

GROUP

4

HERBICIDE

**BANVEL® II HERBICIDE**

**COMMERCIAL (AGRICULTURAL)**

PRODUCT NOT FOR RE-SALE OR DISTRIBUTION

**FOR USE ONLY ON PREMISES OWNED OR OPERATED BY THE UNDERSIGNED. THIS LABEL IS TO BE ATTACHED TO PEST CONTROL PRODUCTS BEARING THE ENVIRONMENTAL PROTECTION AGENCY REGISTRATION NO. 7969-137**

**GUARANTEE:** Dicamba ..... 480 g/L  
(present as diglycolamine salt)

**GROU EQUIVALENCY CERTIFICATE NUMBER: 006**

**IMPORT FOR OWN USE CERTIFICATE NUMBER:**

**CAUTION**



**POISON**

**WARNING - EYE IRRITANT**

**IN CASE OF EMERGENCY ENDANGERING LIFE OR PROPERTY  
INVOLVING THIS PRODUCT, CALL DAY OR NIGHT  
1-800-454-2673**

**NET CONTENTS:** 1 to 1000 L

**E.P.A. Est. No. 55947-TX-1**

**READ THIS LABEL AND ATTACHED BROCHURE BEFORE USING THIS PRODUCT IN CANADA  
(DISREGARD NON-CANADIAN LABEL).**

**KEEP OUT OF REACH OF CHILDREN.**

**BANVEL® II** is a registered trademark of BASF Corporation, used under license by BASF Canada Inc.

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## ABOUT BANVEL II

**Banvel II** Herbicide controls broadleaf weeds in cereals, corn, reduced tillage (prior to seeding and reduced tillage fallow), pastures and rangeland grasses, crop-free land (summerfallow and stubble), red fescue, canary grass, seedling grasses grown for seed and forage, and low bush blueberries.

## GENERAL PRECAUTIONS

1. **Banvel II** should not be applied on or near desirable trees or plants.
2. Apply **Banvel II** when air temperature is between 10 and 25°C. Do not apply when there is a risk of severe fall in night temperature after use.
3. Do not contaminate domestic or irrigation water. Thoroughly clean application equipment.
4. Do not treat areas where movement of the chemical into the soil or surface washing may bring **Banvel II** into contact with roots of desirable plants.
5. Crop damage can occur if the chemical is applied at any time other than the recommended crop stage.

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

6. Unless otherwise specified, do not use additives such as oil, wetting agents, emulsifiers, detergents, spreaders, sticking agents, or dispersing agents with **Banvel II** on crops.
7. For information on feeding and grazing of beef and dairy cattle on treated vegetation and for recommendations on treatment/harvest intervals, refer to the Table on Grazing Restrictions.
8. If **Banvel II** is tank-mixed with another product, such as 2,4-D, consult that product's label for additional safety precautions, restrictions, application rates, timings and additional weeds controlled.
9. Ensure that spray equipment used to apply **Banvel II** is properly cleaned before re-using to apply any other chemicals. See section on suggested procedure for cleaning spray equipment.

## SPRAY DRIFT PRECAUTIONS

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

1. Treat when wind is 3 to 15 km/hr. Do not apply during periods of dead calm or when weather conditions may cause drift from target areas to adjacent sensitive crops. Leave an adequate buffer zone between treatment areas and sensitive plants.
2. Use coarse sprays since they are less likely to drift than fine sprays. Select nozzles which minimize amounts of the fine spray particles. Keep the spray pressure below 150 kPa and the spray volume above 220 L/ha unless otherwise required by the nozzle manufacturer.
3. Do not spray when the temperature is expected to exceed 30°C.
4. Avoid spraying under conditions of high humidity or fog.

## **DIRECTIONS FOR USE**

### **CEREALS (not underseeded to legumes)**

#### **Treatment Notes**

1. For best performance, spray when weeds are in the 2 to 3 leaf stage and rosettes are less than 5 cm across.
2. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.
3. Crop damage can occur if application is made at any time other than the recommended crop stage.
4. Do not apply **Banvel II** or **Banvel II** tank-mixes if crop is under-seeded to legumes.

## **APPLICATION DIRECTIONS**

### **Ground Application**

Apply **Banvel II** or **Banvel II** tank-mixes in at least 110 litres of water/ha.

### **Aerial Application (Western Canada Only)**

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 *Basic Knowledge Requirements for Pesticide Education in Canada: Applicator Core* and *Aerial Module*, developed by CAPCO.

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, obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

1. **Banvel II** or **Banvel II** phenoxy herbicide tank-mixes may be aerially applied in not less than 20 litres of water/ha.
2. Apply **Banvel II** alone at 230 mL/ha or tank mix **Banvel II** at 230 mL/ha with the recommended rate of the phenoxy herbicides specified on this label.
3. Treat when wind is 3 to 15 km/hr. Do not apply during periods of dead calm or when weather conditions may cause drift from target areas to adjacent sensitive crops.
4. Do not use nozzle pressure above 200 kPa.
5. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, or shelterbelt.
6. Unless otherwise specified, do not use any additives with **Banvel II**.

