

GROUP

4

HERBICIDE

BANVEL® II HERBICIDE

SOLUTION

COMMERCIAL (AGRICULTURAL)

GUARANTEE: Dicamba, present as diglycolamine salt 480 g ae/L

REGISTRATION NO. 23957

PEST CONTROL PRODUCTS ACT



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 L to 1000 L

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

READ THE LABEL AND THE BROCHURE BEFORE USING

KEEP OUT OF REACH OF CHILDREN

BASF Canada Inc.
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1-877-371-2273

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ABOUT BANVEL II

Banvel II Herbicide controls broadleaf weeds in cereals, field corn, Roundup® Ready 2 Xtend Soybeans, reduced tillage (prior to seeding and reduced tillage fallow), pastures and rangeland grasses, crop-free land (summerfallow and stubble), red fescue, canary seed (*Phalaris canariensis*), 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, refer to appropriate Grazing Restrictions found herein.
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 non-dicamba tolerant 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.

ENVIRONMENTAL HAZARDS

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

DIRECTIONS FOR USE

Field Sprayer Application

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

Aerial Application (Cereals – Western Canada ONLY)

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 15 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) coarse classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wingspan or rotor span.

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine or marine habitats.

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

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

Surface Runoff

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay).

Potential contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip between the treated area and the edge of the water body.

Avoid applying this product when heavy rain is forecast.

Leaching

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

Buffer Zones

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

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, rangelands, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

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

Buffer Zones Using ASAE Coarse Applications

Method of Application	Crop	Buffer Zones (metres) Required for the Protection of:					
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat	
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m		
Field sprayer*	Barley, oats, rye, wheat, canary seed (<i>Phalaris canariensis</i>), forage grass (seedlings)	0	0	0	0	1	
	Corn, forage grass (established), red fescue	1	1	0	0	4	
	Roundup Ready 2 Xtend Soybeans	1	1	0	0	4	
	Stubble fields, fallow land	1	1	0	0	5	
	Pasture and rangeland, non-cropland	1	1	0	0	10	
	Blueberry (low bush)	1	1	1	0	15	
Aerial	Barley, oats, rye, wheat	Fixed wing	0	0	0	0	50
		Rotary wing	0	0	0	0	45

* For field sprayer application, buffer zones can be reduced with the use of drift-reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

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 National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

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

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

Operator Precautions

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

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

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-877-371-BASF (2273) or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

1. **Banvel II** or **Banvel II** phenoxy herbicide tank-mixes may be aurally 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 (higher rate only) 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>	Banvel II alone at 230-290 mL/ha	None
<u>Weeds listed for Banvel II alone plus:</u> burdock (young seedlings) 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>	Banvel II at 230 mL/ha +	2, 4-D amine OR MCPA amine OR MCPA K
<u>Weeds listed for Banvel II alone plus:</u> chickweed hemp-nettle** stinkweed sunflower, <i>volunteer</i> ***	Banvel II at 230 mL/ha +	Sencor OR Lexone
<u>Weeds listed for Banvel II alone plus:</u> canola, <i>volunteer</i> *	Banvel II 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
Banvel II 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
Banvel II 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
Banvel II 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.
- *** Ally 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
Banvel II 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
Banvel II 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

Following treatment with **Banvel II** or **Banvel II** plus 2,4-D, follow these grazing restrictions:

- DO NOT permit lactating dairy animals to graze fields within 7 days after application.
- DO NOT harvest forage or cut hay within 30 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

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.

FIELD CORN

DO NOT apply by air.

Treatment Notes

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	Banvel II 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 Magnum	2.0 - 2.75 L
Dual II Magnum	2.0 - 2.75 L
Frontier Max Herbicide	756 – 963 mL
Primextra II Magnum	3.0 - 4.0 L
Aatrex Liquid 480*	2.10 L
Prowl 400**	4.20 L
Aatrex Liquid 480* + Dual II Magnum	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 ¹

