2023-4785
2024-02-22

GROUP	14	HERBICIDE

SZ-75 HERBICIDE

COMMERCIAL

Water Dispersible Granules

For preplant or preemergence use on chickpeas, field peas, soybeans and wheat (spring and durum)

ACTIVE INGREDIENT: Sulfentrazone……. 75%

REGISTRATION NO. 33832 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND BOOKLET BEFORE USING

CAUTION POISON
EYE IRRITANT

Net Contents: 100 g - Bulk

FMC of Canada Limited
6755 Mississauga Road, Suite 204
Mississauga, ON L5N 7Y2
1-833-362-7722

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 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 on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

You may also contact **1-800-331-3148** for emergency medical treatment information.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN
Hazards to Humans and Domestic Animals

Harmful if inhaled. Avoid breathing dusts. May irritate eyes. Avoid contact with eyes.

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.

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.

RESTRICTED-ENTRY INTERVAL

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

IMPORTANT

- **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. For any requirements specific to your area, consult the provincial agency responsible for pesticide regulation.
- **DO NOT** apply more than the allowed amount per hectare per 24-month period. The 24-month period is considered to begin upon the initial application.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear cotton coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair. Applicators must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Gloves are not required during application within a closed cab.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Remove clothing immediately if pesticide gets inside. Then bathe thoroughly and put on clean clothing.

ENVIRONMENTAL PRECAUTIONS

Toxic to small wild mammals.

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

Sulfentrazone is persistent and may carryover. It is recommended that this product not be used in areas treated with any products containing sulfentrazone during the previous 24 months.

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. **DO NOT** use on coarse soils.

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.

STORAGE

Store this product away from food or feed.

Store in original containers only. Store containers in a dry location. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

DISPOSAL

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.

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

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 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.

**IN CASE OF EMERGENCY, CALL TOLL FREE,
DAY OR NIGHT: 1-800-331-3148**

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Booklet

GROUP	14	HERBICIDE

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GENERAL INFORMATION

SECTION 1: 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: PRODUCT INFORMATION

SZ-75 Herbicide is a selective soil applied herbicide for the extended control or suppression of labelled weeds in chickpeas, field peas, soybeans and wheat (spring and durum).

SZ-75 Herbicide is a water dispersible formulation containing 75% of the active ingredient, sulfentrazone intended for dilution with water for application.

SZ-75 Herbicide is taken up by the plant roots and shoots.

Observe all instructions, mixing directions, application precautions and other label information for SZ-75 Herbicide.

For information regarding the use of this product, visit https://ag.fmc.com/ca/en.

SAFETY AND HANDLING

SECTION 3: PROPER HANDLING INSTRUCTIONS

SZ-75 Herbicide may not be mixed or loaded within 15 metres of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams or rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 15 metres of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. Provinces may have in effect additional requirements regarding wellhead setbacks and operational containment.

SZ-75 Herbicide must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

FIRST AID

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 on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.
If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.
If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

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

You may also contact **1-800-331-3148** for emergency medical treatment information.

TOXICOLOGICAL INFORMATION
Treat symptomatically.

SECTION 5: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN
Hazards to Humans and Domestic Animals

Harmful if inhaled. Avoid breathing dusts. May irritate eyes. Avoid contact with eyes.

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.

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.

RESTRICTED-ENTRY INTERVAL

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

IMPORTANT

- **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. For any requirements specific to your area, consult the provincial agency responsible for pesticide regulation.
- **DO NOT** apply more than the allowed amount per hectare per 24-month period. The 24-month period is considered to begin upon the initial application.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear cotton coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, clean-up and repair. Applicators must wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Gloves are not required during application within a closed cab.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Remove clothing immediately if pesticide gets inside. Then bathe thoroughly and put on clean clothing.

SECTION 6: ENVIRONMENTAL PRECAUTIONS

Toxic to small wild mammals.

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

Sulfentrazone is persistent and may carryover. It is recommended that this product not be used in areas treated with any products containing sulfentrazone during the previous 24 months.

