# Credit®

**Liquid Herbicide**

## AGRICULTURAL AND INDUSTRIAL

CAUTION IRRITANT

Nufarm Agriculture Inc.
5507 1st Street SE
Calgary, Alberta T2H 1H9
1-800-868-5444

24 Hour Emergency Response Number
1-800-424-9300

Credit ® is a registered trademark
of Nufarm Limited

| GROUP | 9 | HERBICIDE |
|---|---|---|

**CONTAINS GLYPHOSATE SALT SOLUTION**

**GUARANTEE:**
Glyphosate, present as
isopropylamine salt ... 356 g/L

**READ THE LABEL AND BOOKLET BEFORE USING**

For use in pre-planting of all crops, pre-harvest applications in wheat, barley (including malting barley), oats, canola (rapeseed), flax (including low linolenic acid varieties), peas, lentils, dry beans, soybeans and forages.

REGISTRATION NO. 25866
PEST CONTROL PRODUCTS ACT

Nufarm

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## 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; 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.

No licence implied or granted under any non-Canada patent. Not for relabeling or repackaging.

## 2.0 TOXICOLOGICAL INFORMATION

Treat symptomatically.

## 3.0 PRECAUTIONS

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

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 website at: www.croplife.ca.

### FIRST AID:

**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 in eyes:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.



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

**EMERGENCY NUMBERS:**
For spills or transportation accidents, Chemtrex, 1-800-424-9300.
For health or environmental emergencies, Prosar, 1-877-325-1840.
For product and use information, Nufarm Agriculture Inc., 1-800-868-5444.

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

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

**DISPOSAL:**
**For 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.

**For 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 Returnable-Refillable Containers:**
For disposal, this container may be returned to the point of purchase (distributor/dealer).



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It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

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

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

## 4.0 GENERAL INFORMATION

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

NUFARM CREDIT LIQUID HERBICIDE, a water soluble liquid, mixes readily with water for application as a foliage spray for the control or destruction of most herbaceous plants. It may be applied through most standard industrial or field type sprayers after dilution and thorough mixing with water in accordance with the booklet instructions.

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

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

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

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

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



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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.

### 4.1 RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, NUFARM CREDIT LIQUID HERBICIDE is a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to NUFARM CREDIT LIQUID 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 NUFARM CREDIT LIQUID 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 and to report suspected resistance, contact Nufarm Agriculture Inc. at 1-800-868-5444 or at www.nufarm.ca.

## 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.



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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 MIXING AND APPLICATION EQUIPMENT INFORMATION

**MIXING:**
For ground or industrial type sprayers, fill the spray tank with one-half the required amount of water. Add the proper amount of herbicide (see "Weed Control" sections of this booklet - 7, 8) and mix well before adding the remaining portion of water. Placing the filling hose below the surface of the liquid solution will prevent excessive foaming. Removing hose from tank immediately will avoid back siphoning into water source. Use of mechanical agitators may cause excessive foaming. Bypass lines should terminate at the bottom of the tank.

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

**APPLICATION EQUIPMENT:**
**BOOM EQUIPMENT**
**For control of perennial weeds and woody brush and trees listed on this booklet using conventional boom equipment -** Apply this product in 50 to 300 L of clean water per hectare as a broadcast spray using no more than 275 kPa pressure. See "Weed Control" sections of this booklet (7,8) for rates to control specific weeds.

**For control of annual weeds listed on this booklet using conventional boom equipment -** Apply this product in 50 to 100 L of clean water per hectare as a broadcast spray, except as otherwise stated on this label using no more than 275 kPa pressure. See "Weed Control" sections of this booklet (7,8) for rates to control specific weeds.

**HAND HELD AND HIGH VOLUME EQUIPMENT (Use coarse sprays only)**
**For control of weeds and woody brush and trees listed in the "Weed Controlled" section of this label using knapsack sprayers or high volume spraying equipment utilizing handguns or other suitable nozzle arrangements –** Unless otherwise specified, make a 1% solution of this product in water (1 litre of this product in 100 litres of water) and apply to foliage of vegetation to be controlled.



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For best results, use a 2% solution (2 litres of this product in 100 litres of water) on harder to control perennials such as field bindweed, hemp dog-bane, milkweed and Canada thistle.

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff. Hand gun applications should be properly directed to avoid spraying desirable plants.

