GROUP 1 HERBICIDE

#### **BISON® UNPACKED**

## Suspension

## COMMERCIAL (AGRICULTURAL)

A SUSPENSION CONCENTRATE HERBICIDE FOR POST EMERGENCE CONTROL OF ANNUAL GRASSES IN SMALL GRAIN CEREALS AND IN SELECTED FORAGE GRASSES GROWN FOR SEED ONLY.

ACTIVE INGREDIENT:
Tralkoxydim.......400 g/L

Contains 1,2-benzisothiazolin-3-one at 0.041 % as a preservative.

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

REGISTRATION NO. 34998 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 4 - 1 050 litres

For emergency medical help and health/safety inquiries call ProPharma Group at 1.877.250.9291 (24 hours a day)

For spill, leak or fire call INFOTRAC at 1.800.535.5053 (24 hours a day)

ADAMA Agricultural Solutions Canada Ltd. 300 – 191 Lombard Avenue Winnipeg, Manitoba R3B 0X1 1-855-264-6262

#### **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.

#### FIRST AID

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

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

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

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

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

#### TOXICOLOGICAL INFORMATION

Treat symptomatically for ingestion and/or skin and eye contact. Symptoms are likely to be those of Central Nervous System (CNS) depression. Avoid respiratory depressants unless otherwise indicated.

#### **PRECAUTIONS**

#### KEEP OUT OF REACH OF CHILDREN.

Do not wear contact lenses when using chemicals. Do not smoke, eat, or drink while using this product. Workers must wear coveralls over long-sleeved shirt, long pants, safety goggles, boots, and chemical resistant gloves when mixing, loading, and during clean up or when adjusting or repairing sprayer. Applicators must wear long-sleeved shirt, long pants. Wash gloves thoroughly with water before removing them during any operation. Wash hands thoroughly with soap and water after using the product and before eating, drinking or smoking. Do not contaminate food, water supplies or animal feed.

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

#### **ENVIRONMENTAL PRECAUTIONS:**

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

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 the 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.

#### **STORAGE**

Store this product away from food or feed. Store in a cool, dry place, away from children, animals, food, feed or fertilizers. Keep unused product in resealed original container. Store above -5°C. Shake well before use.

#### SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag.

<u>For spills and leaks</u> - contain the liquid with dikes of inert material (soil, clay, kitty litter etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

<u>On hard surfaces</u> - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

#### DISPOSAL

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.

#### **CONTAINER DISPOSAL:**

#### For recyclable containers:

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

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

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

#### For refillable containers:

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

GROUP 1 HERBICIDE

#### **BISON® UNPACKED**

## Suspension

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ADAMA Agricultural Solutions Canada Ltd. 300 – 191 Lombard Avenue Winnipeg, Manitoba R3B 0X1 1-855-264-6262

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#### TOXICOLOGICAL INFORMATION

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#### **PRECAUTIONS**

## KEEP OUT OF REACH OF CHILDREN.

Do not wear contact lenses when using chemicals. Do not smoke, eat, or drink while using this product. Workers must wear coveralls over long-sleeved shirt, long pants, safety goggles, boots and chemical resistant gloves when mixing, loading, and during clean up or when adjusting or repairing sprayer. Applicators must wear long-sleeved shirt, long pants. Wash gloves thoroughly with water before removing them during any operation. Wash hands thoroughly with soap and water after using the product and before eating, drinking or smoking. Do not contaminate food, water supplies or animal feed.

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

#### **ENVIRONMENTAL PRECAUTIONS:**

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

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 the 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.

#### **STORAGE**

Store this product away from food or feed. Store in a cool, dry place, away from children, animals, food, feed or fertilizers. Keep unused product in resealed original container. Store above -5°C. Shake well before use.

#### SPILL CLEANUP

Wear appropriate protective equipment (gloves, glasses, apron) when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag.