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. **DO NOT** use on coarse soils.

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.

SECTION 7: STORAGE

Store this product away from food or feed.

Store in original containers only. Store containers in a dry location. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

SECTION 8: DISPOSAL

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.

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

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 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.

**IN CASE OF EMERGENCY, CALL TOLL FREE,
DAY OR NIGHT: 1-800-331-3148**

DIRECTIONS FOR USE

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.

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.

SECTION 9: 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, riparian areas and shrublands) and sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of:		
		Freshwater Habitat of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	
Field sprayer	Chickpea, Field Pea, Soybean, Spring Wheat, Durum Wheat	1	0	10

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 Pesticides portion of the Canada.ca website.

SECTION 10: CROPS AND WEEDS

SECTION 10.1: CROPS

SZ-75 Herbicide may be applied to pre-plant or pre-emergent to chickpeas, field peas, soybeans and wheat (spring and durum).

SZ-75 Herbicide does not control emerged weeds.

SECTION 10.2: WEEDS CONTROLLED/SUPPRESSED

When used as directed, SZ-75 Herbicide alone and tank mixed with glyphosate will provide control or suppression of the weeds listed in the following tables.

Crops	Rate of SZ-75 Herbicide	Weeds Controlled[1]	Weeds Suppressed[1]
Wheat (spring and durum)	140 g/ha	Kochia (including Group 2 and 9 resistant biotypes)	Russian thistle

Crops	Rate of SZ-75 Herbicide	Weeds Controlled[1]	Weeds Suppressed[1]
Chickpeas Field peas Soybeans		Lamb's-quarters Redroot pigweed Powell (green) pigweed	
Chickpeas Field peas Soybeans	187 g/ha	Above weeds plus: Common groundsel Common purslane Common waterhemp Eastern black nightshade Large crabgrass Smooth crabgrass Wild buckwheat Yellow woodsorrel	Above weeds plus: Cleavers

[1]Controls or suppresses weeds not emerged at the time of treatment.
Apply in a minimum of 100 L of water per ha.
Do not apply to coarse-textured soil.
Do not apply to soil with an organic matter content less than 1.5% or greater than 6%.
Do not apply to soil with a pH of 7.8 or greater.
Make only one pre-plant or pre-emergence application every other year.
SZ-75 Herbicide can be applied once per 24-month period. Do not apply additional products containing sulfentrazone in this 24-month period. The 24-month period is considered to begin when the initial application of SZ-75 Herbicide is applied.
Do not apply this product in the spring prior to planting spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall.

SZ-75 Herbicide + Glyphosate

Crops	Use rate of SZ-75 Herbicide	Use rate of glyphosate
Wheat (spring and durum)	140 g/ha	450 - 900 g ae/ha
Chickpeas Field peas Soybeans	140 - 187 g/ha	

Apply in a minimum of 100 L of water per ha.
Do not apply to coarse-textured soil.
Do not apply to soil with an organic matter content less than 1.5% or greater than 6%.
Do not apply to soil with a pH of 7.8 or greater.
Make only one pre-plant or pre-emergence application every other year.
Do not apply this tank mix to spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall.
Follow all directions on the glyphosate product label.

Soil Parameters
SZ-75 Herbicide must only be applied to soils that fall within the parameters outlined in the table

below.

Soil Texture	Soil Type	Organic Matter	pH
Fine	Silty clay loam, silty clay, clay loam, clay	1.5 - 6%	<7.8
Medium	Sandy clay loam, sandy clay, loam, silt loam, silt		
Coarse	Sand, loamy sand, sandy loam	DO NOT USE	

Do not apply to soil classified as coarse-textured.
Do not apply to soil with organic matter content less than 1.5% or greater than 6%.
Do not apply to soil with a pH of 7.8 or greater.

General Restrictions

SZ-75 Herbicide can be applied once in a 24-month period. DO NOT apply any additional products containing sulfentrazone during this 24-month period. The 24-month period is considered to begin when the initial application of SZ-75 Herbicide is applied.

