

2022-2943
2023-03-15

This label has been updated according to the re-evaluation of Isoxaflutole RVD2022-04. While users are encouraged to follow this updated label immediately, the previously approved label is valid until “07/04/2024” in accordance with the phase out period set out in RVD2022-04. This previously approved label will be provided upon request by emailing hc.pmra.info-arla.sc@canada.ca. In your email please include the product name and Registration number of the label you are requesting.

Balance Bean MTZ

HERBICIDE SUSPENSION

FOR SALE FOR USE IN EASTERN CANADA
AND BRITISH COLUMBIA ONLY

CONTAINS ISOXAFLUTOLE AND METRIBUZIN

FOR USE IN ISOXAFLUTOLE TOLERANT SOYBEANS

COMMERCIAL - AGRICULTURAL

ACTIVE INGREDIENTS:
ISOXAFLUTOLE.... 105 g/L
METRIBUZIN.... 420 g/L

CONTAINS 1,2-BENZISOTHIAZOLIN-3-ONE AT 0.035% AND 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AT 0.0009% AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE AT 0.0003%,
AS PRESERVATIVES

REGISTRATION NO. 33249
PEST CONTROL PRODUCTS ACT

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

SHAKE WELL BEFORE USING



CAUTION

POISON

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

BASF Canada Inc.
5025 Creekbank Road
Building A, 2nd Floor
Mississauga, Ontario L4W 0B6

1-877-371-2273

NET CONTENTS: 1 L – Bulk

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.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed, inhaled or absorbed through skin. Do not inhale or ingest. If inhaled, remove from site of exposure. Avoid contact with skin, eyes and clothing.

Users should remove clothing immediately if pesticide gets inside. Wash the outside of the gloves before removing. Then wash thoroughly and put on clean clothing. Wash contaminated clothing with soap and hot water before re-use. Wash from skin or eyes immediately. Wash skin thoroughly with soap and warm water after handling. Avoid breathing dust or spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Avoid spray drift onto crops other than those recommended. Avoid contamination of ponds, streams, rivers and other water sources. Do not spray if there is a forecast for rain during or soon after application.

Apply only to agricultural crops when the potential for drift to areas of human habitation and human 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.

DO NOT APPLY BY AIR.

PROTECTIVE CLOTHING AND EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE) or use detergent and hot water. Keep and wash PPE separately from other laundry.

FIRST AID

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

If swallowed	<ul style="list-style-type: none">• Call a poison control centre or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor.• Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.• Call a poison control centre or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control centre or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none">• 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.

- | |
|--|
| <ul style="list-style-type: none">• Call a poison control centre or doctor for further treatment advice. |
|--|

TOXICOLOGICAL INFORMATION: TO PHYSICIAN: No specific antidote. Treat symptomatically.

SYMPTOMS OF POISONING: The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.

ENVIRONMENTAL PRECAUTIONS

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

Do not apply when weather conditions favour drift from areas treated. Do not allow sprays to drift on to adjacent desirable plants. Do not contaminate water when disposing of equipment wash waters. Do not apply directly to water, or to areas where surface water is present. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow.

Following application and during rainfall events that cause runoff, these chemicals may reach surface water bodies including streams and reservoirs. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application of this product when heavy rain is forecast.

Do not exceed rates recommended on this label. Uneven application such as swath overlapping, variable tractor speed, spraying on turns, etc., may result in crop injury and increase chances of injury to succeeding crops.

RE-ENTRY INTERVAL

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

It is recommended that this product not be applied in a way that will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area during application.

STORAGE

Do not contaminate water, food or feed by storage or disposal. Store the container tightly closed, away from seeds, fertilizer, plants and foodstuffs. Store in a cool, dry secured storage area. Do not store this product under wet conditions.

To prevent contamination, store this product away from food and feed.

RECYCLABLE CONTAINER DISPOSAL: DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

RETURNABLE CONTAINER DISPOSAL: DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

DISPOSAL OF UNUSED, UNWANTED PRODUCT: 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.