## Weeds Controlled

Weeds Controlled	Banvel II Rate	Tank Mix
Buckwheat, <i>Tartary</i> buckwheat, <i>wild</i> cockle, <i>cow</i> Cleavers ( <b>higher rate only</b> ) lady's thumb sow-thistle, <i>perennial (top growth only)</i> smartweed, <i>green</i> spurry, <i>corn</i> thistle, <i>Canada (top growth only)</i>	<b>Banvel II</b> alone at 230-290 mL/ha	None
<u>All of the above plus:</u> Burdock ( <b>young seedlings</b> ) canola, <i>volunteer</i> * cocklebur flixweed hemp-nettle** kochia pigweed, <i>redroot</i> pigweed, <i>Russian</i> radish, <i>wild</i> shepherd's-purse sunflower, <i>volunteer</i> *** thistle, <i>Russian</i>	<b>Banvel II</b> at 230 mL/ha +	2, 4-D amine <b>OR</b> MCPA amine <b>OR</b> MCPA K
<u>All of the above plus:</u> Chickweed; Hemp-nettle** Spurry, <i>corn</i> ; stinkweed; Sunflower, <i>volunteer</i> ***	<b>Banvel II</b> at 230 mL/ha +	Sencor <b>OR</b> Lexone
<u>All of the above plus:</u> Buckwheat, <i>wild</i> ; canola, <i>volunteer</i> ; * sow- thistle, <i>perennial (top growth only)</i>	<b>Banvel II</b> at 230 mL/ha +	Ally

\* Best results will be obtained if application is made prior to bolting of canola, when this weed is at the 2 to 4 leaf stage.

\*\* Use **Banvel II** + MCPA K for hemp-nettle control. Apply at the 2 to 3 leaf stage of weed for best control. Hemp-nettle may not be controlled if application is made at a more advanced stage of crops and weeds.

\*\*\* Depending on the growing conditions, control may be slightly delayed.

## APPLICATION DIRECTIONS

**Banvel II** may be applied to:

- Spring Wheat
- Spring Barley
- Winter Wheat
- Oats
- Spring Rye

The following sections describe application directions for these crops.

## Spring Wheat

Herbicide Mix	Rate/ha	Crop Stage
<b>Banvel II</b> alone	230-290 mL/ha	2-5 leaf
+ 2,4-D amine	850 mL/ha (500 g/L formulation)	2-5 leaf
or MCPA amine	850 mL/ha (500 g/L formulation)	2-5 leaf
or MCPA K	1.1 L/ha (400 g/L formulation)	2-5 leaf
or Sencor 500*	275-425 mL/ha**	2-3 leaf
or Lexone DF*	275 g/ha	2-3 leaf
or Ally***	5 g/ha	2-5 leaf

\* *Sencor/Lexone tank-mixes apply to Western Canada only. Application may be delayed until the 4-leaf stage of the crop, however, crop tolerance may be reduced. Apply **Banvel II** at 230 mL/ha with Sencor/Lexone.*

\*\* *Use the higher rate of Sencor 500 for control of volunteer sunflowers.*

\*\*\* *All tank-mixes apply to Western Canada only. Apply **Banvel II** at 230 mL/ha with Ally. Ensure that Ally is completely in suspension in the spray tank before adding **Banvel II**. Do not add a surfactant.*

## Spring Rye

Herbicide Mix	Rate/ha	Crop Stage
<b>Banvel II</b> alone	230-290 mL/ha	2-3 leaf
+ 2,4-D amine	850 mL/ha (500 g/L formulation)	2-3 leaf

## Spring Barley

Herbicide Mix	Rate/ha	Crop Stage
<b>Banvel II</b> alone	230-290 mL/ha	2-5 leaf
+2,4-D amine	850 mL/ha (500 g/L formulation)	2-5 leaf
or MCPA amine	850 mL/ha (500 g/L formulation)	2-5 leaf
or MCPA K	1.1 L/ha (400 g/L formulation)	2-5 leaf
or Sencor 500*	275-425 mL/ha**	2-3 leaf
or Lexone DF*	275 g/ha	2-3 leaf
or Ally***	5 g/ha	2-5 leaf

\* *Sencor/Lexone tank-mixes apply to Western Canada only. **NOTE:** Do not use on Klondike barley.*

\*\* *Use the higher rate of Sencor 500 for control of volunteer sunflowers.*

\*\*\* *All tank-mixes apply to Western Canada only. Apply **Banvel II** at 230 mL/ha with Ally. Ensure that Ally is completely in suspension in the spray tank before adding **Banvel II**. Do not add a surfactant.*

## Winter Wheat

Herbicide Mix	Rate/ha	Crop Stage
<b>Banvel II</b> alone	230-290 mL/ha	15-25 cm tall or before shot- blade stage
+ 2,4-D amine	850 mL/ha (500 g/L formulation)	15-25 cm tall or before shot- blade stage
or MCPA amine	850 mL/ha (500 g/L formulation)	
or MCPA K	1.1 L/ha (400 g/L formulation)	

## Oats

Herbicide Mix	Rate/ha	Crop Stage
<b>Banvel II</b> alone	230-290 mL/ha	2-5 leaf
+ MCPA amine	850 mL/ha (500 g/L formulation)	2-5 leaf
or MCPA K	1.1 L/ha (400 g/L formulation)	2-5 leaf