¹For 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 75DF + 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 Max Herbicide	1.25 L + 756 - 963 mL	Spike to 3-leaf	Pre-emergence to 2-leaf***
Banvel II + Aatrex Liquid 480*	1.25 L + 2.10 L	Spike to 5-leaf	Pre-emergence to 2-leaf
Banvel II + Aatrex Liquid 480* + Dual II Magnum	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 Herbicide 25% DF + non-ionic surfactant	0.60 L + 60 g + 0.2% v/v	Spike to 3-leaf	Emergence to 4-leaf
Banvel II + Dual II Magnum	0.6 - 1.25 L + 2.0 - 2.75 L	Spike to 2-leaf	Emergence to 2-leaf
Banvel II + Prowl 400** + Elim EP Herbicide 25% DF + 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
Banvel II + Option 35 DF + Hasten spray adjuvant + liquid nitrogen fertilizer (28% UAN)	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>Perennials quackgrass</p> <p>Annual Grasses foxtail, bristly foxtail, green foxtail, yellow grass, barnyard grass, large crab millet, proso panicum, fall witchgrass</p> <p>Annual Broadleaf Weeds 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
Banvel II alone	600 mL	Emergence to 50 cm (drop nozzles from 20-50 cm corn)	Pre-emergence to 2-leaf
Banvel II + 2,4-D amine	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 permit lactating dairy animals to graze fields within 7 days after application.

DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated fields at least 3 days before slaughter.

Roundup® Ready 2 Xtend Soybeans

Application Instructions for Roundup Ready 2 Xtend Soybeans

Banvel II can be used alone at 600 mL to 1.25 L/ha or in tank mix with Roundup® WeatherMAX with Transorb 2 Technology Liquid Herbicide for additional broadleaf and grass weed control.

Use **Banvel II** as part of herbicide programs that include residual herbicides and herbicides with alternate sites of action.

Banvel II applications should be made to small (less than 10 cm tall), actively growing weeds. Sequential post-emergence applications may be necessary to control new flushes of weeds. For best results, apply a sequential application of **Banvel II** after some weed regrowth has occurred.

Apply **Banvel II** only to **Roundup Ready 2 Xtend Soybeans**. SOYBEAN VARIETIES WHICH ARE NOT DESIGNATED AS DICAMBA TOLERANT WILL BE DAMAGED OR DESTROYED BY THIS TREATMENT.

Apply pre-plant, pre-emergence and/ or post-emergence to **Roundup Ready 2 Xtend Soybeans** by ground only.

DO NOT apply by air.

Avoid applying **Banvel II** to dry or powdery soil when there is low likelihood for rainfall after treatment. Applications under these conditions may result in soil particle movement and possible damage to desirable plants when soil particles are moved by wind or water. Injury to desirable plants may result if treated soil is washed, blown, or moved onto a site with desirable vegetation or foliage comes into contact with treated soil particles.

Use 100 or more litres of water per treated hectare. Thorough coverage of existing vegetation is essential for post-emergence applications; higher spray volumes may be necessary for optimum performance.

Pre-Harvest Interval(s): 7-10 days for soybean forage and 13-15 days for soybean hay.

A plant back interval of 120 days is required for those crops not on the **Banvel II** Herbicide label.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The spray system and weather-related factors determine the potential for spray drift. The applicator is responsible for considering these factors when making application decisions to avoid spray drift onto non-target areas.

Applicators must follow application requirements to avoid spray drift hazards, including those found in this labeling and applicable provincial and local regulations and ordinances. Areas with more stringent regulations must be observed.

All application equipment must be properly maintained and calibrated using appropriate carriers.

The applicator should be familiar with and take into account all factors that affect spray drift. The information covered in the following spray drift reduction review should be considered before applying.

Controlling Droplet Size

The most effective way to reduce drift potential is to utilize nozzles that produce large spray droplets. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Temperature and Humidity; Temperature Inversions; and Wind Speed and Direction**).

- **Volume** - Use high flow rate (large orifice) nozzles to apply the highest practical spray volume. Nozzles with higher rated flows generally produce larger droplets.
- **Pressure** - DO NOT exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure. Ensure that sprayer rate controller hardware (if so equipped) does not allow pressure increases above the desired range.
- **Temperature and Humidity** - Low humidity and high temperatures increase the evaporation of water from spray, reducing droplet size and increasing potential for spray drift. Avoid spraying during conditions of low humidity and/or high temperatures. Set up equipment to produce larger droplets to compensate for evaporation when making applications in hot and dry conditions.

Temperature Inversions

DO NOT apply **Banvel II** when temperature inversions exist. Temperature inversions increase drift potential because fine droplets may remain suspended after application. Suspended droplets can move in unpredictable directions because of the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning before surface warming. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. The inversion typically dissipates with increased winds (above 5 km/hour) or when surface air begins to warm (2°C from morning low).