2022-2943
2023-03-15

Booklet

GROUP 5 & 27 HERBICIDE

Balance Bean MTZ

HERBICIDE SUSPENSION

FOR SALE FOR USE IN EASTERN CANADA
AND BRITISH COLUMBIA ONLY

CONTAINS ISOXAFLUTOLE AND METRIBUZIN

FOR USE IN ISOXAFLUTOLE TOLERANT SOYBEANS

COMMERCIAL - AGRICULTURAL

ACTIVE INGREDIENTS:
ISOXAFLUTOLE.... 105 g/L
METRIBUZIN.... 420 g/L

CONTAINS 1,2-BENZISOTHIAZOLIN-3-ONE AT 0.035% AND 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AT 0.0009% AND 2-METHYL-4-ISOTHIAZOLIN-3-ONE AT 0.0003%,
AS PRESERVATIVES

REGISTRATION NO. 33249
PEST CONTROL PRODUCTS ACT

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

SHAKE WELL BEFORE USING



CAUTION

POISON

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

BASF Canada Inc.
5025 Creekbank Road
Building A, 2nd Floor
Mississauga, Ontario L4W 0B6

1-877-371-2273

NET CONTENTS: 1 L – Bulk

Internal

TABLE OF CONTENTS

		Section Number
General Information	Notices	1
	The Product	2
Safety and Handling	Precautions, Protective Clothing and Equipment	3
	First Aid and Toxicological Information	4
	Environmental Precautions	5
	Re-Entry Interval	6
	Storage	7
	Disposal	8
	Directions For Use	Pests, Application Rates and Methods
Special Precautions		10
Mixing Instructions and Sprayer Cleanup		11
Rotational Crops and Field Bioassay		12
Resistance Management Recommendations		13

GENERAL INFORMATION

Section 1 - Notices

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.

Section 2 - The Product

THE PRODUCT

Balance Bean MTZ Herbicide is a soluble concentrate formulation of isoxaflutole at 105 g/L and metribuzin at 420 g/L. Balance Bean MTZ Herbicide is a selective herbicide for season long control of important broadleaf and grass weeds infesting isoxaflutole tolerant soybeans.

GENERAL APPLICATION INFORMATION

Surface Pre-plant and Pre-emergence

Balance Bean MTZ Herbicide can be applied to the soil surface up to 14 days prior to planting isoxaflutole tolerant soybeans, or after planting but before the crop emerges.

When activated by rainfall, Balance Bean MTZ Herbicide will control susceptible weed seedlings that are up to 5cm in height.

Apply only to agricultural crops when the potential for drift to areas of human habitation and human 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.

SAFETY AND HANDLING

Section 3 - Precautions, Protective Clothing and Equipment

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed, inhaled or absorbed through skin. Do not inhale or ingest. If inhaled, remove from site of exposure. Avoid contact with skin, eyes and clothing.

Users should remove clothing immediately if pesticide gets inside. Wash the outside of the gloves before removing. Then wash thoroughly and put on clean clothing. Wash contaminated clothing with soap and hot water before re-use. Wash from skin or eyes immediately. Wash skin thoroughly with soap and warm water after handling. Avoid breathing dust or spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

Avoid spray drift onto crops other than those recommended. Avoid contamination of ponds, streams, rivers and other water sources. Do not spray if there is a forecast for rain during or soon after application.

DO NOT APPLY BY AIR

PROTECTIVE CLOTHING AND EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE) or use detergent and hot water. Keep and wash PPE separately from other laundry.

Section 4 - First Aid and Toxicological Information

FIRST AID

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

If swallowed	<ul style="list-style-type: none"> • Call a poison control centre or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. • Call a poison control centre or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control centre or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • 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.

TOXICOLOGICAL INFORMATION: TO PHYSICIAN: No specific antidote. Treat symptomatically.

