

(Base Label)

GROUP 3 HERBICIDE

NUFARM
RIVAL 10G
SUPERFLOW
GRANULAR HERBICIDE

FOR SALE FOR USE IN THE PRAIRIE PROVINCES AND PEACE RIVER REGION OF
BRITISH COLUMBIA ONLY

For Pre-Emergent Control of Grassy and Broadleaf Weeds in a Number of Field Crops.

COMMERCIAL

POTENTIAL SKIN SENSITIZER

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: Trifluralin ... 10.0 %

REGISTRATION NO. 18926 PEST CONTROL PRODUCTS ACT

Net Contents: 22.7 kg

Nufarm Agriculture Inc.
5101, 333 - 96th Ave NE
Calgary, Alberta T3K 0S3
Tel: 1-800-868-5444

24 Hour Emergency Response Number 1-800-424-9300

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. POTENTIAL SKIN SENSITIZER. Avoid contact with eyes, skin and clothing. Wash hands and arms thoroughly after application. Avoid contamination of feed and foodstuffs. Do not contaminate any body of water. Keep in original bag during storage.

All handlers must wear a long-sleeved shirt and long pants. In addition, wear chemical-resistant gloves during mixing/loading, repair and clean-up activities. **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

ENVIRONMENTAL HAZARDS

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

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil or clay. Avoid application of the product when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced, by including a vegetative strip between the treated area and the edge of the water body.

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

Do not store under direct sunlight. Store in areas of cool temperatures. Do not store in granular applicators for a prolonged period of time (maximum 24 hours).

DISPOSAL

NON-REUSABLE BAGS:

- Do not reuse this bag for any purpose
 - Thoroughly empty contents of the bag into the application device.
-
- Make the empty bag unsuitable for further use.
 - Dispose of the bag in accordance with provincial requirements.

REUSABLE BAGS:

The outer bag is reusable. Do not damage. For disposal, the outer bag 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 outer bag for any other purpose.

- Thoroughly empty contents of the bag into the application device.
-
- Make the empty bag unsuitable for further use.
 - Dispose of the liner in accordance with provincial requirements.

DISPOSAL OF UNUSED, UNWANTED PRODUCT:

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for cleanup 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. The user assumes the risk to persons or property that arises from any such use of this product.

(Booklet)

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All handlers must wear a long-sleeved shirt and long pants. In addition, wear chemical-resistant gloves during mixing/loading, repair and clean-up activities. **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

ENVIRONMENTAL HAZARDS

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To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil or clay. Avoid application of the product when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced, by including a vegetative strip between the treated area and the edge of the water body.

FIRST AID

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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.

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TOXICOLOGICAL INFORMATION

Treat symptomatically.

STORAGE

Do not store under direct sunlight. Store in areas of cool temperatures. Do not store in granular applicators for a prolonged period of time (maximum 24 hours).

DISPOSAL

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 - Thoroughly empty contents of the bag into the application device.
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- Make the empty bag unsuitable for further use.
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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 cleanup of spills.

NOTICE TO USER

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DIRECTIONS FOR USE

GENERAL INFORMATION

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Discard clothing or other absorbent materials that have been heavily contaminated with this product. DO NOT reuse them. Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

To minimize the release of trifluralin into the environment due to volatilization, trifluralin should only be applied on cool mornings and evenings when air temperatures are 15°C or lower. To further reduce volatilization to the atmosphere, incorporation into the soil should occur concurrently with application.

REGISTERED CROPS

RIVAL 10G is a specially formulated herbicide for the control of certain annual grassy and broadleaf weeds in Rapeseed (Canola), Barley (Fall application only), Flax (except low linolenic acid varieties, Summer and Fall application only), Sunflowers, Mustard, Lentils (Fall and Summer application only), Peas (Field and Processing), Fababeans, and Triazine Tolerant Rapeseed (Canola). RIVAL 10G can also

be used on summerfallow followed by Wheat in rotation providing weed control in both years; as well, it can be applied in the Fall on summerfallow or stubble for Green and Yellow Foxtail control the following year in Wheat. See the Special Section titled "DIRECTIONS FOR USE IN WHEAT".