## Grazing Restrictions

1. Following treatment with **Banvel II** plus any other herbicide tank-mix: Do not graze or harvest for livestock feed prior to crop maturity; sufficient data are not available to support such use.
2. Following treatment with **Banvel II** or **Banvel II** plus 2,4-D, follow the grazing restrictions below:

## Hay Making And Grazing Restrictions For Dairy Cattle

Rate/ha	Delay Between Treatment & Hay-Making/Grazing
Up to 1.25 L <b>Banvel II</b>	0 days



## Hay Making, Grazing and Slaughter Restrictions For Meat Animals

Number of Days Between Banvel II Application & Hay- Making or Consumption	Slaughter Restrictions
Vegetation consumed <i>within 30 days</i> of treatment	feed animal untreated diet for 30 days before slaughter
Vegetation consumed <i>30 days after</i> treatment	no restrictions on slaughter

## FIELD CORN

### Treatment Notes

#### DO NOT APPLY BY AIR.

1. Apply **Banvel II** or **Banvel II** tank-mixes in 220 to 350 litres of water/ha at a pressure of 150 to 275 kPa. Use coarse sprays.
2. Keep spray mixture in suspension at all times. If mixture is allowed to settle, thoroughly agitate the mixture before spraying.
3. Do not apply to sweet corn.
4. Unless otherwise specified, do not use additives such as oil, wetting agents, emulsifiers, detergents, spreaders, sticking agents, or dispersing agents on corn with **Banvel II**.
5. Corn height refers to the crop as it stands, not leaf-extended.
6. When using drop pipes (drop nozzles), direct the spray beneath the lower leaves of the corn and onto the weeds and soil. Do not apply to corn over 50 cm in height.
7. Apply no later than 2 weeks prior to tassel emergence when using **Banvel II** alone up to 50 cm.
8. For the best control of annuals, spray when they are actively growing and in the seedling stage. Poor results may occur if weeds are well advanced at the time of application.
9. When applying **Banvel II** herbicide adjacent to sensitive crops, apply as a pre-emergent or early post-emergent treatment to avoid potential drift onto these sensitive crops.
10. When applied as a tank-mix combination, read and observe all label directions, including rates, restrictions and grazing limitations for each product used in the tank-mix. Follow the more stringent label precautionary and PPE measures for mixing/loading/applying, and label statements pertaining to environmental protection, such as buffer zones, stated on all tank-mix product labels.

## BANVEL II/LIQUID NITROGEN

Pre-emergent applications of **Banvel II** are generally compatible with most liquid nitrogen fertilizers. To determine compatibility, mix all components of the finished spray in proportionate quantities in a small jar before mixing in the spray tank. If the herbicides do not ball-up or form flakes, sludge, jelly, oily films or layers, or other precipitates within 5 minutes after mixing, the tested spray-mix is compatible.

### Weeds Controlled

Weeds Controlled	Banvel II Rate	Tank Mix
bindweed, <i>field</i> ** buckwheat, <i>Tartary</i> buckwheat, <i>wild</i> cleavers cockle, <i>cow</i> fleabane, <i>Canada</i> *** lady's-thumb lamb's-quarters* mustard, <i>hare's-ear</i> mustard, <i>Indian</i> mustard, <i>tumble</i> mustard, <i>wild</i> mustard, <i>wormseed</i> pigweed, <i>redroot</i> * pigweed, <i>Russian</i> ragweed, <i>common</i> * ragweed, <i>false</i> ragweed, <i>giant</i> sow-thistle, <i>perennial</i> ** spurry, <i>corn</i> smartweed, <i>green</i> thistle, <i>Canada</i> ** velvetleaf	<b>Banvel II</b> alone at 600 mL – 1.25 L/ha	none

\* Including atrazine-resistant species.

\*\* Apply **Banvel II** annually for three years at the flowering stage of bindweed and the budding stage of thistles.

\*\*\* Post-emergence application only.

## PRE-EMERGENCE TREATMENT

### Eastern Canada Only

**Banvel II** can be used alone at 1.25 L/ha or in tank-mixes with the following herbicides for additional broadleaf and grassy weed control.

Herbicide	Rate/ha
Dual	2.0 - 2.75 L
Dual II	2.0 - 2.75 L
Frontier	1.1 - 1.4 L
Primextra II Magnum	3.0 - 4.0 L
Atrazine 480*	2.10 L
Prowl 400**	4.20 L
Atrazine 480* + Dual II	2.10 L + 2.0 L

\* Other atrazine formulations will require a rate calculation adjustment according to percent active ingredient

\*\* Other pendimethalin formulations will require a rate calculation adjustment according to percent active ingredient.

### Pre-Emergence Treatment Notes

- Apply **Banvel II** tank-mixes as broadcast ground treatments after planting but before weeds and corn emerge.
- Apply to medium to fine textured soils containing more than 2.5% organic matter.
- Do not use on sandy or sandy loam soils.
- Avoid direct chemical contact with the corn seed. If you plan to apply **Banvel II** prior to corn emergence, be sure to place the corn seeds 4 cm or more below the soil surface. If seeds are planted less than 4 cm below the soil surface, delay application of **Banvel II** until the spike stage
- Do not incorporate. If applications are made during planting, apply **Banvel II** far enough behind the planting equipment to avoid incorporation by the planter wheel or other covering device. If soil crusting makes it necessary to use a rotary hoe after a pre-emergence treatment, delay hoeing the soil more than 1.3 cm deep.
- Always consult the tank mix partner label for further limitations and restrictions (especially re: soil type).