SYMPTOMS OF POISONING: The compound does not cause any definite symptoms that would be diagnostic. Poisoning is accompanied by breathing difficulties and sedation.

Section 5 – Environmental Precautions

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

Do not apply when weather conditions favour drift from areas treated. Do not allow sprays to drift on to adjacent desirable plants. Do not contaminate water when disposing of equipment wash waters. Do not apply directly to water, or to areas where surface water is present. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or the depth to the water table is shallow.

Following application and during rainfall events that cause runoff, these chemicals may reach surface water bodies including streams and reservoirs. To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application of this product when heavy rain is forecast.

Do not exceed rates recommended on this label. Uneven application such as swath overlapping, variable tractor speed, spraying on turns, etc., may result in crop injury and increase chances of injury to succeeding crops.

Section 6 - Re-Entry Interval

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

It is recommended that this product not be applied in a way that will contact workers or other persons, either directly or through drift. Only handlers wearing personal protective equipment may be in the area during application.

Section 7 - Storage

Do not contaminate water, food or feed by storage or disposal. Store the container tightly closed, away from seeds, fertilizer, plants and foodstuffs. Store in a cool, dry secured storage area. Do not store this product under wet conditions.

To prevent contamination, store this product away from food and feed.

Section 8 - Disposal

RECYCLABLE CONTAINER DISPOSAL: DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

RETURNABLE CONTAINER DISPOSAL: DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

DISPOSAL OF UNUSED, UNWANTED PRODUCT: 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.

DIRECTIONS FOR USE

Section 9 - Pests, Application Rates and Methods
--

WEEDS CONTROLLED AND APPLICATION RATE

Surface Pre-plant and Pre-emergence

Balance Bean MTZ Herbicide can be applied to the soil surface up to 14 days prior to planting isoxaflutole tolerant soybeans, or after planting but before the crop emerges. Do not apply after the isoxaflutole tolerant soybeans emerge or crop injury may occur.

Early season weed control refers to a planned weed management program with a post-emergent herbicide treatment. It will provide weed control through the critical crop establishment phase. Weed species escapes and their respective growth stages should be monitored to select the best appropriate post-emergence herbicide treatment option.

A single application of Balance Bean MTZ Herbicide will control the following annual broadleaf and grassy weeds:

Application Rate	Weeds Controlled	
0.5 L/Ha Early Season Weed Control	Barnyard Grass Common Lamb's quarters ¹ Common Ragweed ^{1, 2} Common Waterhemp ^{1, 2} Crabgrass, Smooth and Large Dandelion, seedling Eastern Black Nightshade ¹ Foxtail, Green ³ and Yellow	Lady's Thumb Mustard, Wild and Wormseed Plantain, seedling Redroot Pigweed ¹ Sowthistle, Annual and Spiny Annual Velvetleaf Wild Buckwheat Witchgrass
0.75 L/Ha Season-Long Weed Control	Common Lamb's quarters ¹ Common Ragweed ^{1, 2} Common Waterhemp ^{1, 2} Crabgrass, Smooth and Large Dandelion, seedling Eastern Black Nightshade ¹ Lady's Thumb	Mustard, Wild and Wormseed Plantain, seedling Redroot Pigweed ¹ Sowthistle, Annual and Spiny Annual Velvetleaf Witchgrass
1.0 L/Ha Season-Long Weed Control	Above-listed weeds plus: Barnyard Grass Canada Fleabane ^{2, 4} Yellow Foxtail	Giant Ragweed ^{2, 4} Green Foxtail Wild Buckwheat

¹ Includes triazine and ALS resistant biotypes

² Includes glyphosate resistant biotypes

³ Early season suppression only

⁴ Up to 10 cm in diameter/height

TANK-MIXTURES

When tank-mixing, read and observe all label directions, including rates, personal protective equipment, 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.

