BOOKLET

GROUP 2 HERBICIDE

SAMURAI® HERBICIDE

COMMERCIAL (AGRICULTURAL)

WATER DISPERSIBLE GRANULAR HERBICIDE IN WATER-SOLUBLE BAGS

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND INTERIOR OF BRITISH COLUMBIA (INCLUDING THE PEACE RIVER REGION) ONLY

ACTIVE INGREDIENT: Imazamox70%

REGISTRATION NO. 33033 PEST CONTROL PRODUCTS ACT

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

WARNING - EYE IRRITANT

DO NOT SELL INDIVIDUAL WATER-SOLUBLE BAGS SEPARATELY

NET CONTENTS: 470 g (4 x 117.5 g water-soluble bags)

For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC 1-800-424-9300 / +1 703-527-3887

NewAgco, Inc. 320 22nd Street East Saskatoon (Sask.) S7K 0H1 Canada 1-844-269-3276 Distributed by: **AgraCity Crop & Nutrition Ltd** 320-22nd Street East Saskatoon (Sask.) S7K 0H1 Canada 1-844-269-3276

ASSASSIN®, BOA®, and SAMURAI® are registered trademarks of AgraCity Crop & Nutrition Ltd or its affiliates.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN.

DO NOT APPLY BY AIR.

Skin irritant.

WARNING - EYE IRRITANT

May cause eye damage.

Wear a long-sleeved shirt and long pants during all activities, and wear chemical-resistant gloves and goggles or face shield during mixing/loading, clean-up and repair activities.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Apply only 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.

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.

STORAGE

Store above 5°C.

Store this product away from food or feed.

Keep unused water-soluble bags in resealed original container.

Keep packages dry at all times.

Keep packages out of rain.

Keep from freezing.

DISPOSAL

- 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
- 2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
- 3. Make the empty container unsuitable for further use.
- 4. Dispose of the container in accordance with provincial requirements.
- 5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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 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.

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination

FOR FIELD PEAS AND CLEARFIELD® LENTILS (lentil varieties with the Clearfield trait)

DIRECTIONS FOR USE (Prairie Provinces and Interior of British Columbia only)

SAMURAI HERBICIDE is a selective herbicide that can be applied as an early postemergence treatment in field peas and Clearfield lentils.

When **SAMURAI HERBICIDE** is applied early post-emergence, absorption may occur through both the roots and foliage. Susceptible weeds stop growing and eventually die.

Apply using ground equipment only. DO NOT APPLY BY AIR.

DO NOT apply more than once per year.

DO NOT graze the treated field peas or Clearfield lentils or cut for hay within 20 days of application.

Pre-harvest Interval: After 60 days, field peas and Clearfield lentils can be harvested.

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.

DO NOT apply by air.

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.

Spray Buffer Zones

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

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, riparian areas and shrublands).

Method of Application	Crop	Spray buffer zones (metres) Required for the Protection of Terrestrial Habitat
Field sprayer	All crops	1

When tank mixes are permitted, consult the label 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.

BROADLEAF WEED AND GRASS CONTROL

SAMURAI HERBICIDE at 21 g/ha (15 g a.e./ha) will control only:

Lamb's-quarters* Volunteer spring wheat

Stinkweed (non-Clearfield tolerant wheat)

Wild mustard

SAMURAI HERBICIDE at 29 g/ha (20 g a.e./ha) will control:

Barnyard grass Volunteer barley

Volunteer canola (non-Clearfield Cleavers* tolerant canola only)

Cow cockle Green foxtail Volunteer durum wheat

Volunteer spring (non-Clearfield Green smartweed wheat

tolerant wheat) Japanese brome grass* Volunteer tame oats Kochia* Wild buckwheat* Lamb's-quarters Wild mustard Redroot pigweed

Round-leaved mallow* Russian thistle

Stinkweed

Shepherd's purse

Apply in 100 L/ha of water with MERGE®, ASSASSIN®, or ASSASSIN II Adjuvant at a rate of 0.5% v/v (e.g. 5 L of MERGE, ASSASSIN, or ASSASSIN II Adjuvant per 1000 L spray solution).

Wild oats

FOR FIELD PEAS

Application should be made from the 1 to 6 true leaf stage and after weeds have emerged. Apply when broadleaf weeds are from the cotyledon to 4-leaf stage and when grassy weeds are at the 1 to 4 true leaf or early tillering. Initial transient crop yellowing may be observed after application but this is outgrown and should not affect yield.