### POST-EMERGENCE TREATMENT

**Banvel II** or **Banvel II** tank-mixes can be applied as “overlay” to corn previously treated with any other broadleaf or grass herbicide. The 1.25 L rate of **Banvel II** as “overlay” is particularly effective in controlling velvetleaf and providing extended residual control of other late germinating, deep rooted annuals. **Note:** Unless otherwise specified, do not use additives such as oils, wetting agents, or sticking agents.

**Banvel II alone**  
**Spike to 5-leaf corn**  
**Eastern and Western Canada**

Herbicide	Rate/ha	Corn Stage	Weed Stage
Banvel II alone	1.25 L/ha	Spike to 5-leaf	Pre-emergence to 2-leaf <sup>1</sup>

<sup>1</sup>For best performance, spray when the broadleaf weeds are emerged and up to the 2-leaf stage of their development.

**Banvel II Tank-mixes**  
**Western Canada (Prairie Provinces only)\***

Herbicide	Rate/ha	Corn Stage	Weed Stage
Banvel II + Accent + non-ionic surfactant such as Agral®, Agsurf® or Citowett® Plus	0.6 L (288 g ai/ha) + 33 g (25 g ai/ha) + 0.2% v/v	Spike to 6-leaf	Post-emergence to 6-leaf

\*Single post-emergent spray; ground application only; do not apply this tank mix within 30 days of harvest.

**Banvel II tank-mixes**  
**Eastern Canada only**

Herbicide	Rate/ha	Corn Stage	Weed Stage
Banvel II + Frontier	1.25 L + 1.1 - 1.4 L	Spike to 3-leaf	Pre-emergence to 2-leaf***
Banvel II + Atrazine 480*	1.25 L + 2.10 L	Spike to 5-leaf	Pre-emergence to 2-leaf
Banvel II + Atrazine 480* + Dual II	0.6 - 1.25 L + 2.3 L + 2.0 - 2.75 L	Spike to 2-leaf	Emergence to 2-leaf
Banvel II + Primextra II Magnum	0.6 - 1.25 L + 3.0 - 4.0 L	Spike to 2-leaf	Emergence to 2-leaf
Banvel II + Prowl 400**	0.6 - 1.25 L + 4.20 L	Spike to 4-leaf	Pre-emergence to 2-leaf
Banvel II + Ultim 75% DF + non-ionic surfactant	0.60 L + 1 bag + 0.2% v/v	Spike to 6-leaf	Emergence to 6-leaf
Banvel II + Elim EP + non-ionic surfactant	0.60 L + 60 g + 0.2% v/v	Spike to 3-leaf	Emergence to 4-leaf
Banvel II + Dual II	0.6 - 1.25 L + 2.0 - 2.75 L	Spike to 2-leaf	Emergence to 2-leaf
Banvel II + Prowl 400** + Elim EP + non-ionic surfactant	0.625 L + 2.5 L + 50 g + 0.2% v/v	Spike to 3-leaf	Emergence to 4-leaf

\* Other atrazine formulations will require a rate calculation adjustment according to percent active ingredient

\*\* Other pendimethalin formulations will require a rate calculation adjustment according to percent active ingredient.

\*\*\* For annuals, apply before 2-leaf stage.

**Banvel II tank-mixes**  
**Eastern Canada and the Province of Manitoba\***

**Banvel II** can be tank mixed with Option 35 DF herbicide and applied as a post-emergence application to field corn grown in Eastern Canada and the province of Manitoba. Tank mixing **Banvel II** with Option 35 DF will provide enhanced control of annual broadleaf weeds.

Option 35 DF herbicide is to be used in conjunction with Hasten spray additive at 1.75 L/ha plus liquid nitrogen fertilizer (28% UAN) at a rate of 2.5 L/ha. Use of a spray-grade liquid nitrogen fertilizer is recommended.

Herbicide	Rate/ha	Corn Stage	Weed Stage	Weeds Controlled
<b>Banvel II + Option 35 DF + Hasten spray additive + liquid nitrogen fertilizer (28% UAN)</b>	0.3 L + 100 g + 1.75 L + 2.5 L/ha	1 to 8-leaf	Consult the Option 35 DF label for the recommended leaf stage of weeds at application. For best results, apply to emerged, young, actively growing weeds.	<p><b>Perennials</b> quackgrass</p> <p><b>Annual Grasses</b> foxtail, bristly foxtail, green foxtail, yellow grass, barnyard grass, large crab millet, proso panicum, fall witchgrass</p> <p><b>Annual Broadleaf Weeds</b> chickweed, common lamb's-quarters mustard, wild mustard, wormseed nightshade, Eastern black pigweed, redroot ragweed, common (suppression only) velvetleaf</p>

*\*Ground application only. Do not apply by air. Make only one application per season. Apply in a minimum of 220 L/ha of water and at a pressure of 175 – 275 kPa.*