**SELECTIVE EQUIPMENT**

Selective equipment such as **WIPER** and **ROLLER** applicators can be used for weed control in soy and dry beans, orchards, vineyards, cranberries, strawberries and non-crop areas. For information regarding use of this product with selective equipment, refer to "Selective Equipment" section of this label (9.12).

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

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**

| | |
|---|---|
| Blue Grass (annual) | Poa annua |
| Crab Grass (large) | Digitaria sanguinalis |
| Downy Brome | Bromus tectorum |
| Giant Foxtail | Setaria faberii |
| Green Foxtail | Setaria viridis |
| Persian Darnel | Lolium persicum |
| Volunteer Barley | Hordeum spp. |
| Volunteer Corn | Zea Mays |
| Volunteer Wheat | Triticum spp. |
| Wild Oats | Avena fatua |

**Other**

| | |
|---|---|
| Dodder | Cuscuta spp. |

**Annual Broadleaf Weeds**

| | |
|---|---|
| Cow Cockle | Saponaria vaccaria |
| Fleabane (Canada) | Erigeron canadensis |
| Flixweed | Descurania sophia |
| Hempnettle | Galeopsis tetrahit |
| Kochia | Kochia scoparia |
| Lady's-Thumb | Polygonum persicaria |



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| | |
|---|---|
| Lamb's-Quarters (common) | Chenopodium album |
| Narrow-leaved Hawk's Beard | Crepis tectorum |
| Narrow-leaved Vetch | Vicia angustifolia |
| Prickly Lettuce | Lactuca scariola |
| Ragweed (common) | Ambrosia artemisiifolia |
| Redroot Pigweed | Amaranthus retroflexus |
| Russian Thistle | Salsola pestifer |
| Shepherd's Purse | Capsella bursa-pastoris |
| Sowthistle (annual) | Sonchus oleraceus |
| Stinkweed | Thlaspi arvense |
| Volunteer Canola | Brassica spp |
| Volunteer Flax | Linaria spp |
| Wild Buckwheat | Polygonum convolvulus |
| Wild Mustard | Sinapsis arvensis |

## 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 |
| 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 |



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| | |
|---|---|
| Cedar | Thuja spp. |
| Cherry | Prunus spp. |
| Douglas Fir | Pseudotsuga spp. |
| Hemlock | Tsuga spp. |
| Maple | Acer spp. |
| Mountain-fly honeysuckle | Lonicera villosa |
| Pine | Pinus spp |
| Poplar | Populus spp. |
| Raspberry / Salmonberry | Rubus spp. |
| Sheep laurel | Kalmia angustifolia |
| Snowberry (Western) | Symphoricarpos occidentalis |
| Sweet fern | Comptonia peregrina |
| Willow | Salix spp. |
| Withrod | Viburnum cassinoides |

**CROPLAND USES:**
**ALWAYS READ PRECAUTIONARY STATEMENTS, GENERAL INFORMATION, 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.

### 7.1ANNUAL WEED CONTROL WITH NUFARM CREDIT LIQUID HERBICIDE

| RATE L/HA | GROWTH STAGE | WEEDS CONTROLLED | COMMENTS (Apply in 50 - 100 L/ha water) |
|---|---|---|---|
| 0.75 | weeds up to 8 cm in height | wild oats, green foxtail, volunteer barley, volunteer wheat, volunteer canola (rapeseed), wild mustard, lady's-thumb, stinkweed | • for wild oats apply at 1 - 3 leaf stage<br>• add 350 mL of a surfactant registered for use such as Agral® 90, Ag Surf®, or Companion™.<br>• for heavy wild oat infestations use 1.0 L/ha rate. |
| 1.0 | weeds 8 cm to 15 cm in height | all annual grasses listed above;<br><br>all annual broad leaved weeds listed above plus flixweed* and kochia* | • add 350 mL of surfactant registered for use as listed above.<br><br>* suppression only. Refer to higher rates of this table or tank mix table (section 7.2) for control options. |