The following tank-mixtures can be applied to the soil surface up to 14 days prior to planting isoxaflutole tolerant soybeans, or after planting but before the crop emerges. Use tank-mixes for enhanced burndown control of emerged weeds in all tillage management systems and improved control of established dandelion in zero-tillage management systems. Do not apply Balance Bean MTZ Herbicide tank-mixes after isoxaflutole tolerant soybeans emerge or crop injury may occur.

Tank-mix	Product Rates	Weeds controlled
Balance Bean MTZ Herbicide + Glyphosate ¹	All listed rates + 900 g a.e./ha	Weed species listed for Balance Bean MTZ Herbicide alone, plus: burndown control of emerged weeds

¹ Balance Bean MTZ Herbicide is compatible with various glyphosate formulations registered for use as a pre-plant treatment prior to soybean emergence. These glyphosate formulations include those where glyphosate is present as an isopropylamine salt, di-ammonium salt or potassium salt. Adjust the rate of glyphosate accordingly for products of differing glyphosate content.

Section 9 - Application Instructions and Limitations

APPLICATION PROCEDURES

Apply Balance Bean MTZ Herbicide in conventional, minimum tillage, or zero tillage crop management systems up to 14 days prior to planting, or after planting but before the crop emerges. Do not apply after the isoxaflutole tolerant soybeans emerge or crop injury may occur.

Apply Balance Bean MTZ Herbicide by ground equipment only, in a minimum of 150 litres of water per hectare at a spray pressure of 138-275 kPa. It is essential that the sprayer be properly calibrated before making application. For best results use flat fan nozzles or comparable nozzles to achieve uniform spray distribution. Do not apply with hollow cone nozzles or with other application equipment which does not provide uniform coverage.

DO NOT APPLY BY AIR

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application of this product when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

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

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

SPRAY DRIFT MANAGEMENT

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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

SPRAY BUFFER ZONES:

A spray buffer zone is not required for:

- uses with hand-held application equipment permitted on this label,
- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage

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

Method of application	Crop	Buffer Zones (metres) Required for the Protection of:				Terrestrial Habitat
		Freshwater Habitat of Depths		Estuarine/Marine Habitat of Depths		
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Isoxaflutole tolerant soybeans	2	1	1	1	20

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.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

Section 10 - Special Precautions

Apply only to isoxaflutole tolerant soybean varieties. Application to soybeans that are not isoxaflutole tolerant will result in significant crop injury.

Do not apply more than once per season regardless of method of application.

Do not apply Balance Bean MTZ Herbicide to isoxaflutole tolerant soybeans grown on loamy sands or sands and/or soils with less than 2% O.M.

Under certain conditions, bleaching of some soybean leaves may occur when the plant is in the seedling stage. These conditions include cold weather, excessive moisture and/or compacted soils. Symptoms are most visible where excessive rates have been applied, such as sprayer overlaps, but are quickly outgrown with no adverse effect on maturity or crop yield.

Harvest isoxaflutole tolerant soybean seed at normal maturity. Do not graze the treated crop or cut for hay.

Contact your local BASF Representative for a list of isoxaflutole tolerant soybean varieties.

Section 11 - Mixing Instructions and Sprayer Cleanup

MIXING INSTRUCTIONS

Fill spray tank with $\frac{1}{4}$ to $\frac{1}{2}$ of the required volume of water prior to the addition of Balance Bean MTZ Herbicide. Add Balance Bean MTZ Herbicide slowly to the tank and agitate. If Balance Bean MTZ Herbicide is applied in tank-mixtures with other pesticides, add Balance Bean MTZ Herbicide to the spray tank first and ensure that it is thoroughly dispersed before continuing to fill the spray tank and adding other pesticides.

Continue to fill the tank with water to the desired volume while agitating. VIGOROUS, CONTINUOUS AGITATION IS ESSENTIAL FOR PROPER MIXING THROUGHOUT FILLING AND SPRAYING OPERATIONS. Return line agitation is not sufficient. Sparge tube, jet or mechanical agitation is required. Agitation should be sufficient to create a rippling or rolling action on the surface. A pump must be of sufficient capacity to provide adequate volume through the by-pass and/or jet agitation system to provide sufficient agitation even while the booms are operating.

