(Container)

EDGE® MICROACTIV® Herbicide

GROUP	3	HERBICIDE

A selective granular herbicide for preplant weed control in oilseed and pulse crops.

AGRICULTURAL

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

ACTIVE INGREDIENT: ethalfluralin 10%
granular

REGISTRATION NO. 32904 PEST CONTROL PRODUCTS ACT

POISON
WARNING - EYE AND SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

CAUTION: FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING.

NET CONTENTS: 25 kg

Gowan Company LLC
P.O. Box 5569
Yuma, AZ 85366-5569
Product Information: 1-800-960-4318

PRECAUTIONS
CAUSES SKIN AND EYE IRRITATION
HARMFUL IF INHALED
POTENTIAL SKIN SENSITIZER
HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN
AVOID CONTACT WITH SKIN, EYES AND CLOTHING
AVOID BREATHING DUST
KEEP OUT OF REACH OF CHILDREN
DO NOT APPLY BY AIR

Occupational exposure to this product may be hazardous to your health. When handling and applying pesticides, farm workers are subject to potential dermal (skin) exposure. Occupational exposure studies have shown that with the proper use of protective clothing, much of the potential exposure to EDGE MICROACTIV Herbicide can be reduced.

Wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear, and protective eyewear (goggles or face shield) during all activities, plus a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH-approved canister approved for pesticide while loading. In addition, when handling more than 110 kg a.i./day (78 ha at the maximum rate of 1.4 kg a.i./ha), wear a respirator as specified above while applying, or use a closed cab while applying. A closed cab provides both a physical barrier and respiratory protection (such as dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical-resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Change contaminated clothing daily and wash before reuse. Rinse gloves with water before removal and wash hands thoroughly before eating, drinking or smoking.

When applied as a tank-mix combination, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.

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

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

TOXICOLOGICAL INFORMATION
No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient.

AGRICULTURAL CHEMICAL
Do not ship or store with food, feed, drugs or clothing.

ENVIRONMENTAL HAZARD
Toxic to aquatic organisms. To reduce runoff from treated areas into aquatic habitats, DO NOT apply to areas with a moderate to steep slope, compacted soil, or clay. DO NOT apply when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

STORAGE
Store in areas not exposed to high temperatures or prolonged, direct sunlight. Also, do not let product remain standing in applicators under these conditions. After filling the granular applicator, close the lid immediately to avoid prolonged exposure to direct sunlight.

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.

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.

(Booklet)

Edge® MicroActiv® Herbicide

GROUP	3	HERBICIDE

A selective granular herbicide for preplant weed control in oilseed and pulse crops.

AGRICULTURAL

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

ACTIVE INGREDIENT: ethalfluralin 10%
granular

REGISTRATION NO. 32904 PEST CONTROL PRODUCTS ACT

POISON
WARNING - EYE AND SKIN IRRITANT

POTENTIAL SKIN SENSITIZER

CAUTION: FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING.

NET CONTENTS: 25 kg, 544 kg bulk bag

Gowan Company LLC
P.O. Box 5569
Yuma, AZ 85366-5569
Product Information: 1-800-960-4318

PRECAUTIONS
CAUSES SKIN AND EYE IRRITATION
HARMFUL IF INHALED
POTENTIAL SKIN SENSITIZER
HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN
AVOID CONTACT WITH SKIN, EYES AND CLOTHING
AVOID BREATHING DUST
KEEP OUT OF REACH OF CHILDREN
DO NOT APPLY BY AIR

Occupational exposure to this product may be hazardous to your health. When handling and applying pesticides, farm workers are subject to potential dermal (skin) exposure. Occupational exposure studies have shown that with the proper use of protective clothing, much of the potential exposure to Edge® MicroActiv® Herbicide can be reduced.

Wear coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear, and protective eyewear (goggles or face shield) during all activities, plus a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides or a NIOSH-approved canister approved for pesticide while loading. In addition, when handling more than 110 kg a.i./day (78 ha at the maximum rate of 1.4 kg a.i./ha), wear a respirator as specified above while applying, or use a closed cab while applying. A closed cab provides both a physical barrier and respiratory protection (such as dust/mist filtering and/or vapour/gas purification system). The closed cab must have a chemical-resistant barrier that totally surrounds the occupant and prevents contact with pesticides outside the cab. Change contaminated clothing daily and wash before reuse. Rinse gloves with water before removal and wash hands thoroughly before eating, drinking or smoking.