<u>For spills and leaks</u> - contain the liquid with dikes of inert material (soil, clay, kitty litter etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

<u>On hard surfaces</u> - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste including scrub brush in accordance with provincial requirements. Contact the manufacturer and the provincial regulatory agency in case of a spill and for clean-up of spills.

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- 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 refillable containers:

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

## PRODUCT INFORMATION

BISON® UNPACKED is a systemic, postemergence herbicide for the selective control of wild oats, volunteer tame oats, green foxtail, yellow foxtail, barnyard grass and Persian Darnel in spring wheat, durum wheat, winter wheat, barley, triticale, spring rye, winter rye, and selected forage grasses (except timothy) grown for seed only.

#### **DIRECTIONS FOR USE**

Only one application per season is permitted.

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

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

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, application equipment and sprayer settings.

## 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.

#### **AERIAL APPLICATION:**

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distributions along the spray boom length MUST NOT exceed 65% of the wingspan or rotorspan.

## **Spray Buffer zones:**

The spray 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),

Method of Application	Buffer Zones (metres) Required for the Protection of:	
	Terrestrial Habitat	
Field Sprayer	3	
Aerial (fixed wing)	100	
Aerial (rotary wing)	80	

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray 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 spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

**RATE OF USE:** Apply BISON® UNPACKED at 0.5 L/ha in 50-100 L/ha of water.

Note: Always add ADDIT® ADJUVANT, CARRIER, NUP 09025 ADJUVANT, MSO SPRAY ADJUVANT, DESTINATION® MSO or IPCO MSO ADJUVANT to the spray solution at a rate of 0.5 L per 100 L of water (0.5% v/v). The incorrect adjuvant rate can result in unacceptable weed control or crop injury. See MIXING and SPRAYING INSTRUCTION sections.

## **BISON® UNPACKED can be used on the following crops:**

**CEREAL CROPS:** (Spring Wheat, Durum Wheat, Winter Wheat, Barley, Triticale, Spring Rye and Winter Rye) BISON® UNPACKED can be used in all varieties of spring wheat (including Canada Western red spring, amber durum, soft white spring, extra strong and Canada prairie spring), red winter wheat, all 2 or 6 row varieties of barley (malting and feed varieties), all varieties of triticale, spring rye and winter rye.

**Note:** Tillered cereal crops may incur injury if applications are made within 48 hours of freezing temperatures. Non-tillering cereal crops which are exposed to temperatures of 4°C or less up to 48 hours before or after application may incur injury. Tank mixing BISON® UNPACKED with a broadleaf weed herbicide under adverse conditions may increase severity of crop injury. Crops under stress from foliar diseases or low fertility are more susceptible to injury from BISON® UNPACKED.

Early crop injury may be observed, but yield should not be reduced. Do not use in tame oat crops. Avoid drift onto tame oat and corn crops. Do not replant treated areas to tame oats or corn for at least 4 weeks after application.

**In Eastern Canada** BISON® UNPACKED is to be used only for the control of wild oats in spring wheat, winter wheat, durum wheat, barley and all varieties of triticale and spring and winter rye.

MINIMUM INTERVAL TO HARVEST: Immature cereal crops may be grazed or cut for hay 16 days after treatment. Grain may be harvested 60 days after treatment. Mature straw may be fed to livestock. Do not feed or graze underseeded forage crops in the year of treatment, sufficient data are not available to support this use.

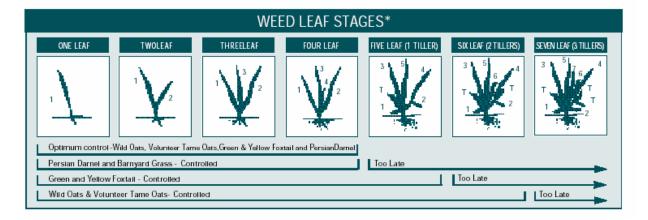
CEREAL CROPS UNDERSEEDED TO FORAGE LEGUMES: alfalfa, birdsfoot trefoil, sainfoin and clovers.