Balance Bean MTZ Herbicide and all registered mixtures should be kept agitated once mixed and then sprayed out immediately. Do not allow mixtures to stand for prolonged periods of time. Water quality, pH, temperature and/or other components of the mixture may affect how long the mixture can stand before application.

NOTE: If spraying and agitation is stopped before the spray tank is empty, the suspended material will settle to the bottom of the tank. When spraying must be interrupted, it is recommended to maintain agitation until spraying resumes. If agitation must be stopped before the spray tank is empty, follow these steps to resume spraying:

1. Remove main filter.
2. Mechanically mix spray solution (i.e., paddle) prior to restarting pump. Ensure that loose sediment is moved out to the sump area.
3. Start agitation on full.
4. Paddle corners of the tank.
5. Reinstall main filter.

At the end of each spray day, rinse out the tank and sprayer lines with water.

SPRAYER CLEANUP

Spray equipment must be thoroughly cleaned to remove remaining traces of herbicide that might injure other crops. Drain any remaining spray solution of Balance Bean MTZ Herbicide from the spray tank and discard in non-crop areas away from water supplies. Rinse the spray tank and refill with water, adding a heavy duty detergent at the rate of 250 mL/100 L of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5

minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of the spray tank, nozzles or spray rig.

Section 12 - Rotational Crops and Field Bioassay
--

Balance Bean MTZ Herbicide-treated soybean fields may be planted to the following crops after the indicated time after treatment:

Time after Balance Bean MTZ treatment	Crops
3 months	Winter wheat ¹
1 year	Alfalfa Barley Field corn Potato Processing peas Soybean Spring canola Spring barley Spring oats Spring wheat Timothy Tomato ²
2 years	All classes of dry common beans

¹ Crop injury may be observed on coarse soil.

² Caution should be used when planting tomato 1 year following an application of Balance Bean MTZ Herbicide if conditions were exceptionally dry during the season of application.

A field bioassay must be conducted the year prior to growing any other crop of interest to confirm crop safety.

FIELD BIOASSAY

Select a representative area or areas of the field previously treated with Balance Bean MTZ Herbicide to plant your bioassay crop(s). Be sure to consider factors such as size of field, soil texture, drainage and turn-around areas when selecting the site(s) that are most representative of the conditions in the field. On large fields, more than one site may be needed in order to obtain reliable results. Plant the test strips perpendicular to the direction in which the field was sprayed. The strips should be long enough to cross the width of several spray swaths. Large test strip areas are more reliable than small ones. Use standard tillage and seeding equipment to plant the bioassay. Prepare a seed bed and plant the crops and varieties you want the option of growing the following year. It is important to use the same planting time, conditions, techniques and cultural practices you normally use to plant and grow the bioassay crop(s). Also, plant into an adjacent area not treated with Balance Bean MTZ Herbicide to use as a comparison. As the crop(s) emerges and grows, examine these key points in Balance Bean MTZ Herbicide-treated and non-treated areas:

- crop stand
- root development
- rate of growth
- plant colour and vigour
- yield

Allow the bioassay crop(s) to grow to maturity while making your observations. Do not overspray the test strips with herbicides that may damage the bioassay crop(s). If the bioassay indicates that Balance Bean MTZ Herbicide residues are still present, continue cropping only to those crops listed on the label, and do not rotate to other crops until bioassay results indicate that susceptible crops are growing normally without yield reductions.

Failure to follow the re-cropping guidelines could result in injury to seeded crop(s).

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, Balance Bean MTZ Herbicide is a Group 5 and 27 herbicides. Any weed population may contain or develop plants naturally resistant to Balance Bean MTZ Herbicide and other Group 5 and 27 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 Balance Bean MTZ Herbicide or other Group 5 and 27 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact BASF Canada Inc. at 1-877-371-2273 or at www.agsolutions.ca.