When applied as a tank-mix combination, read and observe all label directions, including rates, personal protective equipment, restrictions and precautions for each product in the tank-mix. Always use in accordance with the most restrictive label restrictions and precautions.

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

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

TOXICOLOGICAL INFORMATION
No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient.

AGRICULTURAL CHEMICAL
Do not ship or store with food, feed, drugs or clothing.

ENVIRONMENTAL HAZARD

Toxic to aquatic organisms. To reduce runoff from treated areas into aquatic habitats, DO NOT apply to areas with a moderate to steep slope, compacted soil, or clay. DO NOT apply when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

STORAGE

Store in areas not exposed to high temperatures or prolonged, direct sunlight. Also, do not let product remain standing in applicators under these conditions. After filling the granular applicator, close the lid immediately to avoid prolonged exposure to direct sunlight.

DISPOSAL

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.

Returnable Containers:

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

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.

GENERAL INFORMATION

Edge® MicroActiv® is a preplant herbicide to provide long-lasting control of volunteer cereal, annual grass and broadleaved weeds. EDGE MICROACTIV Herbicide controls susceptible weeds in the treated layer only, by killing seedlings as they germinate. It does not control established weeds.

GENERAL USE PRECAUTIONS

Application

- Do not apply EDGE MICROACTIV Herbicide to peat or muck soils, or soils which contain more than 15% organic matter.
- Do not apply to fields spread with manure within the last 12 months. After this period, ensure the manure has been thoroughly disintegrated and mixed into the soil to a depth of 10 to 15 cm.
- If the swath or stubble is removed by burning, cultivate once to remove the charcoal layer from the soil surface prior to EDGE MICROACTIV Herbicide application.
- Application to soils subject to prolonged periods of flooding may result in accelerated herbicide breakdown. Additionally, application to wet soils or soils in poor working condition could result in reduced weed control. See Land Preparation section of this label for further precautions.
- Do not apply to soils with less than 2% organic matter. Application to eroded knolls or grey-wooded soils with highly variable texture or organic matter may result in reduced crop stand, delayed development or reduced yields in either the treated crop or rotational crop.
- Apply uniformly at the recommended rates. Over-application caused by overlapping, improper calibration or uneven application may reduce crop stands in the treated crop or rotational crop.
- **DO NOT APPLY BY AIR**.

To avoid potential injury to future wheat rotational crops, to minimize the potential for carry over and accumulation of soil residues and to reduce the selection and spread of trifluralin resistant green foxtail, it is recommended that growers avoid applying trifluralin and/or ethalfluralin on the same land for two consecutive years.

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.

Crop Year

- Applied according to directions, EDGE MICROACTIV Herbicide will not harm the treated crops. However, seedling disease, deep planting, excessive moisture, high salt concentration, soil compaction or drought may weaken crop seedlings and increase the risk of injury, which may result in delayed crop development or reduced yields.
- To reduce the possibility of injury to the treated crop, use good quality certified seed. Seed shallow into a warm, moist firm seedbed using recommended agronomic practices which will promote rapid and even crop germination and emergence.
- CAUTION: Do not graze the treated crops or cut for hay. There are not sufficient data available to support such use.

Rotational Crop

- Applied according to label directions, EDGE MICROACTIV Herbicide will not harm rotational crops. However, seedling disease, cold weather, deep planting, excessive moisture, high salt concentrations, soil compaction or drought may weaken seedlings and increase the risk of injury, which may result in delayed crop development or reduced yields.
- Do not seed , oats, sugar beets and small-seeded grasses such as timothy, canaryseed, grass and creeping red fescue following a crop treated with EDGE MICROACTIV Herbicide.
- The persistence of EDGE MICROACTIV Herbicide is influenced by soil moisture and the majority of breakdown occurs during the growing season. If drought or extended dry periods were present in the previous year, higher levels of EDGE MICROACTIV Herbicide may be present in the soil. To reduce the possibility of injury to rotational crops, seed shallow into a warm moist seedbed using recommended agronomic practices and seeding depths. As an additional safety precaution seeding rate may be increased slightly (10%).
- When seeding a rotational crop, use good quality certified seed. Seed shallow into a warm, moist firm seedbed using recommended agronomic practices which will promote rapid and even crop germination and emergence. **Avoid deep seeding, loose seedbeds and seeding into cold soils.**
- Each crop has a specific seeding depth requirement and seeding deeper than recommended can increase the potential risk of damage to the seedling. Refer to industry or government extension published documents which outline recommended seeding practices/depths for each crop.

Western Canada Only - Do not seed wheat as a rotational crop on land if trifluralin and/or ethalfluralin has been used at an oilseed/special crop/barley rate for two consecutive crops.