**Spike to 50 cm standing corn**  
**Eastern and Western Canada**

Herbicide	Rate/ha	Corn Stage	Weed Stage
<b>Banvel II alone</b>	600 mL	Emergence to 50 cm (drop nozzles from 20-50 cm corn)	Pre-emergence to 2-leaf
<b>Banvel II + 2,4-D amine</b>	290 mL + 850 mL	Emergence to 50 cm (drop nozzles from 20-50 cm corn)	Pre-emergence to 2-leaf

## **Sequential Banvel II Applications Eastern and Western Canada**

**Banvel II** may be applied sequentially to a **Banvel II** application to control late-emerging weeds such as field bindweed, Canada thistle and velvetleaf. Follow application directions as outlined for the **Banvel II** alone post-emergence treatments up to 50 cm tall corn.

### **Grazing Restrictions**

Do not graze cattle on treated crop, or harvest for silage until 7 days following the application of **Banvel II** alone and at least 12 weeks following treatment with **Banvel II** tank-mixes.

## **WEED CONTROL IN REDUCED TILLAGE (prior to seeding)**

### **Treatment Notes**

1. **Banvel II** + Roundup applications may be applied to emerged annual grass and annual broadleaf weeds in reduced tillage systems prior to seeding of wheat, barley, rye, oats, and field corn only.
2. Do not apply prior to seeding sweet corn.
3. Planting should follow soon after application since this tank-mix does not provide residual weed control.
4. Delayed planting following chemical application will allow weeds to emerge between application and crop emergence.
5. For field corn, apply to medium to fine textured soils containing more than 2.5% organic matter. Do not use on sandy or sandy loam soil.
6. Certain broadleaf crops such as sweet corn, lentils, peas, canola and flax can be injured by a pre-seeding application of this tank-mix and should not be planted after the use of this tank-mix.
7. Under certain stress conditions, such as drought, cool temperatures or where extremely hard water (> 700 ppm Ca + Mg) will be used, use 50 L/ha of water with this tank-mix to help improve results.

## APPLICATION DIRECTIONS

Weeds Controlled	Banvel II Rate	Tank Mix
<b>Annual Grasses</b> <i>(Apply any time between emergence and heading)</i> brome, downy cereals, volunteer darnel, Persian foxtail, green oats, wild	<b>Banvel II</b> at 315 mL/ha +	Roundup at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water
<b>Annual Broadleaves</b> <i>(Apply up to 15 cm height)</i> buckwheat, wild* canola, volunteer*** cockle, cow flixweed** kochia lady's-thumb lamb's-quarters mustard, wild pigweed, redroot smartweed, green stinkweed** thistle, Russian cleavers (1-4 whorls) <b>(suppression only)</b>	<b>Banvel II</b> at 315 mL/ha +	Roundup at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water
<b>Perennials</b> <i>(Apply before initiation of seed head or browning of lower leaves)</i> barley, foxtail (suppression only)	<b>Banvel II</b> at 315 mL/ha +	Roundup at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water

\* Apply at the 1 to 4-leaf stage.

\*\* For optimal control of winter annual broadleaf weeds such as flixweed and stinkweed, 2,4-D should be applied to emerged, actively growing weeds in the fall the year prior to the **Banvel II** + Roundup spring pre-seeding tank-mix. Refer to the 2,4-D product label for appropriate rates.

\*\*\* Not including glyphosate tolerant canola, i.e. Roundup Ready Canola.

## WEED CONTROL IN REDUCED TILLAGE FALLOW

### Treatment Notes

1. Apply **Banvel II** tank-mixes in the spring to fallow land when seedling weeds have emerged, and are actively growing at the 2 to 4-leaf stage.
2. Reduced control may occur if applications are made at an advanced stage of weed development.

**DO NOT APPLY BY AIR.**

## APPLICATION DIRECTIONS

Weeds Controlled	Banvel II Rate	Tank Mix
buckwheat, <i>wild</i> buckwheat, <i>Tartary</i> cockle, <i>cow</i> flixweed kochia lady's-thumb lamb's-quarters mustard, <i>wild</i> pigweed, <i>redroot</i> shepherd's-purse smartweed, <i>green</i> sow-thistle, <i>perennial (top growth)</i> stinkweed thistle, <i>Canada (top growth)</i> thistle, <i>Russian</i>	230 – 290 mL/ha +	1.1 L/ha of 2,4-D amine 500 <b>OR</b> 920 mL/ha of 2,4-D L.V. ester 600 in 50-100 L of water
barley, <i>foxtail**</i> buckwheat, <i>wild**</i> cereals, <i>volunteer</i> cockle, <i>cow</i> flixweed* foxtail, <i>green</i> kochia lady's-thumb lamb's-quarters mustard, <i>wild</i> oats, <i>wild</i> pigweed, <i>redroot**</i> canola, <i>volunteer***</i> stinkweed thistle, <i>Russian</i>	290 mL/ha +	750 mL - 1.0 L/ha Roundup plus 350 mL of a non- ionic surfactant registered for this use in 50-100 L of water
Buckwheat, <i>wild</i>	600 mL/ha +	750 mL - 1.0 L/ha Roundup + 350 mL of an approved non-ionic surfactant in 50-100 L of water

\* For control of flixweed use 1.0 L/ha of Roundup.