Wind Speed and Direction

Measure wind speed at the boom height. DO NOT apply **Banvel II** when sustained wind speed exceeds 16 kilometres per hour.

Application Restrictions based on Wind Speed

Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift. For wind speeds:

Wind speed	Application conditions and restrictions
< 3 km/hr	DO NOT make applications of Banvel II if temperature inversion conditions exist. See Temperature Inversions for more detail.
3-16 km/hr	Optimum application conditions.
> 16 km/hr	DO NOT spray. Determine average wind speed and direction at boom height.

Ground Application Spray Drift Management

- **Nozzle type** - Correct nozzle selection is one of the most important parameters in drift reduction. Use nozzles that minimize the production of fine spray droplets less than 150 microns. Apply **Banvell II** using nozzles that deliver **very-coarse** to **ultra-coarse** spray droplets (volume median diameter of 450 microns or more) as defined by ASABE standard S572.1, and as shown in the nozzle manufacturer's catalog. Selection of nozzles that deliver large droplets may require increased spray volume per hectare (litres per hectare) to maintain coverage of target vegetation.
- **Boom Height** - Boom height should not be more than 50 cm above the target. Decreasing the boom height reduces exposure of droplets to environmental conditions like evaporation and wind. Automated boom height controllers are recommended with large booms to better maintain optimum nozzle-to-canopy height.
- **Equipment Ground Speed** - Select a ground speed under 25 kilometres per hour that will deliver the desired spray volume while maintaining the desired spray pressure. Slower speeds generally result in better spray coverage and deposition on the target area.

Sensitive Areas

Banvel II should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or sensitive crop plants) is minimal (e.g. when the wind is blowing away from sensitive areas).

Banvel II Use in Roundup® Ready 2 Xtend Soybeans

Weeds Controlled*	Rates	Timing
<p>Annual Broadleaved Weeds: buckwheat, <i>wild</i> buckwheat, <i>Tartary</i> cleavers cockle, <i>cow</i> fleabane, <i>Canada</i> (1) lady's-thumb lamb's-quarters, <i>common</i> 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> pigweed, <i>smooth</i> ragweed, <i>common</i> ragweed, <i>false</i> ragweed, <i>giant</i> smartweed, <i>green</i> spurry, <i>corn</i> velvetleaf</p> <p>Perennial Weeds: bindweed, <i>field</i> (2) sow-thistle, <i>perennial</i> (2) thistle, <i>Canada</i> (2)</p>	<p>Banvel at 600 mL to 1.25 L/ha</p>	<p>Pre-plant or Pre-emergence to the crop and/or Post-emergence to the crop once or twice up to the early flower stage of the crop.</p> <p>Notes:</p> <ul style="list-style-type: none"> • The 1.25 L/ha rate of Banvel II is to be used only once in a season and should be used pre-plant, pre-emergence or in-crop early post-emergence. • 2.45 L/ha of Banvel II is the maximum total to be applied in a single growing season year. • A third application of Banvel II should only be made for the control of glyphosate resistant weed populations.

Application Footnotes:

- (1) Post-emergence application only
- (2) Apply **Banvel II** annually for three years at the flowering stage of bindweed and the budding stage of thistles.

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

Banvel II and Roundup® WeatherMAX with Transorb 2 Technology Liquid Herbicide Use in Roundup® Ready 2 Xtend Soybeans

