

**APPLICATION BY ROTARY AIRCRAFT****1) DROPLET SPECTRUM: COARSE (VMD 351 µm; range 163 to 595 µm)**

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	7	15	77	175
>2.5 to 3.8 L/ha	12	21	147	278
>3.8 to 5 L/ha	18	27	190	368

**2) DROPLET SPECTRUM: VERY COARSE (VMD 461 µm; range 224 to 787 µm)**

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Aquatic Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	4	10	44	101
>2.5 to 3.8 L/ha	6	14	60	153
>3.8 to 5 L/ha	8	16	81	193

**B. BUFFER ZONES FROM TERRESTRIAL HABITATS**

A buffer zone should be maintained to avoid overspray and drift into sensitive terrestrial wildlife habitats. Consult the Provincial Pesticide Authority regarding the determination of these areas. Appropriate buffer zones, based on aircraft type, boom height, droplet spectrum, and rate of application, are as follows.

**APPLICATION BY FIXED WING AIRCRAFT****1) DROPLET SPECTRUM: COARSE (VMD 351 µm; range 163 to 595 µm)**

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	19	40	81	124
>2.5 to 3.8 L/ha	29	53	107	174
>3.8 to 5 L/ha	35	64	140	232

**2) DROPLET SPECTRUM: VERY COARSE (VMD 461 µm; range 224 to 787 µm)**

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	14	29	62	96
>2.5 to 3.8 L/ha	19	38	77	124
>3.8 to 5 L/ha	23	44	91	152

**APPLICATION BY ROTARY AIRCRAFT****1) DROPLET SPECTRUM: COARSE (VMD 351 µm; range 163 to 595 µm)**

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	15	23	60	100
>2.5 to 3.8 L/ha	18	27	74	128
>3.8 to 5 L/ha	21	30	90	176

**2) DROPLET SPECTRUM: VERY COARSE (VMD 461 µm; range 224 to 787 µm)**

Rate of Application (L Garlon XRT/ha)	Buffer Zones (m) from Terrestrial Habitats (by Boom Height)			
	≤ 5 m	> 5-10 m	>10-20 m	>20-30 m
2.5 L/ha	11	19	49	81
>2.5 to 3.8 L/ha	14	22	58	100
>3.8 to 5 L/ha	17	24	65	117



### **Spray Drift Control**

Apply only when there is little or no hazard of spray drift since small quantities of product may injure susceptible crops and damage non-target habitat.

1. Do not apply Garlon XRT Herbicide when wind velocity and direction pose a risk of spray drift.
2. Do not apply when the wind speed is greater than 16 km/hr.
3. Garlon XRT Herbicide should not be applied at a boom height greater than 30 m above the target vegetation.
4. Aerial applications should be made as close to the ground as possible while maintaining adequate coverage.
5. For helicopter application use pressures at the lower end of the range recommended by the nozzle manufacturer. For fixed wing application use pressures at the higher end of the range recommended by the nozzle manufacturer.
6. Use a boom length less than 75% of the wing span or rotor length.
7. Coarse spray droplets are less prone to drift, therefore avoid spray dispersal systems and settings that produce a large proportion of fine droplets in the spray pattern. Delivery systems suggested for use in applying Garlon XRT Herbicide by air include: booms equipped with coarse droplet producing conventional disc and core nozzles (such as the D8-46 or D10-46), straight stream coreless nozzles (such as D6 or D8) and the Microfoil or Thru-Valve boom. Conventional disc and core nozzles should be oriented straight back or at an angle of less than 30° down.
8. Do not apply by air when an air temperature inversion exists. Such condition is characterized by little or no wind and an air temperature near the ground that is lower than at higher levels. A method must be used to detect air movement, lapse conditions or temperature inversions, such as the use of balloons, a spotter plane or a continuous smoke column at or near the site.

### **RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, Garlon XRT Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Garlon XRT Herbicide and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of Garlon XRT Herbicide or other Group 4 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 Dow AgroSciences Canada Inc. at 1-800-667-3852 or at [www.dowagro.ca](http://www.dowagro.ca).

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

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022717

Label Code: CN-28945-006-E

Replaces: CN-28945-005-E

Specimen label notes

Add Gateway adjuvant as a tank mix

Change cut stump application directions