**Note:** Do not tank-mix BISON® UNPACKED with any broadleaf herbicides when applying to cereal crops underseeded to forage legumes, as the forages may be injured or killed.

**WEEDS CONTROLLED:** Apply BISON® UNPACKED to actively growing weeds for best results. Weeds emerging after application of BISON® UNPACKED will not be controlled.

CROP	WEEDS CONTROLLED	WEED GROWTH STAGE (ZADOKS or BBCH)
WHEAT DURUM BARLEY TRITICALE RYE	WILD OATS, VOLUNTEER OATS	1-6 leaf (11,20 to 14,22)
	GREEN FOXTAIL, YELLOW FOXTAIL	1-5 leaf (11,20 to 14,21)
	BARNYARD GRASS PERSIAN DARNEL	1-4 leaf (11 to 14)

Optimum weed control and crop yield response occurs when grassy weeds are removed before they begin to tiller. Refer to the illustration.



#### **Weed Control Notes:**

- Perennial grasses such as quack grass will not be controlled.
- Susceptible grassy weeds treated with BISON® UNPACKED cease growth soon after application, however, complete die-back of the weeds could take up to 2 weeks.
- When grass weeds are stressed due to drought, heat, lack of fertility, flooding or prolonged cool
  temperatures, control can be reduced or delayed since the grasses are not actively growing. Grass
  escapes or re-tillering may occur when application is made under prolonged stress conditions.
  Optimum weed control will be obtained if application of BISON® UNPACKED is delayed until
  the stress conditions have ended and weeds are once again actively growing.
- The herbicidal activity of BISON® UNPACKED can be negatively affected if water containing high concentrations (>400 ppm) of bicarbonate ions is used as a diluent. Water from deep wells is more likely to contain high concentrations of bicarbonate ions. Ammonium sulfate at 9 to 18 kg per 1000 litres of spray solution, can be used to counteract this antagonistic effect. Use only granular or liquid ammonium sulfate formulations which do not contain additional wetters or surfactants.
- BISON® UNPACKED is not affected by rain falling one hour or more after application.

#### TANK MIXES:

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact ADAMA Agricultural Solutions Canada Ltd. at 1-855-264-6262 for information before applying any tank mix that is not specifically recommended on this label.

## TANK MIXES OF BISON® UNPACKED WITH BROADLEAF WEED HERBICIDES:

BISON® UNPACKED alone will not control broadleaf weeds. For broad spectrum control of both annual grasses and broadleaf weeds, BISON® UNPACKED can be tank mixed with a variety of broadleaf weed herbicides. Refer to the following table for details and additional guidance.

## **Tank Mixing Notes:**

- 1. With reduced water volumes, tank mixes with Badge®, Logic® M, Buctril® M, Mextrol® 450, Thrasher®, Thumper®, Leader®, Bromotril® 240 EC, Brotex® or Pardner® may result in some initial injury in the form of "tip burn". This injury, however, will not have any adverse effect on crop maturity or yield.
- 2. Do not tank mix BISON® UNPACKED with broadleaf herbicides when applying to cereal crops underseeded to forage legumes as the forages may be injured or killed.
- 3. Tank mixes with ATTAIN® or PRESTIGE® may cause temporary crop injury if applied before the 4-leaf stage, however, yield will not normally be affected. These tank mixes may provide a lower level of wild oat control than BISON® UNPACKED alone.
- 4. Temporary crop injury may occur with registered tank mixes, in particular 2,4-D Ester/dichlorprop products, under extreme weather conditions or when the crop is suffering from stress due to inadequate or abnormally high moisture levels, or extreme temperatures. Barley may be injured with tank mixes of 2,4-D Ester/dichlorprop and Badge plus MCPA.
- 5. Herbicides not listed on this label for tank mixing with BISON® UNPACKED may be applied separately in sequence. Always apply BISON® UNPACKED first and allow at least 7 days after the application of BISON® UNPACKED before applying the other herbicide. Herbicides labelled for tank mixing with BISON® UNPACKED may also be applied sequentially, either before or after application of BISON® UNPACKED.