Weeds Controlled	Rates	Timing
<p>Annual Broadleaved Weeds: adzuki beans, <i>volunteer</i> (1) bill, <i>stork's</i> buckwheat (<i>wild, Tartary</i>) canola, <i>non-glyphosate tolerant</i> catchfly, <i>night flowering</i> chickweed cleavers cockle, <i>cow</i> cocklebur cucumber, <i>bur</i> (2) fleabane, <i>Canada</i> flixweed hawk's-beard, <i>narrow leaved</i> hempnettle kochia lady's-thumb lamb's-quarters, <i>common</i> mustard (<i>hare's-ear, Indian, tumble, wormseed, wild</i>) nightshade, <i>Eastern black</i> pigweed (<i>redroot, smooth, Russian</i>) ragweed (<i>common, giant, false</i>) shepherd's-purse smartweed (<i>green, Pennsylvania</i>) spurry, <i>corn</i> stinkweed thistle, <i>Russian</i> tomato, <i>wild</i> velvetleaf wormwood, <i>biennial</i> (3)</p> <p>Annual Grass Weeds: barley, <i>volunteer</i> barnyard grass crabgrass (<i>smooth, large</i>) foxtail (<i>green, yellow, giant</i>) millet, <i>wild proso</i> oats, <i>wild</i> panicum, <i>fall</i> wheat, <i>volunteer</i></p> <p>Perennial Weeds: bindweed, <i>field</i> (7) dandelion (4) milkweed, <i>common</i> (6, 7) muhly, <i>wire-stemmed</i> (5) nutsedge, <i>yellow</i> (6, 7) quackgrass (5) sow-thistle, <i>perennial</i> (5) thistle, <i>Canada</i> (5)</p>	<p>Banvel at 600 mL to 1.25 L/ha + Roundup WeatherMAX at 1.67 L/ha</p>	<p>Pre-plant or Pre-emergence to the crop and/or Post-emergence to the crop once or twice up to the early flower stage of the crop.</p> <p>Notes:</p> <ul style="list-style-type: none"> • The 1.25 L/ha rate of Banvel II is to be used only once in a season and should be used pre-plant, pre-emergence or in-crop early post-emergence. • 2.45 L/ha of Banvel II is the maximum total to be applied in a single growing season. • See the Residual Weed Control Section below for more information.

All weeds listed above plus tall water hemp- (8) and horsenettle (8)	Banvel at 600 mL to 1.25 L/ha + Roundup WeatherMAX at 3.33 L/ha	See notes above for application details. Apply 1 application per season at 3.33 L/ha.
All weeds listed above plus volunteer alfalfa (9) and bromegrass (9)	Banvel at 600 mL to 1.25 L/ha + Roundup WeatherMAX at 4.67 L/ha (10)	See notes above for application details. Apply 1 application per season at 4.67 L/ha.

Application Footnotes:

- (1) Applications including Roundup WeatherMax at 1.67 L/ha applied at the unifoliate to 4th trifoliate leaf stage of the adzuki beans. A second 1.67 L/ha application may be used for late flushes emerging after the initial treatment when the adzuki beans are in the unifoliate to 4th trifoliate leaf stage and actively growing.
- (2) Two applications including Roundup WeatherMax at 1.67 L/ha applied when the bur cucumber is at the 1 to 18 leaf stage. Applications should be at least 2 weeks apart for best results.
- (3) One application including Roundup WeatherMax at 1.67 L/ha applied at the 2-8 leaf stage of actively growing biennial wormwood
- (4) Applications including Roundup WeatherMax applied preplant surface or pre-emergence at 1.67 to 3.33 L/ha. Use Roundup WeatherMax rates of 2.47 to 3.33 L/ha on heavy infestations of dandelions and on dandelions greater than 15 cm in size. Apply up to and including bloom for best results.
- (5) Applications including Roundup WeatherMax at 1.67 L/ha applied when quackgrass has 3-4 leaves, Canada thistle and perennial sow thistle are rosette to 50 cm in height, and wire-stemmed muhly is 10-20 cm in height. Weeds should be actively growing at application.
- (6) Applications including Roundup WeatherMax at 1.67 L/ha will provide suppression.
- (7) For control of common milkweed, yellow nutsedge and field bindweed, a second application including Roundup WeatherMax at 1.67 L/ha may be needed and should be applied at least 2 weeks after the first application or 3.33 L/ha should be applied once. Milkweed should be 15-60 cm in height, yellow nutsedge should be 5-15 cm in height.
- (8) Applications including Roundup WeatherMax at 3.33 L/ha applied at the 2-12 leaf stage of horse-nettle or up to the 18 leaf stage of tall waterhemp or 2 applications of 1.67 L/ha applied at least 2 weeks apart. For control of tall waterhemp, use the higher rate if weeds are beyond the 6 leaf stage.
- (9) Alfalfa should have 9 or more leaves and be at least 10-15 cm tall. Bromegrass should have at least 3-5 leaves and be at least 10-15 cm tall.
- (10) With the 4.67 L/ha rate, some short term yellowing may occur in the sprayer overlap areas, but this effect is temporary and will not influence growth or yield.