\*\* Suppression only.

\*\*\* Not including glyphosate tolerant canola, i.e. Roundup Ready Canola.

### Banvel II / Roundup Application Notes

1. These tank-mixes should be applied to emerged actively growing annual weeds from 8-15 cm in height.
2. Use the higher rate of Roundup when weeds are at a more advanced stage of growth.
3. For perennial weed control, refer to the appropriate section of this label for proper stages of growth and recommended stages of application.
4. Reduced control may occur if muddy water is used, such as water from dug-outs, ponds and unlined ditches.



## PERENNIAL WEED CONTROL IN SUMMERFALLOW AND STUBBLE

### Treatment Notes

1. Apply **Banvel II** in 110-220 litres of water/ha.
2. For the most effective control of Canada thistle, follow a long-term approach that includes in crop, post-harvest, and summerfallow treatments, in conjunction with tillage operations.
3. 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.

### DO NOT APPLY BY AIR.

### Weeds Controlled

Weeds Controlled	Rate	Recropping in Year Following
bindweed, <i>field</i> daisy, <i>English</i> dock, <i>curled (top growth)</i> goldenrod ragwort, <i>tansy</i> sow thistle, <i>perennial</i> thistle, <i>Canada</i>	<b>Banvel II</b> alone at 2.5 L/ha	cereals soybeans field corn white beans sweet corn
thistle, <i>Canada</i> sow-thistle, <i>perennial</i>	<b>Banvel II</b> at 1.25 L/ha + Roundup at 1.7 L/ha + 350 mL of a non-ionic surfactant	<u>All of the above</u> <u>plus:</u> canola

### Application Directions

#### Summerfallow Treatment Notes

1. Cultivate in the spring and apply **Banvel II** when:

Weed	Weed Stage
thistles	the majority of thistles are up and before the early bud stage (15-25 cm tall)
field bindweed	in the flowering stage
other weeds	in the early bud stage of growth

2. Cultivate three weeks after application.

#### Stubble Treatment Notes

Apply to regrowth after harvest and at least 2 weeks prior to a killing frost.

## PERENNIAL ROSETTE CONTROL IN SUMMERFALLOW

### Treatment Notes

1. For the most effective control of Canada thistle, follow a long-term approach that includes in crop, post-harvest, and summerfallow treatments, in conjunction with tillage operations.
2. Commence early spring cultivation and continue as required throughout the summer.  
**Note:** The final cultivation must occur by the end of July between July 15-August 1 and the final cultivation should cut the thistle off 5 to 7.5 cm below the soil surface.
3. Spray in 110-220 L of water/ha when the majority of thistles have emerged as low growing rosettes 15 to 25 cm across.
4. Apply at least two weeks prior to a killing frost.
5. Cultivate three weeks after application.

**DO NOT APPLY BY AIR.**

### Weeds Controlled

Weeds Controlled	Banvel II Rate	Recropping in Year Following
thistle, <i>Canada</i>	1.25 L/ha	cereals field corn white beans canola soybeans

## PASTURES, RANGELAND AND NON-CROP AREAS

### Treatment Notes

#### For Broadleaf Weed Control

1. Apply **Banvel II** or **Banvel II** tank-mixes in 110-220 L of water/ha when weeds are actively growing. Thorough coverage of foliage is necessary to control weeds.
2. Do not apply **Banvel II** or **Banvel II** tank-mixes if pasture is underseeded to legumes.

**DO NOT APPLY BY AIR.**

<b>Weeds Controlled</b>	<b>Banvel II Rate</b>	<b>Tank Mix</b>
bindweed, <i>field</i> daisy, <i>English</i> dock, <i>curled (top growth)</i> goldenrod ragwort, <i>tansy</i> sow-thistle, <i>perennial</i> thistle, <i>Canada</i>	<b>Banvel II</b> alone at 2.1 L/ha	none
beard, <i>goat's</i> cherry, <i>ground</i> knapweed, <i>diffuse</i> sage, <i>pasture</i> sorrel, <i>sheep</i> spurge, <i>thyme-leafed</i> weed, <i>poverty</i>	<b>Banvel II</b> alone at 4.6 L/ha	none
poison ivy	<b>Banvel II</b> at 1.65 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation) in 560 L of water/ha
wild carrot <i>plus</i> additional weeds found on the 2,4-D amine label	<b>Banvel II</b> at 2.1 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation)
<u><i>All of the above plus</i></u> additional weeds found on the 2,4-D amine label	<b>Banvel II</b> at 2.1 L/ha +	1.83 L of 2,4-D L.V. ester (600 g/L formulation)

### For Brush Weed Control

1. **Banvel II** is effective in controlling many deciduous brush species that are found growing along fence rows and in other areas around the farm where they may be undesirable.
2. Apply **Banvel II** tank-mixes in spring or early summer to deciduous species (leaves should be fully expanded) either as a leaf stem treatment or as a broadcast ground application.
3. Brush and trees over 2 meters tall should be cut and regrowth treated when it develops.
4. Do not apply **Banvel II** tank-mixes if pasture or rangeland is underseeded to legumes.
5. For Stem Foliage Treatment, apply to all foliage and stems to the point of runoff. The volume of spray mix applied per hectare will vary according to the height and density of the woody species present.
6. For Broadcast Ground Treatment, apply **Banvel II** tank-mixes in sufficient dilution to wet all foliage. Normally, 220-230 litres of water/ha is recommended for brush stands.