Application Timing

Spring Application
SZ-75 Herbicide can be applied in the spring pre-plant or pre-emergence up the three-days after seeding.

Do not mechanically incorporate as this can destroy the herbicide barrier and allow weeds to escape.

Refer to “SECTION 10.3: FIELD CROPS” for full application instructions for each crop.

Fall Application
In Western Canada only, SZ-75 Herbicide, can be applied in the fall at 140 g product/ha to control or suppress labelled weeds prior to planting chickpeas, field peas, soybeans and wheat (spring and durum) the following spring. SZ-75 Herbicide should be applied to stubble or soil surface to allow moisture from rainfall or snowmelt to move the product into the soil. Apply the product in the fall when the average soil temperature is below 10^{o}C.

Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allow weeds to escape.

Do not apply to frozen soils or existing snow cover to prevent run-off of SZ-75 Herbicide.

Refer to “SECTION 10.3: FIELD CROPS” for full application instructions for each crop.

SECTION 10.3 FIELD CROPS

CHICKPEAS, FIELD PEAS, SOYBEANS, SPRING WHEAT AND DURUM WHEAT

Make only one pre-plant or pre-emergence application every other year in the spring. Apply in a minimum of 100 L of water per hectare.

Alternatively, in Western Canada only, SZ-75 Herbicide can be applied in the fall at 140 g product/ha to control or suppress labelled weeds prior to planting chickpeas, field peas, soybeans or wheat (spring and durum) the following spring. Refer to “Timing of Application” section for directions for fall application.

Restrictions

- DO NOT mechanically incorporate in the fall or spring.
- DO NOT apply to frozen soils or existing snow cover.
- SZ-75 Herbicide can be applied once in a 24-month period. DO NOT apply any product containing sulfentrazone during this 24-month period. The 24-month period is considered to begin when the initial application of SZ-75 Herbicide is applied.
- DO NOT apply SZ-75 Herbicide (or any other product containing sulfentrazone) to spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall.
- DO NOT apply FOCUS® Herbicide (or any other product containing pyroxasulfone) to spring wheat in the spring following a fall application of SZ-75 Herbicide.

APPLICATION INFORMATION

SZ-75 Herbicide should be applied as a uniform broadcast soil application.

For best control, SZ-75 Herbicide should be applied when there are no weeds present or a burndown herbicide is tank mixed to eliminate emerged weeds.

A minimum of 100 L of spray solution per ha should be used to ensure uniform spray coverage. Nozzle selection should meet manufacturer’s spray volume and pressure recommendations for preemergence and postemergence herbicide applications. The spray solution should have a pH between 5.0 and 9.0.

Best results are obtained when the soil is moist at the time of application and the application will be followed by at least 13 mm of rainfall or sprinkler irrigation within two weeks after application. Applications should be timed to take advantage of normal rainfall patterns and cool temperatures, especially where drip or micro sprinkler irrigation is used which may not uniformly incorporate the herbicide.

Restrictions

- Use ground equipment only. Do not apply SZ-75 Herbicide by air. Do not apply using a mechanically pressurized handgun.
- Do not apply to powdery soils or soils where wind may displace the soil, unless irrigation can be applied immediately after application.
- Follow the most restrictive label of tank mix partners including all references to potential carryover and crop injury warnings and restrictions.

WEED CONTROL INFORMATION

SZ-75 Herbicide is a selective soil-applied herbicide for the extended control or suppression of labelled weeds. Adequate moisture of at least 13 mm is required within 14 days after application for optimal control. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of 13 mm of water. When activating moisture is delayed, a reduced level of weed control may occur. These escaped weeds can be removed using a burndown herbicide.

Tank mix SZ-75 Herbicide with a burndown herbicide and use an appropriate adjuvant (if required) when weeds are present at the time of application. Refer to the tank mix partner's product label for the proper use rates by weed sizes. Use the most restrictive label limitations and precautions of the tank mix product(s).