Western Canada Only - When conventional tillage and incorporation use practices are followed (see Conventional Tillage Systems section), do not seed rotational crops directly into standing stubble if either trifluralin or ethalfluralin were applied in the previous crop year. Follow practices that support a quality seed bed to enhance germination and crop emergence.

Weed Resistance

Populations of green foxtail tolerant to trifluralin have developed in a number of fields in Western Canada which have had a long history of repeated trifluralin use. EDGE MICROACTIV Herbicide or trifluralin containing products (i.e., Treflan®, Bonzana or Rival, and Fortress) will not control trifluralin tolerant green foxtail. To delay selection or reduce the spread of trifluralin tolerant green foxtail, avoid the use of these products repeatedly in the same field or use a separate herbicide application for control of trifluralin tolerant green foxtail. Consult Resistance Management Recommendations section of this label for further information.

WEEDS CONTROLLED

Grasses Controlled	**Broadleaved Weeds Controlled**
barnyard grass	blueweed
crab grass	chickweed
fall panicum	corn spurry
giant foxtail	cow cockle
green foxtail♦	kochia
Johnsongrass (seedling)	lamb's-quarters
witch grass	prostrate pigweed
yellow foxtail	purslane
	redroot pigweed
	wild buckwheat

♦EDGE MICROACTIV Herbicide will not control trifluralin resistant green foxtail. See specific recommendations in GENERAL USE PRECAUTIONS section of this label.

WEEDS SUPPRESSED♦

cleavers
hemp-nettle
lady's-thumb
nightshade
Russian thistle
volunteer barley♦♦
volunteer wheat
wild oats

♦Suppression is a visual reduction in weed competition (reduced population and/or vigour) as compared to an untreated area. Competition by weeds listed as suppressed that remain in a crop will vary depending upon factors such as crop competition, the number of weed seeds in the soil and the time of weed emergence relative to crop emergence.

♦♦Suppression of volunteer barley will be enhanced by cultural and management practices which promote germination of volunteer barley prior to seedbed preparation.

CROPS REGISTERED

Western Canada

canola
field peas
mustard (yellow only)
sunflowers
alfalfa establishment
coriander
fababeans
soybeans
dry common beans (white or kidney)
dill
caraway
safflower
lentils (fall application only)

Eastern Canada

soybeans
dry common beans (white or kidney)
canola

Application Rates

For control of a wide spectrum of grasses and broadleaved weeds, follow the rate and application directions provided below. Apply prior to weed emergence. EDGE MICROACTIV Herbicide will not control weeds that are emerged at the time of treatment. Emerged weeds should be destroyed by cultivation or via a burn- down with glyphosate.

Western Canada: Spring Application - Recommended Rates of EDGE MICROACTIV Herbicide

Soil	% of Organic Matter	Rates per Hectare for Specific Soil Textures	
		Light	Medium-Heavy
		sand sandy loam	loam, silt loam, silt, sandy clay loam, silty clay loam, clay loam, silty clay, clay
brown/dark brown	(2-4% om)	8.5 kg/ha	8.5 kg/ha
black	(4-6% om)	8.5 kg/ha	11 kg/ha
deep black	(6-15% om)	11 kg/ha	11-14kg/ha♦

♦For improved results on medium-heavy texture soils with 6 to 15% organic matter, the spring application rate may be increased to 14 kg/ha in fields with high populations of weeds.

Eastern Canada: Spring Application – Recommended Rates of EDGE MICROACTIV Herbicide

Rates per Hectare for Specific Soil Textures		
Light	**Medium**	**Heavy**
sand sandy loam	loam silt loam silt sandy clay loam	silty clay loam clay loam silty clay clay
7 kg/ha	8.5 kg/ha	11 kg/ha

Western Canada: Fall Application - Recommended Rates of EDGE MICROACTIVHerbicide

Soil	Organic Matter	Rates Per Hectare
		Medium-Heavy Textured Soils
		loam, silt loam, silt, sandy clay loam, silty clay loam, clay loam, silty clay, clay
brown/dark brown	(2-4% OM)	11
black	(4-6% OM)	14 kg/ha
deep black	(6-15% OM)	14 kg/ha

DIRECTIONS FOR USE – CONVENTIONAL TILLAGE SYSTEMS

FAILURE TO FOLLOW LABEL INSTRUCTION MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. USUAL OR STANDARD SEEDING PRACTICES MAY NOT SUFFICE. READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING.