#### TANK MIXES OF BISON® UNPACKED WITH INSECTICIDES:

BISON® UNPACKED alone or in combination with LOGIC® M, BADGE®, BUCTRIL® M, MEXTROL® 450, BROTEX® 240, BROMOTRIL®, PARDNER® or KORIL® can be tank mixed with SILENCER® 120 EC Emulsifiable Concentrate Insecticide, MATADOR® 120EC Emulsifiable Concentrate Insecticide or DECIS® Flowable for one pass weed and insect control. Always add SILENCER® 120 EC Emulsifiable Concentrate Insecticide, MATADOR® 120EC Emulsifiable Concentrate Insecticide or DECIS® Flowable to the spray tank after the herbicides but before adding ADDIT® ADJUVANT, CARRIER, NUP 09025 ADJUVANT, MSO SPRAY ADJUVANT, DESTINATION® MSO or IPCO MSO ADJUVANT.

FOR ALL TANK MIXES, USE 0.5 litres BISON® UNPACKED per hectare PLUS THE FOLLOWING:		
MIXING PARTNER	REMARKS	
Badge®, Mextrol® 450, Logic® M, Buctril® M	Additional MCPA Ester may be added to these tank mixes to improve control of certain broadleaf weeds (i.e. hemp nettle, volunteer canola). Refer to the Bromoxynil labels for recommended MCPA Ester rates. A reduction in control of green foxtail may occur with the tank mixes of Bromoxynil and additional MCPA Ester. Maximum rate of Buctril® M is 1 L/ha. Maximum rate of Logic M/Badge®/Mextrol® 450 is 1.25 L/ha.	
ATTAIN®	Do not apply prior to the 4 leaf stage of the crop as temporary crop injury could occur, particularly in spray overlaps. Attain® A 0.6 L/ha + Attain® B 1.0 L/ha rates.	
Bromotril® 240 EC,	Maximum rate of Brotex®/Bromotril®/Koril® is 1.2 L/ha.	
Brotex®, Pardner®, Koril®	Maximum rate of Pardner is 1 L/ha.	
Thrasher®,	Maximum rate of Leader®/Thrasher®/Approve® is 1.25 L/ha.	
Leader®,	Maximum rate of Thumper® is 1 L/ha.	
Thumper®,		