Extended weed control may be reduced when SZ-75 Herbicide is applied where heavy crop trash such as leaves and branches and /or weed residues exists. It is best to rake or blow off the leaves and trash when they fall and prior to the SZ-75 Herbicide application.

SECTION 10.4: TANK MIXES

This product may be tank mixed 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 FMC of Canada Limited at 1-833-362-7722 for information before applying any tank mix that is not specifically recommended on this label.

Do not tank mix with Chateau® herbicides (flumioxazin) or with other products containing sulfentrazone. DO NOT apply SZ-75 Herbicide with products containing tiafenacil.

CHICKPEAS, FIELD PEAS, SOYBEANS, SPRING WHEAT AND DURUM WHEAT

Crops	Use Rate of SZ-75 Herbicide	Tank Mix Partner	Tank Mix Partner Use Rate
Wheat (spring and durum)	140 g/ha	PJ997 Herbicide or CF Herbicide + Glyphosate (optional)	22 – 70 g product/ha + 450 – 900 g ae/ha
Chickpeas Field peas	140 - 187 g/ha		
For the burndown and extended control of labelled weeds in chickpeas, field peas, soybeans and wheat (spring and durum). When applied without glyphosate, this tank mix requires the addition of Agral® 90* or Ag-Surf®** at 0.25% v/v (0.25 litres per 100 litres of spray solution) or Merge® Adjuvant at 1% v/v (1 litre per 100 litres of spray solution). Do not apply to soil with an organic matter content less than 1.5% or greater than 6%. Do not apply to coarse-textured soil. Do not apply to soil with a pH of 7.8 or greater. Make only one pre-plant application every other year. Do not apply this tank mix to spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall. Follow all directions on the PJ997 Herbicide or CF Herbicide and glyphosate product labels. * Choose one of Agral 90 Non-Ionic Wetting & Spreading Agent or Agral 90 Non-Ionic Liquid Wetting & Spreading Agent.			

** Choose one of IPCO Ag-Surf Original, Weedaway Ag-Surf Liquid Spray Adjuvant, IPCO Ag-Surf II or Weedaway Ag-Surf II.

FIELD PEA, SOYBEAN, SPRING WHEAT AND DURUM WHEAT

Crops	Use Rate of SZ-75 Herbicide	Tank Mix Partner	Tank Mix Partner Use Rate
Wheat (spring and durum)	140 g/ha	EXPRESS® SG Herbicide or NC-0050 Herbicide + Glyphosate	15 g/ha + 450 - 810 g ae/ha
Field peas Soybeans	140 - 187 g/ha		

For control of broadleaf weeds and grasses pre-seed to field pea, soybean and wheat (spring and durum).

Apply SZ-75 Herbicide at 140 g/ha for wheat (spring or durum) or 140 – 187 g/ha for field peas and soybeans, plus EXPRESS® SG Herbicide at 15 g/ha, tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt) at 450 - 810 g ae/ha in a total spray volume of 100 L/ha.

Alternatively, in Western Canada only, this tank mix can be applied in the fall after harvest at 140 g product/ha if field peas, soybeans or wheat (spring and durum) are to be planted the following spring. Refer to “Timing of Application” section for directions for fall application.

Fields treated with this tank mix can be seeded to field pea, soybean or wheat (spring and durum) a minimum of 24 hours after application.

Injury to pulse crops may occur on coarse-textured soils, low in organic matter (less than 3%), or in fields with variable soils, gravely areas, sandy areas or eroded knolls. Avoid planting pulse crops in soils containing more than 50% sand.

Do not apply to soil with an organic matter content less than 3% or greater than 6%.
Do not apply to coarse-textured soil.
Do not apply to soil with a pH of 7.8 or greater.
Make only one pre-plant application every other year.
Do not apply this tank mix to spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall.
Follow all directions on the EXPRESS® SG Herbicide or NC-0050 Herbicide and glyphosate product labels.