**DO NOT APPLY BY AIR.**

Weeds Controlled	Banvel II Rate	Tank Mix
alder aspen poplar cherry western snowberry (buckbrush) wolf willow (silverwillow) wild rose	<b>Banvel II</b> at 2.1 L /1000 L of water +	4.0 L of 2,4-D amine (500 g/L formulation) <b>OR</b> 3.3 L of 2,4-D L.V. (600 g/L formulation)
aspen poplar	<b>Banvel II</b> at 3.25 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) <b>OR</b> 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
prickly rose	<b>Banvel II</b> at 3.65 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) <b>OR</b> 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
western snowberry	<b>Banvel II</b> at 3.65 L/ha +	3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)

## Grazing Restrictions

### Hay Making and Grazing Restrictions for Dairy Cattle

Rate/ha	Delay Between Treatment & Hay Making/Grazing
Up to 1.25 L <b>Banvel II</b>	0 days
> 1.25 L to 2.3 L <b>Banvel II</b>	7 days
> 2.3 L to 4.6 L <b>Banvel II</b>	14 days
> 4.6 L to 7.1 L <b>Banvel II</b>	30 days

### Hay Making and Grazing Restrictions for Meat Animals

Number of Days Between Banvel II Application & Hay Making or Consumption	Slaughter Restrictions
vegetation consumed <i>within</i> 30 days of treatment	feed animal untreated diet for 30 days <i>before</i> slaughter
vegetation consumed 30 days <i>after</i> treatment	no restrictions on slaughter

## SEED PRODUCTION

### Treatment Notes

#### For New/Established Stands of Red Fescue

1. Apply **Banvel II** or **Banvel II** tank-mixes in at least 110 litres of water/ha.
2. Applications to new seedling stands may be made when the crop is 5 cm tall.
3. Application to established stands may be made up to the shot-blade stage of the crop.
4. For dandelion control, apply **Banvel II** plus 2,4-D amine in the fall when weeds are in the rosette or early bud stage.

#### DO NOT APPLY BY AIR.

Weeds Controlled	Banvel II Rate	Tank Mix
buckwheat, <i>wild</i> buckwheat, <i>Tartary</i> cockle, <i>cow</i> clover lady's-thumb sow-thistle, <i>perennial (top growth)</i> spurry, <i>corn</i> smartweed, <i>green</i> thistle, <i>Canada (top growth)</i>	<b>Banvel II</b> alone at 600 mL/ha	none
<u>All of the above plus:</u> additional weeds found on the 2,4-D amine label	<b>Banvel II</b> at 600 mL/ha +	1.5 L/ha of 2,4-D amine (500 g/L formulation)

#### For Canary Grass

1. The canary grass should only be used as bird seed.
2. For specific weeds controlled, refer to the **Banvel II** + MCPA amine weed spectrum list under "Cereals".

Herbicide	Rate	Canary Grass Stage
<b>Banvel II</b> alone	290 mL/ha	3 - 5 leaf stage
<b>Banvel II</b> + MCPA amine	290 mL/ha + 850 mL/ha (500 g/L formulation)	3 - 5 leaf stage

**For Seedling Grasses** (seeded alone or underseeded with cereals)

**For seed and forage production of the following seedling grasses**

bromegrass, <i>smooth</i>	wheatgrass, <i>crested</i>
fescue, <i>meadow</i>	wheatgrass, <i>Intermediate</i>
fescue, <i>tall</i>	wheatgrass, <i>pubescent</i>
foxtail, <i>meadow</i>	wheatgrass, <i>slender</i>
orchard grass	wheatgrass, <i>streambank</i>
red fescue, <i>creeping</i>	wheatgrass, <i>tall</i>
timothy	

1. Apply **Banvel II** or **Banvel II** + tank-mixes in at least 110 litres of water/ha.
2. Application to new seedling grasses may be made when they are in the 2 to 4-leaf stage. If the seedling grass is under seeded with a cereal crop, refer to “Cereals” for additional restrictions pertaining to application type and rate.
3. If the crops are to be used as feed or pasture following treatment with **Banvel II**, **Banvel II** plus 2,4-D amine or MCPA, refer to “Grazing Restrictions”.

Weeds Controlled	Banvel II Rate	Tank Mix
buckwheat, <i>Tartary</i> buckwheat, <i>wild</i> cockle, <i>cow</i> cleavers ( <b>higher rate only</b> ) lady's-thumb sow-thistle, <i>perennial (top growth)</i> smartweed, <i>green</i> spurry, <i>corn</i> thistle, <i>Canada (top growth)</i>	<b>Banvel II</b> alone at 230 - 290 mL/ha	none
<u>All of the above plus:</u> burdock ( <b>young seedlings</b> ) canola, <i>volunteer*</i> cocklebur flixweed hemp-nettle** kochia pigweed, <i>redroot</i> pigweed, <i>Russian</i> radish, <i>wild</i> shepherd's-purse sunflower, <i>volunteer***</i> thistle, <i>Russian</i>	<b>Banvel II</b> at 230 - 290 mL/ha +	850 mL/ha of 2,4-D amine (500 g/L formulation) <b>OR</b> 850 mL/ha of MCPA amine (500 g/L formulation) <b>OR</b> 1.1 L/ha of MCPA K (400 g/L formulation)

\* Best results will be obtained if application is made prior to bolting of canola, when this weed is at the 2 to 4 leaf stage.