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| RATE L/HA | GROWTH STAGE | WEEDS CONTROLLED | COMMENTS (Apply in 50 - 100 L/ha water) |
|---|---|---|---|
| 1.25-1.9 | weeds up to 15 cm in height | all annual grasses listed above plus downey brome, giant foxtail, and persian darnel;<br><br>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<br>• for tankmix weed control options see section 7.2<br><br>* DO NOT use these rates on plants greater than 8 cm in height<br><br>** for 3 - 4 leaf stage use 1.9 L/ha rate<br><br>*** for weeds 8 cm to 15 cm in height use 1.9 L/ha rate |
| 2.25 | weeds up to 15 cm in height | all annual grasses listed above plus crab grass and annual blue grass.<br><br>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). |
| 3.5 | weeds over 15 cm in height | all annual grasses and broadleaved weeds listed above | • for additional annual broadleaved weed control options refer to tank mix table (section 7.2). |

Agral® is a registered trademark of Syngenta Crop Protection Canada Inc.
Ag Surf® is a registered trademark of Interprovincial Co-operatives Ltd.
Companion™ is a trademark of Dow AgroSciences Canada Inc.

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



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## 7.2 ANNUAL WEED CONTROL WITH NUFARM CREDIT LIQUID HERBICIDE TANK MIXTURES

FOR SUMMERFALLOW & MINIMUM TILLAGE SYSTEMS

| TANK MIXTURES | RATE L/HA | WEEDS CONTROLLED◆ | COMMENTS (Apply in 50-100L/ha water; add 350mL/ha of surfactant - see list in section 7.3) |
|---|---|---|---|
| NUFARM CREDIT LIQUID HERBICIDE<br>+<br>Banvel® | 0.75 -1.0<br>+<br>0.29 | volunteer cereal, wild oats, green foxtail,<br><br>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.<br><br>Use higher rate if weeds are beyond 8 cm in height<br><br>*Nufarm Credit Liquid Herbicide applied at l.0 L/ha rate only.<br><br>**Suppression only. See other tank mixtures for control options. |
| NUFARM CREDIT LIQUID HERBICIDE<br>+<br>Pardner® | 0.75 - l.0<br>+<br>1.25 | volunteer cereals, green foxtail, volunteer canola (rapeseed), wild mustard, lady's thumb, stinkweed, wild buckwheat*<br><br>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.<br><br>Use higher rate if weeds are beyond 8 cm in height<br><br>* use Nufarm Credit Liquid Herbicide at l.0 L/ha rate only for wild buckwheat control.<br><br>**1.0 L rate, suppression only. See other tank mixtures for control options. |
| NUFARM CREDIT LIQUID HERBICIDE<br>+<br>2,4-D# | 0.75 - 1.0<br>+<br>1.2 | volunteer cereals, wild oats* and green foxtail*, volunteer canola (rapeseed), wild mustard, flixweed, redroot pigweed, lady's thumb, stinkweed, kochia.<br><br>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.<br><br>Use higher rate if weeds are beyond 8 cm in height<br><br>*use Nufarm Credit Liquid Herbicide at 1.0 L/ha rate only for wild oat and green foxtail control.<br><br>**suppression only. See other tank mixtures for control options. |

◆ 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.



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Use only low volatile ester or amine formulations of 2,4-D.
Banvel ® is a registered trademark of BASF Ltd
Pardner ® is a registered trademark of Rhone-Poulenc

**7.3 SURFACTANT INFORMATION**

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

**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).

**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:



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## 8.1 PERENNIAL WEED CONTROL WITH NUFARM CREDIT LIQUID HERBICIDE

| WEED | APPLICATION | | | COMMENTS |
|---|---|---|---|---|
| | GROWTH STAGE | RATE (L/ha) | WATER VOLUME (L/ha) | |
| Quackgrass (control, light to moderate infestations) | 3 to 4 green leaves or more | 2.5 | 50 - 300 | • Apply in clean water using flat fan nozzles.<br>• Allow 3 or more days after treatment before tillage.<br>• Refer to "Quackgrass" notes in section 8.2.1 for more information.<br>• For higher water volumes (i.e. l50 - 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 | 2.5 - 7.0 | 50 - 300 | • Allow 3 or more days after treatment before tillage.<br>• Rates higher than 2.5 L/ha will provide more consistent, longer term control, especially with heavier infestations and/ or higher water volumes (i.e. 150-300 L/ha)<br>• Refer to "Quackgrass" notes in section 8.2.1 for more information. |
| Canada Thistle | rosette stage (summer-fallow) | 2.5 | 50 - 100 | • Apply in clean water using flat fan nozzles.<br>• Allow 10 or more days after treatment before tillage.<br>• Refer to "Canada Thistle" notes in section 8.2.3 for more information. |
| Canada Thistle | bud stage or beyond | 4.75 - 7 | 100 - 300 | • Allow 5 or more days after treatment before tillage. |
| Field Bindweed | full bloom or beyond | 7 - 12 | 100 – 300 | • Allow 7 or more days after treatment before tillage. |
| Common Milkweed* | bud to full bloom (preharvest)<br><br>bud to full bloom | 2.5<br><br>12 | 50 – 100<br><br>100 - 300 | • See preharvest application section, 9.9.0<br>• Allow 7 or more days after treatment before tillage.<br>• Reduced control may occur after full bloom.<br>• Milkweed may not all be in the correct stage, therefore, repeat treatments may be required. |
| Toadflax | Vegetative Stage (summerfal-low)<br><br>Bud to Full Bloom (preharvest) | 2.5 | 50-100 | • Apply in clean water using flat fan nozzles<br>• Allow 7 or more days after treatment before tillage in summerfallow<br>• For more information, see "Toadflax" notes (section 8.2.4), or preharvest control (section 9.9) |