SPRING WHEAT AND DURUM WHEAT IN THE PRAIRIE PROVINCES AND INTERIOR OF BRITISH COLUMBIA

Crops	Use Rate of SZ-75 Herbicide	Tank Mix Partner	Tank Mix Partner Use Rate
Wheat (spring and durum)	140 g/ha	EXPRESS® FX Herbicide or DB-878 Herbicide + Glyphosate	115 g/ha + 450 – 810 g ae/ha

Apply SZ-75 Herbicide at 140 g/ha plus EXPRESS® FX or DB-878 Herbicide at 115 g/ha, tank mixed with glyphosate (present as potassium salt, isopropylamine salt, ammonium salt) at 450 – 810 g ae/ha in a total spray volume of a minimum 100 L/ha. Fields treated with this tank mix can be seeded to spring wheat or durum wheat a minimum of 24 hours after application. Do not apply to soil with an organic matter content less than 1.5% or greater than 6%. Do not apply to coarse-textured soil. Do not apply to soil with a pH of 7.8 or greater. Make only one pre-plant application every other year. Do not apply this tank mix to spring wheat if an application of FOCUS® Herbicide (or any other product containing pyroxasulfone) was applied in the previous fall. Follow all directions on the EXPRESS® FX Herbicide, DB-878 Herbicide and glyphosate product labels.			

FOR USE ON SOYBEANS IN EASTERN CANADA ONLY

Apply SZ-75 Herbicide at 140-187 g/ha with the following tank mix partner options in a total minimum spray volume of 100 L/ha. Make only one pre-plant or pre-emergence application every other year.

Follow the most restrictive label of tank mix partners including all references to potential carryover and crop injury warnings and restrictions.

Crops	Use Rate of SZ-75 Herbicide	Tank Mix Partner	Tank Mix Partner Use Rate
Soybeans	140 - 187 g/ha	Classic™ Herbicide	36 g/ha
		Classic™ Herbicide + Glyphosate	36 g/ha + 900 g ae/ha
		Boundary® LQD Herbicide[1]	1.85-2.5 L/ha
		Pursuit® Herbicide + Sencor® for soybeans	312 – 420 mL/ha + 0.8 – 2.0 L/ha
		Frontier® Max Herbicide	756 – 963 ml/ha
		Sencor® 480F	0.85 - 2.25 L/ha
		Sencor® 75 DF	0.55 – 1.5 kg/ha
		Metribuzin Mx 75 DF Herbicide	0.55 – 1.5 kg/ha

Crops	Use Rate of SZ-75 Herbicide	Tank Mix Partner	Tank Mix Partner Use Rate
		Pursuit® Herbicide	420 mL/ha
		FOCUS® Herbicide	224 mL/ha (set-up rate) OR 280 – 336 mL/ha (residual rates)
		FirstRate™ Herbicide[2]	20.8 – 41.7 g/ha
		Broadstrike™ RC Herbicide[3]	87.5 g/ha
[1]Do not use the tank mix with Boundary LQD Herbicide on soils with a pH of 7.5 or greater. Do not use any other tank mix on soils with a pH of 7.8 or greater. [2]Apply FirstRate Herbicide as a preemergence application only every other year. Do not harvest soybean plants for forage or hay. Do not harvest soybeans for 65 days after application. Make only one pre-plant or pre-emergence application every other year for all other tank mixes. [3]Do not graze the treated soybean crop or cut for hay; sufficient data are not available to support such use. Do not apply to soil with an organic matter content less than 1.5% or greater than 6%. Do not apply to coarse-textured soils. Follow all directions on the tank mix partner's product label.			

Consult the labels of tank mix partners for specific instructions of "Directions for Use" and restrictions.

APPLICATION INFORMATION

PREEMERGENCE APPLICATION:

- SZ-75 Herbicide alone, or in the recommended tank-mixes, may be applied to the soil surface as a broadcast spray up to 3 days after planting of the crop, but prior to weed emergence or crop germination.
- Pre-emergence application may be made in all tillage systems (conventional, conservation, minimum, ridge, etc.).
- Rainfall and/or overhead sprinkler irrigation is necessary to move SZ-75 Herbicide into the upper soil surface where weed seeds germinate.
- Dry weather conditions as well as excessive rainfall or irrigation following application may reduce weed control.
- Do not apply heavy irrigation immediately after application.