Approve®	
Dichlorprop/ 2,4-D Ester	Maximum rate of 1.75 L/ha (assuming 600 g/L dichlorprop/2,4-D Ester). To ensure optimum crop safety, do not apply prior to the 4 leaf stage of the crop as per the dichlorprop/2,4-D Ester label timing.
2,4-D Ester	Maximum rate of 0.9 L/ha (assuming 600 g/L 2,4-D). Do not apply prior to the 4 leaf stage of the crop as temporary crop injury could occur, particularly in spray overlaps.
MCPA Ester	Maximum rate of 1.12 L/ha (assuming 500 g/L MCPA).
LONTREL® + MCPA Ester	Maximum rate of 0.28 L/ha + 1.12 L/ha (assuming 500 g/L MCPA). Apply between 3 leaf expanded to before flag leaf of the crop. DO NOT apply after 6 leaf stage of the crop.
CURTAIL® M	Apply between 3 leaf expanded to before flag leaf of the crop. DO NOT apply after 6 leaf stage of the crop. Maximum rate of 2 L/ha.
PRESTIGE®	For use on spring barley, durum wheat and spring wheat only. Apply postemergence when weeds are in the seedling stage (2- to 4-leaf) and when spring wheat and spring barley are in the 3-leaf to just before the flag-leaf emergence stage. Do not apply later than the flag-leaf emergence stage. Prestige® A 0.8 L/ha + Prestige® B 2.0 L/ha rates. DO NOT APPLY BY AIR.
Badge®, Logic® M, Mextrol® 450	1.25 L/ha for use on spring wheat, durum and barley only.
Buctril® M	1.0 L/ha for use on spring wheat, durum and barley only.
DECIS® Flowable	Maximum rate of 120 mL/ha.
Insecticide	NAME OF 120 M2 MA
Trophy® Herbicide Tank Mix	Apply post-emergence when weeds are in the seedling stage (2-4 leaf) and when spring wheat, durum wheat and spring barley are in the 3-leaf to flag-leaf stage. Do not apply later than the flag-leaf stage. Trophy® A Emulsifiable Concentrate Herbicide 0.6 L/ha + Trophy® B Emulsifiable Concentrate Herbicide 1.12 L/ha rates. DO NOT APPLY BY AIR
SILENCER® 120 EC Emulsifiable Concentrate Insecticide	Apply 63-83 mL/ha for control of grasshoppers.
MATADOR® 120EC Emulsifiable	
Concentrate	
Insecticide	Applic 0.4 I /leg for control of alcorous (1.41 orb.) Applic 0.6 I /leg for the formation of the formatio
STARANE® Herbicide	Apply 0.4 L/ha for control of cleavers (1-4 whorls). Apply 0.6 L/ha for control of cleavers (1-4 whorls), kochia (2-8 leaf), volunteer flax (1-12 cm) and suppression of stork's bill (1-8 leaf). Apply 0.8 L/ha for control/suppression of aforementioned weeds plus control of round-leaved mallow (1-6 leaf), and suppression of chickweed (up to 8 cm), hempnettle (2-6 leaf) and wild buckwheat (1-4 leaf).

## MIXING INSTRUCTIONS:

Follow the mixing instructions below for adding BISON® UNPACKED to the spray tank.

- Only use sprayers in good running condition with high agitation. Ensure the sprayer and pre-mix tank is cleaned according to instructions on label of the product used prior to BISON® UNPACKED. Use only clean water for the spray solution. Ensure that all inline <u>strainer</u> and <u>nozzle</u> screens in the sprayer are 50 mesh or coarser. Screens of 80 mesh size or finer should not be used.
- 2. Begin to fill sprayer tank or premix tank with clean water, and engage agitator. **Agitation must be continued throughout the entire mixing and spraying procedure.**
- 3. When the sprayer or premix tank is three quarters full of water, add BISON® UNPACKED. If more than 1 case of BISON® UNPACKED is to be used, add the BISON® UNPACKED from all cases prior to adding tank mixed products or ADDIT® ADJUVANT, CARRIER, NUP 09025 ADJUVANT, MSO SPRAY ADJUVANT, DESTINATION® MSO or IPCO MSO ADJUVANT.
- 4. If tank mixing, add the recommended product(s) next.
- 5. Lastly, add ADDIT® ADJUVANT, CARRIER, NUP 09025 ADJUVANT, MSO SPRAY ADJUVANT, DESTINATION® MSO or IPCO MSO ADJUVANT and then continue to fill tank to desired level with water.

## **GROUND SPRAYING INSTRUCTIONS:**

- 1. Apply in a spray volume of 50-100 L/ha at a pressure of 275 kPa to ensure proper dispersion, spraying characteristics and performance of BISON® UNPACKED.
- 2. Flat fan nozzles of 80° or 110° are recommended for optimum coverage. Do not use floodjet nozzles or controlled droplet application equipment. Nozzles may be angled forward 45° to enhance penetration of the crop and provide better coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50 mesh or coarser. Screens of 80 mesh or finer should not be used.
- 3. Always ensure that agitation is continued until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying. Do not begin spraying until fully resuspended. BISON® UNPACKED must be sprayed within the same day of mixing.
- 4. When spraying is completed and prior to using other products, ensure the sprayer tank is thoroughly rinsed with clean water to remove any remaining BISON® UNPACKED residues. Using a pressure washer and the addition of a detergent or AGRAL® 90 to the rinse water will enhance removal of residues.