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| | | | | |
|---|---|---|---|---|
| Alfalfa | Early bud to full bloom stage.<br><br>Fall applications only | 3.7 - 5.0 | 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.<br>• For spring applications and control in minimum tillage systems using a 2,4-D tank mix, see Section 8.2.6 |
| Dandelion | < 15 cm<br><br>> 15 cm<br><br>Rosette to full bloom (preharvest) | 2.5<br><br>3.7 - 5.0<br><br>2.5 | 50 - 100<br><br>50 – 300<br><br>50 - 100 | • Allow 3 or more days after treatment before tillage for all rates.<br>• Use the higher rate when infestations are heavy.<br>• Refer to "Dandelion" notes in Section 8.2.5 for more information.<br>• Allow 7 or more days after treatment before tillage. For more information, see preharvest control section (9.9.0) |
| Foxtail barley | Seedling to heading | 2.5-5.0 | 50 -100 | • Allow a minimum of 1 day after treatment before tillage or seeding.<br>• 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 | 7 - 12 | 100 - 300 | • Allow 7 or more days after application before tillage. |

***NOTE:** For spot treatment, mix 120 mL of product in 5L clean water per 100 $m^2$. (2.5 - 12 L/ha is approximately equivalent to 25 - 120 mL/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 2.5L/ha of this product in spring prior to seeding. Apply in 50 to 100 L/ha of clean water as described in the preceding table. Delay application until the majority of quackgrass plants have 4-5 green leaves. This stage usually occurs 1 to 4 weeks later on fall tilled ground than on undisturbed ground. Reduced control may result on ground tilled deeper than 15 cm.

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

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

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

### 8.2.2 SURFACTANT INFORMATION

The following is a list of approved surfactants for use with Nufarm Credit Liquid Herbicide for control of quackgrass:



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| | |
|---|---|
| Agral 90 | Companion |
| Ag Surf | Enhance® |

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

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### 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:

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

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

**Nufarm Credit Liquid Herbicide plus Banvel Tank Mixtures**

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

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

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

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

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

### 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:

- Conduct summerfallow tillage as usual and perform the last tillage operation between July 10-21.
- Allow toadflax to regrow for a minimum of 4-5 weeks until they are a minimum of 15 cm tall and at a lush green vegetative stage.



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**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 2.5 - 5.0 L/ha NUFARM CREDIT LIQUID HERBICIDE and 1.2 - 2.4 L/ha of any 500 g/L 2,4-D amine or low volatile ester formulation in 100-200 L water/ha. (Adjust product rates accordingly for other 2,4-D formulations).

For spring applications, use only the low rate of 2,4-D (i.e. 1.2 L/ha) and 2.5 - 5.0 L/ha NUFARM CREDIT LIQUID 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 NUFARM CREDIT LIQUID 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 NUFARM CREDIT LIQUID HERBICIDE"(8.1).

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

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

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

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

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



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**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 and strawberry, and using selective equipment in soy and dry beans, orchards, vineyards, cranberries and strawberry (refer to specific sections below for more information). **For specific instructions on weed control in the following cropping situations, always refer to the Annual and Perennial Weed Control sections (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 (20-25 cm tall for quackgrass and Canada thistle) before application and ensure they have a high proportion of green coloration. Straw should be removed or evenly spread to allow for proper regrowth and spray coverage. Heavy frosts prior to application may decrease control.