These Crop Specific Use directions are based upon the interactive effects of SZ-75 Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance presented under General Application Instructions, General SZ-75 Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weeds

Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SZ-75 Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SZ-75 Herbicide under specific local conditions.

SECTION 11: APPLICATION INFORMATION

SECTION 11.1: GENERAL APPLICATION INSTRUCTIONS

SZ-75 Herbicide can be applied with conventional ground spraying equipment.

SZ-75 Herbicide may be applied pre-plant or pre-emergence **AS A SINGLE GROUND APPLICATION**. SZ-75 Herbicide can be applied prior to planting or up to 3 days after planting, but before seed germination. When applications after planting are delayed greater than 3 days, injury may occur if seeds are germinating. SZ-75 Herbicide applied near or after crop emergence may cause severe injury to the crop. Do not make fall applications to a crop unless it is specifically recommended on this label.

Water must be used as the carrier for SZ-75 Herbicide. Do not allow spray mixtures to sit overnight due to potential settling of product and difficulty in resuspending may occur. Avoid spray drift to adjacent plants as injury to other plants may occur.

Ground Application

Utilize a boom and nozzle sprayer or boomless ground sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and pressures that produce a medium spray as classified by the American Society of Agricultural Engineers (ASAE) to avoid spray drift or inadequate foliar and soil coverage. Consult with spray nozzle manufacturer's charts to determine the correct nozzle and pressure combination required to achieve a medium spray. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and soil coverage. Do not exceed 175 kPa spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 100 litres of finished spray per hectare by ground. Be aware that spray pattern overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Spray Drift Management

Minimizing spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Controlling Spray Droplet Size

Volume: Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure: When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure. Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles for ground applications. Use 50 mesh filter screens or larger (metal or nylon).

Consult with spray nozzle manufacturer's charts to determine the correct nozzle and pressure combination required to achieve a medium spray.

Rainfall Requirement

All soil applications of SZ-75 Herbicide require adequate moisture (at least 13 mm) for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and pH. In crop situations, dependent on rainfall, SZ-75 Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, SZ-75 Herbicide will provide activity on newly germinating or emerging weeds. In circumstances where prolonged periods without rainfall or irrigation are not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

When activating moisture is received after dry conditions, SZ-75 Herbicide may provide a reduced level of control of susceptible germinating weeds. Soil applications of SZ-75 Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface.

Mode of Action

Sulfentrazone, the active ingredient in SZ-75 Herbicide, is a potent inhibitor of the enzyme Protoporphyrinogen Oxidase IX (Protox) required for the formation of chlorophyll. Inhibition of the PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action

Following the application of SZ-75 Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter fractions of soils effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart.

Influence of Soil Type, Organic Matter and pH on SZ-75 Herbicide Use Rates and Crop Response

Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content. Soil pH also exerts a dramatic effect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Determining soil pH requires an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (primarily clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that SZ-75 Herbicide can await activating moisture; however, diminished weed control may result due to the successive increase in weed growth between application and timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following an SZ-75 Herbicide soil application can also significantly increase the amount of sulfentrazone available, in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial SZ-75 Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and its growth stage when irrigated. The risk of adverse crop response will lessen with the advances in growth stages among most crops.

Sulfentrazone is persistent and will last in the soils (carryover) for one to two years. DO NOT APPLY SZ-75 HERBICIDE TO FIELDS PREVIOUSLY TREATED WITH SZ-75 HERBICIDE or any other product that contains sulfentrazone IN CONSECUTIVE YEARS (24 MONTHS). In case of drought in any of those years, a subsequent application of SZ-75 Herbicide should be further delayed by the equivalent number of years in which drought occurred. SZ-75 Herbicide requires at least 13 mm of rain or irrigation water to be effective.