\*\* Use **Banvel II** + MCPA K for hemp-nettle control. Apply at the 2 to 3 leaf stage of weed for best control. Hemp-nettle may not be controlled if application is made at a more advanced stage of crops and weeds.

\*\*\* Depending on the growing conditions, control may be delayed slightly.

### For Established Grass Pasture

1. Apply **Banvel II** at 600 mL/ha with 1.5 L/ha of 2,4-D amine (500 g/L formulation) to suppress volunteer alfalfa.
2. Apply **Banvel II** + 2,4-D amine in 110-220 L/ha in the spring to actively growing alfalfa at greater than 5 cm in height.

### LOW-BUSH BLUEBERRIES

#### Treatment Notes

1. **Banvel II** can be used alone or in a tank-mix with 2,4-D L.V. ester.
2. Apply **Banvel II** or the **Banvel II** tank-mix in 550 litres of water per hectare.
3. Apply in the fall while the sweet-fern is still moderately green after 90% of the blueberries have dropped their leaves. This should be done before the area is burned. Fall burning or cutting should be carried out 4 to 5 weeks after spraying. If spring burning or cutting is planned, it should be done as early as possible in the spring to reduce injury to the blueberries.

#### DO NOT APPLY BY AIR.

#### Weeds Controlled

Weeds Controlled	Banvel II Rate	Tank Mix
fern, sweet lambkill (sheep laurel)	4.6 - 7.1 L/ha	none
additional broadleaf control	2.3 L/ha +	5.7 L of 2,4-D L.V. ester (600 g/L formulation)

### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, **Banvel II** is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to **Banvel II** 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 **Banvel II** or other Group 4 herbicides with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.

- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

## **PRECAUTIONS**

1. **KEEP OUT OF REACH OF CHILDREN.**
2. Harmful if swallowed or absorbed through the skin.
3. Avoid contact with skin, eyes, and clothing.
4. Thaw if frozen. Shake before use.

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

## **FIRST AID INSTRUCTIONS**

**IN CASE OF SKIN CONTACT:** Wash with plenty of soap and water.

**IN CASE OF EYE CONTACT:** Flush with plenty of water for at least 15 minutes. Contact a physician or poison control centre IMMEDIATELY.

**IF SWALLOWED:** Contact a physician or poison control centre IMMEDIATELY. Take container, label and/or product name with you when seeking medical attention.

**IF INHALED:** Remove person to fresh air. Assist breathing if necessary. Contact a physician or poison control centre IMMEDIATELY.

## **TOXICOLOGICAL INFORMATION**

Treat symptomatically.

## **DISPOSAL**

Do not reuse this container for any purpose. This is a recyclable container, and container disposal must be in accordance with the container disposal agreement entered into at the time of import for own use certificate application. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:



1. Remove the cap and paper brochure or leaflet.
2. Triple- or pressure-rinse the empty container. Add the rinsings to spray mixture in the tank.
3. Make the empty, rinsed container unsuitable for further use.

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.

## **Cleaning Spray Equipment**

### **Banvel II alone or with 2,4-D or MCPA**

If you have used **Banvel II** alone or **Banvel II** in a tank-mix with 2,4-D or MCPA, to clean the spray equipment follow these steps:

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill the tank with water, adding 1 L of household ammonia for every 100 L of water. Operate the spray pump to circulate the ammonia solution through the sprayer solution for 15-20 minutes and discharge a small amount of the ammonia solution through the spray boom and nozzles.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.

### **Banvel II with other Herbicides**

To clean spray equipment used to apply **Banvel II** as a tank-mix with wettable powders (WP), emulsifiable concentrates (EC) or other types of water-dispersible formulations, follow these steps: (Note that if you use **Banvel II** tank-mixes with water-dispersible formulation, you must add detergent to the rinse water.)

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill tank with water while adding 1 kg of detergent for every 150 litres of water. Operate the pump to circulate the detergent solution through the sprayer system for 5-10 minutes and discharge a small amount of the solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the detergent solution out of the spray tank through the boom.
4. Repeat step 1 and follow steps 2 and 3.

### **Bulk Container Refilling**

1. The container is to be refilled only with **Banvel II**.
2. Reseal and return to an authorized BASF bulk site.
3. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.
4. Check for leaks after refilling and before transportation.
5. Do not refill or transport damaged or leaking containers.
6. For disposal, this container may be returned to the point of purchase (dealer/distributor). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.
7. If the container is not being refilled, refer to Section on "Disposal".

### **STORAGE**

1. Store **Banvel II** in its original container only, away from other pesticides, fertilizer, food, or feed.
2. Keep the container closed to prevent spills and contamination.
3. Keep packages dry at all times.

### **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.