### 9.3 SPOT TREATMENT (IN-CROP)

This product can be applied as an in-crop spot treatment in barley, corn, oats, soybeans, wheat, strawberry, blueberry, forage grasses and legumes including seed production. Applications should be made using the same rates and at the same growth stages as listed in the weed control tables (7.1, 8.1) or use a 1% solution for annual weeds and quackgrass and a 2% solution for other perennial weeds (a 1% solution equals 1 litre NUFARM CREDIT LIQUID HERBICIDE in 100 litres of spray solution). One or two per cent solutions should be applied to wet, but not run-off. Applications can be made using a boom sprayer, hose and handgun, or hand sprayer in accordance with instructions in the “Application Equipment” section (5.2).



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### 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 NUFARM CREDIT LIQUID 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, oilseeds, pulses, forages, corn and potatoes)**

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

### MINIMUM AND ZERO TILLAGE TANK MIXTURES

**9.5.1 Nufarm Credit Liquid 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 NUFARM CREDIT LIQUID HERBICIDE Tank Mixtures table for information (section 7.2).

**9.5.2 Nufarm Credit Liquid Herbicide plus Pursuit®** can be applied prior to, or after, seeding, but before crop emergence in soybeans. NUFARM CREDIT LIQUID 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 L of water/ha, following the instructions on the Pursuit herbicide label.

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

**DO NOT APPLY AFTER CROP EMERGENCE**

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## 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 cm in height and a maximum number of seedlings or shoots have emerged. Application can be made immediately before, during or after seeding, but before crop emergence.

## 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 cm in height but before emergence of seed head. The crop in the treated areas will be killed. Take care to avoid drift outside target area for the same reason.

## 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, NUFARM CREDIT LIQUID 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.

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.

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



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Apply only during the period 7-14 days (or 3-7 days for forage applications) before harvest to ensure best weed control and to maximize harvest management benefits. Earlier application may reduce crop yield and/or quality, and may lead to excess glyphosate residues in the crop.

Overspray or drift to important wildlife habitats such as bodies of water, wetlands (e.g. sloughs), shelterbelts, woodlots and other cover on the edges of fields frequented by wildlife, should be avoided. Leave a 15 meter buffer zone between the last spray swath and the edge of any of these habitats.

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

**DO NOT APPLY BY AIRCRAFT.**

### 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 | Less than 30 | Pods are green to yellow; most seeds are yellow to brown. |
| FLAX (INCLUDING LOW LINOLENIC ACID VARIETIES) | Less than 30 | Majority (75%-80%) of bolls are brown. |
| PEAS | Less than 30 | Majority (75%-80%) of pods are brown. |
| LENTILS | Less than 30 | Lowermost pods (bottom 15%) are brown and seeds rattle. |
| DRY BEANS | Less than 30 | Stems are green to brown in color; pods are mature (yellow to brown in color); 80%-90% leaf drop (original leaves). |
| SOYBEANS | Less than 30 | Stems are green to brown in color; 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 listed annual or perennial weeds prior to planting, or as a post directed spray in established nurseries or shelterbelts of the following species:

**Deciduous**

Ash - Fraxinus spp.
Caragana - Caragana 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.



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**Coniferous**

Fir - Abies spp.
Juniper - Juniperus 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 35 litres of this product per hectare per year.

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

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

**WEED CONTROL IN TREE, VINE AND BERRY CROPS:**

| Crop | Rate (L/ha) | Pre-Harvest Interval (days) | Max. Appl. per Yr. | Weeds Controlled | Comments (Refer to sections 7.1 and 8.1 for specific rates for weed control) |
|---|---|---|---|---|---|
| Apples<br>Apricot<br>Cherry (Sweet/sour)<br>Peaches<br>Pears Plums | 2.25-12 | 30 | 3 | Annual and perennial weeds | |