Land Preparation
If existing weed growth is too heavy to allow uniform application and incorporation, destroy established weeds by cultivation or a pre-seed burn-down using glyphosate before application of EDGE MICROACTIV Herbicide,

Application Instructions
EDGE MICROACTIV Herbicide can be applied in the fall between September 1 and prior to freeze-up for weed control the following year, or it may be applied in the spring any time up to seeding.

Apply with a properly calibrated granular herbicide applicator that applies EDGE MICROACTIV Herbicide uniformly. Avoid concentration of the material in narrow bands. Calibrate the applicator according to manufacturer's directions and check frequently during application to be sure equipment is operating correctly.

Apply EDGE MICROACTIV Herbicide to a soil surface free of large clods and incorporate in the same operation if possible. **The first incorporation must be done within 24 hours of application.**

Incorporation
To incorporate, work EDGE MICROACTIV Herbicide into the soil in two different directions. An even uniform layer of EDGE MICROACTIV Herbicide treated soil is required to obtain optimum control of germinating weed seeds. Use a tandem disc, discer or field (vibra-shank type) cultivator set to work 8 to 10 cm deep for the first incorporation. A field cultivator (vibra-shank type) is defined as an implement with 3 or 4 rows of sweeps spaced at intervals of 20 cm or less and staggered so that no soil is left unturned. The second incorporation should be a discing or cultivation in a cross direction also at 8 to 10 cm deep. Operate disc implements at 7 to 10 km/hr and cultivators at 10 to 13 km/hr. Failure to operate implements at recommended speeds and depths may result in erratic weed control due to poor distribution of EDGE MICROACTIV Herbicide in the soil (deep tillage cultivator is not recommended).

NOTE: For more effective weed control, it is recommended that the second incorporation be delayed at least 3 days following the first incorporation. This allows time for greater release of EDGE MICROACTIV Herbicide onto soil particles and assures more uniform distribution in soils.

- EDGE MICROACTIV Herbicide should not be incorporated with a field cultivator when the soil is crusted, lumpy or too wet for good mixing action.
- Disc type implements are preferred on stubble to ensure a 10 cm depth of operation and good mixing action.
- Incorporation with implements set to cut less than 8 cm deep or more than 10 cm deep may result in erratic weed control or crop damage.
- Rod weeders, harrows, deep tillage cultivators, chisel plows, vibra-chisels or hoe drills will not properly incorporate EDGE MICROACTIV Herbicide.
- Single incorporation will not properly incorporate EDGE MICROACTIV Herbicide and may result in poor weed control and/or crop damage.

<u>Tillage For Seedbed Preparation</u>
Spring tillage following fall or spring application of EDGE MICROACTIV Herbicide should be done prior to seeding when the soil is warm enough to promote germination. Use a disc or field cultivator (vibra-shank) set to cut 5 to 8 cm deep. For optimum weed control in soils with heavy wild oat populations prework early in the spring with a shallow cultivation to promote weed seed germination, followed by a 5 to 8 cm deep cultivation prior to seeding to destroy existing green growth. Avoid transplanting weed seedlings; seed into a weed- free seedbed using accepted cultural practices. Avoid excessive compaction of the soil layer treated with EDGE MICROACTIV Herbicide. Any operation that results in a more shallow or compacted treated layer may allow weeds to emerge. This compaction may result from tractor wheel tracks, implement wheels, drill press

wheels or other field operations done after incorporation. Soils are more susceptible to compaction when they are moist.

FALL APPLICATION
EDGE MICROACTIV Herbicide can be applied in the fall between September 1 and prior to soil freeze-up for weed control the following year. On all deep black soils and heavy textured soils, early fall application is preferred to allow more time for even dispersion of EDGE MICROACTIV Herbicide in the treated soil layer. Apply fall
rates and incorporate as above. **The initial incorporation must be done within 24 hours of application**. For best results, it is recommended to do both incorporations in the fall, followed by tillage (5 to 8 cm) in the spring prior to planting.

Following the two fall incorporations of EDGE MICROACTIV Herbicide, spring tillage should be done when the soil is warm enough to promote germination. Use a disc or vibra-shank cultivator set to cut 5 to 8 cm deep. Refer to Spring Application, Tillage for Seedbed Preparation section.

Following only one fall incorporation of EDGE MICROACTIV Herbicide, a second incorporation is required in the spring. Incorporate to an 8 to 10 cm depth at a cross angle to the fall incorporation. For optimum weed control, complete the spring incorporation as soon as there are good soil working conditions early in the spring. Separate tillage for seedbed preparation must still be done prior to seeding.