SECTION 11.2: ROTATIONAL CROP GUIDELINES

The following table shows the minimum interval in months from the time of the last SZ-75 Herbicide application until SZ-75 Herbicide (or AUTHORITY® 480 Herbicide) treated soil can be replanted to the crops listed as follows.

Rotational crops and replant intervals for SZ-75 Herbicide.

Rotational Crop	Replant Interval (Months)
Chickpea, field pea, soybeans, wheat (spring and durum; low rate only)	0
Winter wheat	4
Alfalfa, broccoli, barley, cabbage, canary grass, canola, cauliflower, corn (field), faba bean, flax, horseradish, potato, oats, sunflower, tame mustard, tomato (transplants), wheat (spring and durum; high rate)	12
Corn (sweet and pop), lentils, sorghum	24

For crops listed in the rotational crop table, the minimum replant interval listed in the table must be observed. For crops not listed in the rotational crop table, A MINIMUM ROTATIONAL CROP INTERVAL OF 36 MONTHS must be observed and a representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.

If there is a lack of adequate or normal soil moisture due to drought conditions following an application of SZ-75 Herbicide, the minimum rotational crop interval listed in the table must be extended for one additional year and a representative bioassay of the field must be conducted with the potential rotational crop and adequate soil moisture to determine the crop sensitivity to SZ-75 Herbicide.
REPLANTING INSTRUCTIONS

If initial planting of labeled crops fails to produce a stand, only labeled crops for SZ-75 Herbicide, may be planted. **DO NOT** retreat field with SZ-75 Herbicide. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

SECTION 12: MIXING AND LOADING INSTRUCTIONS

Spray Tank Preparation

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding SZ-75 Herbicide to the tank.

Mixing and Loading Instructions

SZ-75 Herbicide is a water dispersible granule intended for dilution with water. For best results, fill spray tank with one third to one half of the volume of clean water needed for the area to be treated. Start the agitation system. Slowly add the SZ-75 Herbicide to the spray tank. Continue to agitate for a minimum of 5 minutes to ensure that SZ-75 Herbicide is completely dissolved. When there are no undissolved granules, complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure SZ-75 Herbicide is thoroughly mixed before application.

Use the SZ-75 Herbicide mixture immediately after mixing.

Do not store the sprayer overnight or for any extended period of time with the sulfentrazone spray mixture remaining in the tank.

Premixing SZ-75 Herbicide spray solutions in nurse tanks is not recommended.

Tank Mixtures: Fill spray tank one-half to two-thirds full of water; with agitator operating add the recommended amount of ingredients using the following order:

- **W**ettable powders and dispersible granules
- **A**gitate tank mix thoroughly

- **M**icro-encapsulated suspensions
- **L**iquid flowables and suspensions
- **E**mulsifiable concentrate formulations
    - Fill spray tank nearly full of water
- **G**lyphosate formulations
- **S**urfactants
    - Complete filling the spray tank to the desired level

Maintain agitation during filling, mixing and application. When using drift reducing agents, follow specific product label instructions for order of addition to spray tank.

SECTION 13: SPRAYER EQUIPMENT CLEANOUT

After spraying SZ-75 Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then thoroughly flush all sprayer hoses, booms, and nozzles with clean water.

2. Prepare a sprayer cleaning solution by adding three litres of ammonia (containing at least 3% active) per 100 litres of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and all strainers and screens separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with provincial guidelines and regulations.

Do not drain or flush equipment on or near desirable trees or plants.
Do not contaminate any body of water including irrigation water that may be used on other plants or crops.

SECTION 14: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, SZ-75 Herbicide is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to SZ-75 Herbicide and other Group 14 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:

- 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.
- Where possible, rotate the use of SZ-75 Herbicide or other Group 14 herbicides within a growing season (sequence) or among growing seasons with different groups that control the same weeds in a field.
- 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 FMC at https://ag.fmc.com/ca/en