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| Crop | Rate (L/ha) | Pre-Harvest Interval (days) | Max. Appl. per Yr. | Weeds Controlled | Comments (Refer to sections 7.1 and 8.1 for specific rates for weed control) |
|---|---|---|---|---|---|
| Apples<br>Grapes | **Tank Mix**<br>2.25-12<br>+<br>Simazine<br>2.0-4.5 kg ai/ha | - | 1 | Annual and perennial weeds | • Will provide season-long pre-emergent control<br>• Do not apply to coarse, sandy or gravelly soil<br>• Use according to the more restrictive label direction for each product in the mix<br>• DO NOT apply to orchards or vineyards that have been established less than 1 or 3 years, respectively<br>• Simazine rate is equivalent to 2.25-5.0 kg/ha Princep® Nine-T®, or 4.0-9.0 kg/ha Simadex® |
| Grapes | 2.25-12 | 14 | 3 | Annual and perennial weeds | • Remove all sucker growth from the spray zone before spraying, except for the Concord variety of grape<br>• Suckering should be conducted within 2 weeks prior to application<br>• Do not apply to vines which have been established less than 3 years |
| Highbush (cultivated) blueberry | 2.8-5.6 | 30 | 1 | Quack-grass | • Use as a directed spray, with no more than 275 kPa pressure |
| Lowbush blueberry | 1-2% solution (spot application) | Apply in non-bearing year only | 1 | Woody brush (section 6.3) | • Apply as a directed spray in mid-summer of the vegetative (non-bearing) year<br>• See section 9.3 for instructions on spot treatments |
| Filberts<br>Hazelnut (established plantations) | 2.25-3.5 | 14 | - | Annual weeds | • Use as a directed spray, with no more than 275 kPa pressure |
| Walnut<br>Chestnut<br>Japanese heartnut | 2.25-12 | - | 2 | Annual and perennial weeds | • Apply late spring and fall, post-harvest but prior to a killing frost<br>• Apply in 200-300 L water as a directed spray, using no more than 275 kPa pressure<br>• Apply alternatively as a 2% wiper solution (see Wiper Applicators, section 9.12) |



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| Crop | Rate (L/ha) | Pre-Harvest Interval (days) | Max. Appl. per Yr. | Weeds Controlled | Comments (Refer to sections 7.1 and 8.1 for specific rates for weed control) |
|---|---|---|---|---|---|
| Cranberry | 20% Solution (1L NUFARM CREDIT LIQUID HERBICIDE+ 4L water) | 30 | 1 | Annual and perennial weeds | • Apply using wick or wiper applicators (section 9.12) |
| Strawberry | 1-2% solution (spot application) 33% solution (wiper application) | 30 | 1 | Emerged perennial weeds | • Apply when weeds are at a susceptible growth stage (see sections 8.1, 2)<br>• See section 9.3 for instructions on spot treatments<br>• See section 9.12 for instructions on wiper applicators |
| Sugar beets | 1-2% solution (spot application) | Treated crop MUST NOT be harvested | 1 | Dodder species | • Apply when dodder is vigorously growing but before flowering.<br>• See section 9.3 for instructions on spot treatments |

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## 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 strawberry. Applications must be made before initial pod set in soy and dry beans. (It may also be used in any industrial, tree planting and non-crop site specified on this label. 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 desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that wiper contact point is at least 5 cm above the desirable vegetation. Droplets or foam of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications should be made when the weeds are a minimum of 15 cm above the desirable vegetation. Best results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. See the Weed Control tables in this label (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 0.5 to 1.0 L of this product in 10 L water to prepare a 5 to 10% solution. Roller speed should be maintained at 50 to 150 rpm.

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

## 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.



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**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 NUFARM CREDIT LIQUID HERBICIDE

| WEEDS | GROUND APPLICATION** | | | COMMENTS |
|---|---|---|---|---|
| | BOOM APPLICATION | | Hand Held High Volume Application % Solution | |
| | Rate * L / ha | Water Vol.* L /ha | | |
| **ANNUAL GRASSES AND BROADLEAVES** | 2.25 - 3.5 | 50 - 100 | 1 | • Actively growing weeds |
| **PERENNIAL WEEDS** | | | | |
| Quackgrass | 2.5<br>4.75 - 7.0 | 50 - 300<br>50 - 300 | 1<br>2 | • Actively growing weeds<br>• 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) | 4.75 - 7.0 | 100 - 300 | 2 | • Higher rate for long term control and for heavy infestations |
| Purple loosestrife | 6.0 | 300-600 | 1 - 2 (or 33% for wiper application) | • See section 10.2.3 for instructions on purple loosestrife applications |
| Other Perennials | 7.0 - 12 | 100 -300 | 2 | • Summer through fall is optimum |
| **BRUSH AND TREES** | | | | |
| Birch, Cherry, Poplar, Western Snowberry, Willow | 3.0 - 6.0 | 100 - 300 | 1 - 2 | • Summer through early fall (see section 10.2) |
| Maple, Raspberry/ Salmonberry, Alder | 6.0 | 100 - 300 | 2 | • Late Summer through fall<br>• Fall is optimum |
| **TURF RENOVATION** | | | | |
| Annual and Perennial Weeds | 2.5 - 12.0 | 100 - 300 | 1 - 2 | • Use higher end of the rate range for perennials |