Residual Weed Control and Suppression with Banvel II Applications in Roundup® Ready 2 Xtend Soybeans

In addition to providing post-emergence burndown activity on weeds, **Banvel II** applications will also provide short term residual activity on the weeds listed below. The 1.25 L/ha rate provides short term control and the 600 mL/ha rate provides suppression.

common lamb's-quarters
redroot pigweed
common ragweed
wild buckwheat
velvetleaf*

*suppression only for both rates

WEED CONTROL IN REDUCED TILLAGE (prior to seeding)

DO NOT apply by air.

Treatment Notes

1. **Banvel II** + glyphosate 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
Annual Grasses <i>(Apply any time between emergence and heading)</i> brome, downy cereals, volunteer darnel, Persian foxtail, green oats, wild	Banvel II at 315 mL/ha +	Roundup Original Liquid Herbicide**** at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water
Annual Broadleaves <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) (suppression only)	Banvel II at 315 mL/ha +	Roundup Original Liquid Herbicide**** at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water
Perennials <i>(Apply before initiation of seed head or browning of lower leaves)</i> barley, foxtail (suppression only)	Banvel II at 315 mL/ha +	Roundup Original Liquid Herbicide**** 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** + glyphosate 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.

**** Other glyphosate formulations may be substituted for Roundup Original Liquid Herbicide. Only use glyphosate products registered for reduced or minimum tillage systems. Adjust product application rate based on active ingredient concentration.

WEED CONTROL IN REDUCED TILLAGE FALLOW

DO NOT apply by air.

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.

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 OR 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 Original Liquid Herbicide**** + 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 Original Liquid Herbicide**** + 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 Original Liquid Herbicide.

** Suppression only.

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

**** Other glyphosate formulations may be substituted for Roundup Original Liquid Herbicide. Only use glyphosate products registered for reduced or minimum tillage systems. Adjust product application rate based on active ingredient concentration.

Banvel II / Glyphosate 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 glyphosate 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

DO NOT apply by air.

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.

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>	Banvel II alone at 2.5 L/ha	cereals soybeans field corn white beans sweet corn
thistle, <i>Canada</i> sow-thistle, <i>perennial</i>	Banvel II at 1.25 L/ha + Roundup Original Liquid Herbicide* at 1.7 L/ha + 350 mL of a non-ionic surfactant	<u>All of the above</u> <u>plus:</u> canola

* Other glyphosate formulations may be substituted for Roundup Original Liquid Herbicide. Only use glyphosate products registered for summerfallow and stubble. Adjust product application rate based on active ingredient concentration.

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.

DO NOT permit lactating dairy animals to graze fields within 7 days after application.

DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated fields at least 3 days before slaughter.

PERENNIAL ROSETTE CONTROL IN SUMMERFALLOW

DO NOT apply by air.

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.

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

Banvel II herbicide may be used to control deciduous brush species and broadleaf weeds that are found growing along fence rows and in other areas around the farm where they may be undesirable.

Treatment Notes

For high volume handwand applications, applicators must limit volume of solution used per day to 400 L (broadleaf control spot treatment only).

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.

Weeds Controlled	Banvel II Rate	Tank Mix
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>	Banvel II 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-leaved</i> weed, <i>poverty</i>	Banvel II alone at 4.6 L/ha	none
poison ivy	Banvel II at 1.65 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation) in 560 L of water/ha

Weeds Controlled	Banvel II Rate	Tank Mix
Weeds listed for Banvel II alone at 2.1 L/ha plus wild carrot plus additional weeds found on the 2,4-D amine label.	Banvel II at 2.1 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation)
Weeds listed for Banvel II alone at 2.1 L/ha plus wild carrot plus additional weeds found on the 2,4-D ester label.	Banvel II at 2.1 L/ha +	1.83 L of 2,4-D L.V. ester (600 g/L formulation)

For Brush Weed Control

- 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.
- 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.
- Brush and trees over 2 meters tall should be cut and regrowth treated when it develops.
- Do not apply **Banvel II** tank-mixes if pasture or rangeland is underseeded to legumes.
- 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.
- 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	Banvel II at 2.1 L /1000 L of water +	4.0 L of 2,4-D amine (500 g/L formulation) OR 3.3 L of 2,4-D L.V. (600 g/L formulation)
aspen poplar	Banvel II at 3.25 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) OR 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
prickly rose	Banvel II at 3.65 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) OR 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
western snowberry	Banvel II at 3.65 L/ha +	3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)

Grazing Restrictions

DO NOT permit lactating dairy animals to graze fields within 7 days after application.

DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated fields at least 3 days before slaughter.