## **AERIAL APPLICATION**

## **Generic Aerial Application Label Instructions - Directions for Use**

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

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

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

#### **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.

#### **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 over long-sleeved shirt, long pants 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.

#### **AERIAL SPRAYING INSTRUCTIONS:**

- 1. Apply in a spray volume of 30 to 45 L/ha at a pressure of 140-275 kPa to ensure proper dispersion, spraying characteristics and performance of BISON® UNPACKED.
- 2. Flat fan nozzles of 80° or 110° are recommended for optimum coverage. Do not use floodjet nozzles or controlled droplet application equipment. **Ensure that** all in-line **strainer** and **nozzle** screens in the sprayer are **50 mesh or coarser**. Screens of 80 mesh size or finer should not be used.
- 3. Always ensure that agitation is continued until spraying is completed, even if stopped for brief periods of time. If the agitation is stopped for more than 5 minutes, re-suspend the spray solution by running on full agitation prior to spraying. BISON® UNPACKED <u>must</u> be sprayed within the same day of mixing.
- 4. Do not apply BISON® UNPACKED if the wind is more than 13 km/h. This will avoid spray drift onto non- target areas.
- 5. **Do not** spray BISON® UNPACKED if tame oats are present in adjacent, downwind fields.
- 6. When spraying is completed and prior to using other products, ensure the sprayer tank is thoroughly rinsed with clean water to remove any remaining BISON® UNPACKED residues. Using a pressure washer and the addition of a detergent or AGRAL 90 to the rinse water will enhance removal of residues.
- 7. **DO NOT APPLY within 50 m of non-crop areas**. This includes fish-bearing waters, wetlands (potholes, sloughs etc.) and wildlife habitat (hedgerows, rights of way, etc.).

# READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS

#### NOTE TO USER:

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than ADAMA Agricultural Solutions Canada Ltd. (ADAMA) under the User Requested Minor Use Label Expansion program. For these uses, ADAMA has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

DIRECTIONS FOR USE		
Pest(s)	Wild Oats, volunteer oats, green foxtail, yellow foxtail, Persian Darnel.	
Rate of application	0.5 L BISON® UNPACKED / ha in 50 - 100 L of water/ ha. Add ADDIT® ADJUVANT, CARRIER, NUP 09025 ADJUVANT, MSO SPRAY ADJUVANT, DESTINATION® MSO or IPCO MSO ADJUVANT at a rate of 0.5 L/100L water (0.5% v/v).	
Site (Crop)	<ul> <li>For the following forage grasses grown for seed only:</li> <li>Seedling and established intermediate and crested wheatgrass, creeping red fescue, meadow and smooth bromegrass either underseeded to cereals or grown alone.</li> <li>For establishment of northern wheatgrass, western wheatgrass and slender wheatgrass.</li> </ul>	
Application Timing	Prior to tillering of the weeds (< 4 leaf stage)	
Pre-Harvest Interval	NA	
OTHER	DO NOT APPLY BY AIR. Do not feed or graze forage crops, sufficient data are not available to support this use. One application per season.	

## **CAUTIONS:**

Do not tank mix BISON® UNPACKED with other herbicides, insecticides, fungicides, fertilizers, micronutrients or adjuvants other than those listed on this label, when applying to these forage grasses. Apply BISON® UNPACKED prior to tillering of the weeds. Applications made after the weeds have tillered may result in unacceptable weed control due to poor crop competition compared to cereal crops.

Crop injury or slight yield reductions may be expected following treatment in the year of establishment, however, the injury is transient and the crop will recover the following year.

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, BISON® UNPACKED is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to BISON® UNPACKED and other Group 1 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 BISON® UNPACKED or other Group 1 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 partners.
- 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 (weedcompetitive 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 your local Adama Agricultural Solutions Canada Ltd. representative, or call 1 855-264-6262.

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