FOR CLEARFIELD LENTILS1 (LENTIL VARIETIES WITH THE CLEARFIELD TRAIT)

Application should be made from the 2 to 6 leaf stage of the lentil crop and after the weeds have emerged. To control broadleaf weeds, apply SAMURAI HERBICIDE from the cotyledon up to the 4-leaf stage. To control grasses, apply SAMURAI HERBICIDE from the 1 to 4-true leaf stage up until early tillering.

Tank Mix Pre-harvest / Grazing Interval

Do not harvest the treated crop within 60 days of application.

MIXING INSTRUCTIONS

- 1. Use 100 L/ha of water.
- 2. Use a 50-mesh (or coarser) filter screen.

^{* =} suppression only

- 3. Fill the spray tank with three-quarters of the required amount of clean water, start agitation and continue agitation throughout the entire mixing and spraying procedure.
- 4. Add the required amount of **SAMURAI HERBICIDE** soluble bag(s) directly into the sprayer through the tank opening.
- 5. Agitate for at least ten minutes to dissolve the herbicide. After the herbicide is dissolved, continue agitation.
- 6. If required, add the required amount of MERGE, ASSASSIN, or ASSASSIN II Adjuvant. If excess foaming occurs, a silicone anti-foaming agent may be added (e.g. HALT®).
- 7. Complete filling the tank to the desired level with water. If agitation is stopped for more than 5 minutes, re-suspend spray solution by full agitation prior to commencing spraying again.
- 8. Upon completion of spraying **SAMURAI HERBICIDE** or the tank mix, thoroughly flush tank, boom, hoses and in-line and nozzle screens with clean water to avoid possible injury to other crops.

TANK-MIX COMBINATION SAMURAI HERBICIDE + Basagran® Forte Liquid Herbicide or BOA® HERBICIDE in Field Peas

To provide broad-spectrum weed control, **SAMURAI HERBICIDE** may be tank-mixed with Basagran Forte Liquid Herbicide in field peas.

When tank-mixes are permitted, read and observe all label directions, including rates and restrictions 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.

Timing	Early post-emergence		
Rate	29 g/ha SAMURAI HERBICIDE + 894 mL/ha Basagran Forte Liquid Herbicide or BOA HERBICIDE + 2 L/ha nitrogen source** (UAN 28%)		
Water Volume	100 L/ha		
Weeds Controlled	SAMURAI HERBICIDE alone, a		
	Control	Suppression	
	Volunteer Clearfield Canola	Wild buckwheat	
	Wild mustard (Group 2 resistant)	Cleavers (including Group 2 resistant biotypes	
Remark	Application should be made from the 3 to 6 node stage of field peas and after weeds have emerged. Apply when broadleaf weeds are from the cotyledon to 4-leaf stage and when grassy weeds are at the 1 to 4-true leaf or early tillering. Initial transient crop yellowing may be observed after application but this is outgrown and should not affect yield.		
	For tank mixing, see mixing instructions.		

^{**}A reduction in grass control can be observed without the addition of nitrogen source (UAN 28%).

FOLLOW CROPPING

Initial crop injury to non-**Clearfield** canola may be observed. Avoid spray overlap as yield reduction may result. The following crops may be grown safely the year following an application:

Field peas

Clearfield Canola¹ (canola varieties with the Clearfield trait)

Non-Clearfield canola

Spring wheat

Durum wheat

Spring barley

Tame oats

Flax

Clearfield Sunflowers¹ (sunflower varieties with the Clearfield trait)

There are insufficient data for other follow crops. Conduct a field bioassay (a test strip grown to maturity) the year before growing any crop other than those listed above.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **SAMURAI HERBICIDE** is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to **SAMURAI HERBICIDE** and other Group 2 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 SAMURAI HERBICIDE or other Group 2 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 resistanceprone 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 resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.

• For further information or to report suspected resistance, contact AgraCity Crop & Nutrition Ltd. at 1-844-269-3276 or at www.AgraCity.com.

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WATER SOLUBLE BAG

SAMURAI HERBICIDE

70% Water Dispersible Granular Herbicide

COMMERCIAL

NET CONTENTS: 117.5 g

ACTIVE INGREDIENT: Imazamox ... 70% active

REG. NO. 33033 P.C.P. ACT

WARNING - EYE IRRITANT

KEEP OUT OF REACH OF CHILDREN