SEED PRODUCTION

DO NOT apply by air.

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.

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>	Banvel II alone at 600 mL/ha	none
<u>All of the above plus:</u> additional weeds found on the 2,4-D amine label	Banvel II at 600 mL/ha +	1.5 L/ha of 2,4-D amine (500 g/L formulation)

For Canary seed (*Phalaris canariensis*)

1. The canary seed (*Phalaris canariensis*) 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 Seed (<i>Phalaris canariensis</i>) Stage
Banvel II alone	290 mL/ha	3 - 5 leaf stage
Banvel II + 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 (higher rate only) lady's-thumb sow-thistle, <i>perennial (top growth)</i> smartweed, <i>green</i> spurry, <i>corn</i> thistle, <i>Canada (top growth)</i>	Banvel II alone at 230 - 290 mL/ha	none
<i>All of the above plus:</i> burdock (young seedlings) 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>	Banvel II at 230 - 290 mL/ha +	850 mL/ha of 2,4-D amine (500 g/L formulation) OR 850 mL/ha of MCPA amine (500 g/L formulation) OR 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

DO NOT apply by air.

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.

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.
- For further information or to report suspected resistance, contact BASF at 1-877-371-2273.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed or absorbed through the skin.

Avoid contact with skin, eyes, and clothing.

Thaw if frozen. Shake before use.

Applicators must wear a long-sleeved shirt, long pants and chemical-resistant gloves. For applications to non-crop areas, applicators must also wear coveralls.

DO NOT enter treated fields until 12 hours after application to barley, low bush blueberries, canary seed (*Phalaris canariensis*), corn (field), fallow, oats, pastures, red fescue, Roundup Ready 2 Xtend Soybeans, spring rye, seedling grasses, stubble fields, summer fallow and wheat (spring, durum).

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

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 measures for mixing, loading and applying stated on both product labels.

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

FIRST AID

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

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

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

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

TOXICOLOGICAL INFORMATION

Dicamba may cause severe irritation to the eyes and irritation to the skin and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness, loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice.

Treat symptomatically.

DISPOSAL

Do not reuse this container for any purpose. This is a recyclable container, and it 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 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 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

Severe crop injury may occur if any **Banvel II** remains in the spray equipment following application and is subsequently applied to sensitive crops. After using **Banvel II**, clean all mixing and spray equipment (including tanks, pumps, lines, filters, screens, and nozzles) with a strong detergent or commercial sprayer cleaner, using a triple rinse procedure:

1. After spraying, drain the sprayer (including boom). DO NOT allow the spray solution to remain in the spray boom lines overnight or for extended periods of time.
2. Flush tank, hoses, boom, and nozzles with clean water.
3. Inspect and clean all strainers, screens, and filters.
4. Prepare a cleaning solution with ammonia (1 L for every 100 L of water) or a commercial sprayer cleaner according to the manufacturer's directions.
5. Wash all parts of the tank, including the inside top surface. Start agitation in the sprayer and thoroughly recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
6. Flush hoses, spray lines, and nozzles with the cleaning solution for at least 1 minute.
7. Repeat above steps for two additional times to accomplish an effective triple rinse.
8. Remove nozzles, screens, and strainers, and clean separately in the cleaning solution after completing the above procedures.
9. Dispose of rinsate in compliance with the provincial regulatory agency guidelines.
10. Drain pump, filter, and lines.
11. Rinse the complete spraying system with clean water.

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.

®™ All other products listed are trademarks or registered trademarks of their respective companies.

GROUP

4

HERBICIDE

BANVEL® II HERBICIDE

SOLUTION

COMMERCIAL (AGRICULTURAL)

GUARANTEE: Dicamba, present as diglycolamine salt 480 g ae/L

REGISTRATION NO. 23957

PEST CONTROL PRODUCTS ACT



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 L to 1000 L

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

READ THE LABEL AND ATTACHED BROCHURE BEFORE USING

KEEP OUT OF REACH OF CHILDREN

BASF Canada Inc.
100 Milverton Drive
5th Floor
Mississauga, Ontario
L5R 4H1
1-877-371-2273

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ENVIRONMENTAL HAZARDS

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

Surface Runoff

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include, but are not limited to, heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured or low in organic matter such as clay).

Potential contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip between the treated area and the edge of the water body.

Avoid applying this product when heavy rain is forecast.

Leaching

The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

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