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| WEEDS | GROUND APPLICATION** | | | COMMENTS |
|---|---|---|---|---|
| | BOOM APPLICATION | | Hand Held High Volume Application % Solution | |
| | Rate * L / ha | Water Vol.* L /ha | | |
| **ROADSIDE VEGETATION**<br><br>(1-2 m wide along shoulders) Annual Weeds (refer to Tank-Mix sections on product labels for specific weeds controlled) | 1) 0.75-1.0 + 1.25-2.5L DyCleer® 480<br><br>or<br><br>2) 0.75-1.0 + 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<br><br>• For 2,4-D amine formulations with a different guarantee, adjust the rate accordingly<br><br>• No application to standing water. |
| **RESIDUAL CONTROL**<br><br>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) | 2.5 - 12 + a) 2.5-5.6 kg Simazine 80W<br><br>or<br><br>+ b) 4.0-9.0 L Simadex® Flowable | 200-400 | - | • Do not apply to coarse, sandy or gravelly soil. One application per year.<br>• Use according to the most restrictive label directions for each product in the mixture.<br>• 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 Crop Protection Canada Inc.
Simadex® is a registered trademark of Bayer CropScience Inc.



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## 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 30-45 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 3 to 6 L of this product per hectare. Use ground boom or boomless, or mist blower equipment, or apply as a 1 to 2% solution using hand-held high volume equipment. Apply as directed in the recommended volume of clean water to foliage of actively growing vegetation. Use the 6 L/ha rate for Maple, Alder and Willow* species, as well as for hard to control perennial weed species.
(* Suppression only)

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

### 10.2.2 AERIAL APPLICATIONS: FOR INDUSTRIAL RIGHTS-OF-WAY ONLY

**Directions for use:**

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

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



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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 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 Nufarm Agriculture Inc. Product Info Line at 1-800-868-5444 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this product must meet and/or conform to the following:

**Volume:**
Apply the recommended rate in a minimum spray volume 30-100 litres per hectare.

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

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.



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

### 10.2.3 PURPLE LOOSESTRIFE CONTROL

- DO NOT TREAT PLANTS OVER OPEN WATER. NUFARM CREDIT LIQUID 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 ha) monocultures of loosestrife, work from the periphery inward in successive years to allow competing vegetation to invade the treated area.
- A long-term control strategy should include measures to control both established plants and seedlings. Sprayed areas should be monitored to determine the appropriate follow-up management. Early detection and treatment of second and third generation seedlings is important to prevent re-infestation of purple loosestrife. Desirable native plant communities will then have a chance to become re-established.

### 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 “Weeds Controlled” section of this booklet. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray and proper translocation into underground plant parts. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts.

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



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## 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, at a rate of at least 0.5 mL (either undiluted or 1:1 with water) per 5cm tree diameter at breast height (DBH). The cuts should be spaced evenly around the tree and below all major branches. Application may be made at any time of year, except when cold temperatures prevent adequate penetration of injection equipment, or in the spring during periods of heavy sap flow. Control of tree species with tree diameters greater than 20 cm may not be acceptable at this rate. Total control may not be evident for 1-2 years following treatment.

**A partial list of species controlled includes:**

| | |
|---|---|
| ALDER - Alnus spp | HEMLOCK - Tsuga spp. |
| BIRCH - Betula spp. | MAPLE* - Acer spp. |
| CEDAR - Thuja spp. | PINE - Pinus spp. |
| CHERRY - Prunus spp. | POPLAR - Populus spp. |
| DOUGLAS FIR - Pseudotsuga 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 at least 0.5 mL product for every 5cm DBH. Do not cover the remaining area nor any exposed roots, as this product does not penetrate bark well. This treatment may be used at any time of year, except during periods of heavy sap flow or when low temperatures prevent solution application due to freezing. A water soluble colourant may be added to the solution as a means of indicating which surfaces have been treated. Total control may not be evident until 1-2 years after treatment.

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

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