Special Instructions For Lentils (Fall Application Only)
1. EDGE MICROACTIV Herbicide application and at least one incorporation must be completed in the fall. Follow the Fall Application directions.
2. The seedbed should be shallowly tilled (5-8 cm) and packed just prior to seeding in the spring to ensure a firm seedbed and accurate depth of planting.
3. Seeding should be done with equipment that will place the seed uniformly and accurately. Do not seed more than 4 cm deep.
4. Use good quality seed and agronomic practices which will promote quick and even germination and emergence conditions. Avoid deep seeding, loose seedbeds and seeding into cold soils.
5. Refer to the use precaution statements regarding stresses that may lead to reduction in crop stand and vigour.

SPRING APPLICATION
EDGE MICROACTIV Herbicide can be applied and incorporated in the spring prior to seeding. Apply EDGE MICROACTIV Herbicide as
soon as there are good soil working conditions early in the spring and **complete the first incorporation within 24 hours**, using a recommended implement operated 8 to 10 cm deep. The second incorporation (8 to 10 cm) must be delayed for a minimum of 3 days following the first incorporation. For best results, it is recommended to complete a separate tillage (5 to 8 cm) for seedbed preparation at least 3 days after the second incorporation.

DIRECTIONS FOR USE - DIRECT-SEEDING SYSTEMS

General
Direct-seeding is defined as seed placement into standing stubble (including chemical fallow) with minimum soil disturbance and maximum surface residue retention. EDGE MICROACTIV Herbicide for weed control in direct-seeding systems is intended for use on soils which have been in a low disturbance, direct-seeding system with < 30% soil disturbance for at least two consecutive years. In the year of seeding, a one pass, direct-seeding operation with minimal soil disturbance (<30%) is recommended.

EDGE MICROACTIV Herbicide applied to the soil surface provides long-lasting control of susceptible weeds within the top 2.5 cm of the soil surface EDGE MICROACTIV in direct-seeding systems is adsorbed to the soil surface and will not control weeds that germinate from a deeper depth (>2.5 cm),

Land Preparation

Crop Residue Management: Straw and chaff residue management begins at harvest. Chopping, spreading and even distribution of straw and chaff residues is an effective method of straw management. Uneven distribution of crop residues may create plugging or hairpinning during the seeding operation. Poor and uneven crop emergence, cold wet soils, soil nutrient tie-up and delayed and uneven maturity may also be a result of inadequate trash management.

Preseeding (Burn Off) Weed Control
A preseeding burn-off herbicide treatment is required to eliminate weed competition prior to crop emergence. Refer to the appropriate product labels. EDGE MICROACTIV Herbicide will not control emerged weeds.

Application Instructions
EDGE MICROACTIV Herbicide for weed control in direct-seeding systems is intended for use on soils which have been in a low disturbance, direct-seeding system (i.e., <30% soil disturbance) such as a zero-tillage system, for at least two consecutive years prior to application.

Apply EDGE MICROACTIV Herbicide uniformly with a properly calibrated granular herbicide applicator. Avoid concentration of the herbicide in narrow bands. Calibrate the applicator according to manufacturer's directions and check frequently during application to ensure equipment is operating correctly. A single harrow operation assists in managing straw residue to ensure good herbicide soil contact. Avoid excessive soil disturbance.

Seeding Instructions
Use direct-seeding equipment seeding at a uniform depth to ensure seed-soil contact and rapid crop emergence. Minimum soil disturbance ensures a uniform herbicide layer at the soil surface.

FALL APPLICATION
EDGE MICROACTIV Herbicide for weed control in direct-seeding systems may be applied in the fall between October 1 and prior to soil freeze-up for weed control the following year. Apply EDGE MICROACTIV Herbicide at the fall rates listed above using a harrow operation to manage crop residue and ensure herbicide soil contact.

SPRING APPLICATION
EDGE MICROACTIV Herbicide for weed control in direct-seeding systems may be applied in the spring. Spring applications should be made at the spring application rates listed above and applied as early as field conditions permit and at least 10 days prior to seeding. The shallow harrow incorporation should be performed within 24 hours of application.

RESISTANCE MANAGEMENT RECOMMENDATIONS
For resistance management, EDGE MICROACTIV Herbicide is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to EDGE MICROACTIV Herbicide and other Group 3 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 EDGE MICROACTIV Herbicide or other Group 3 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 Gowan Company at 1-800-883-1844

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.

All other products listed are registered trademarks of their respective companies.
Edge® and MicroActiv® are registered trademarks of Gowan Company, L.L.C.