RIVAL 10G MUST NOT BE USED ON ANY CROP FOR WHICH IT IS NOT REGISTERED.

CAUTION

Do not graze the treated crops or cut for hay; there are not sufficient data available to support such use.

FALL APPLICATIONS OF PRE-EMERGENCE HERBICIDES

For reasons of soil conservation Nufarm Agriculture Inc. does **not** recommend the Fall application of RIVAL 10G to soils which are subject to erosion by wind, water or other factors. Fall application to summerfallow under certain conditions such as low trash cover or light textured soils may predispose the field to wind and/or water erosion and is **not** recommended.

Read all directions carefully before applying RIVAL 10G.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, RIVAL 10G is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to RIVAL 10G 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 RIVAL 10G or other Group 3 herbicides 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.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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 Nufarm Agriculture Inc. at 1-800-868-5444 or at www.nufarm.ca.

DIRECTIONS FOR USE IN ALL CROPS (INCLUDING WHEAT)

- Do not apply to soils which contain more than 15 per cent organic matter such as peat or muck soils (maximum 10 per cent organic matter on Barley).
- Do not apply to wet soils that are subject to excessive flooding.
- Do not apply to soils that are extremely lumpy, cloddy or in poor working condition.

- For maximum weed control and crop tolerance, follow label directions at all times. Read all directions before applying RIVAL 10G.

CAUTION

Application of RIVAL 10G to soils that are subject to flooding (standing water for more than 3-5 days) may result in reduced weed control. This reduction in weed control may occur if the soils are flooded between the time of RIVAL 10G application and crop maturity (harvest). If these soils are flooded for a considerable period of time (3 weeks or more) the result may be no weed control at all.

When used according to label directions, RIVAL 10G will not damage the treated crop. Emerging crop, weakened from factors such as deep planting, excessive moisture, cold temperatures, seedling disease, poor soil fertility, drought and saline soils may increase the risk of damage from RIVAL 10G resulting in a delay in crop maturity and/or reduced yields.

Highly sensitive crops such as Tame Oats, Sugarbeets and small seeded annual grasses (Timothy, Canary Seed Grass and Creeping Red Fescue) should not be grown in rotation in the year following RIVAL 10G application.

SPECIAL INSTRUCTIONS FOR CROP ROTATIONS

- The rate of breakdown of RIVAL 10G, in the soil, is influenced by environmental factors which occur during the year of control, and those of the following spring, i.e., May 1st-May 1st. If precipitation during this period is below normal, the level of carryover into the following growing season will be increased.
- Crop injury may result to rotational crops (e.g. Wheat) if grown in the second year of a crop rotation following dry soil conditions during the first crop year after RIVAL 10G application. To reduce injury to rotational crops, seed the crops shallowly into a warm, moist seedbed.

DIRECTIONS FOR USE IN OILSEED CROPS, SPECIAL CROPS AND BARLEY

(For Use on Summerfallow-Wheat Rotations and for Green Foxtail Control in Wheat, see "DIRECTIONS FOR USE IN WHEAT" Section)

SUSCEPTIBLE WEEDS

ANNUAL GRASSES:

Wild Oats, Green and Yellow Foxtail (Wild Millet), Barnyard Grass, Persian Darnel, Annual Bluegrass, Crabgrass, Stinkgrass, Bromegrass, Cheat and Goosegrass.

ANNUAL BROADLEAVED WEEDS:

Pigweed, Russian Thistle, Lamb's-quarters, Chickweed, Carpetweed, Knotweed, Purslane, Cow Cackle and Wild Buckwheat.

The above weeds will be controlled when RIVAL 10G is applied at recommended rates and used as directed. Ensure that all incorporation directions are followed. Some Wild Oats and Wild Buckwheat may escape the RIVAL 10G herbicidal action, however the crop competition will effectively suppress the escaped weeds so that little or no competition results with the crop. RIVAL 10G controls weeds as they germinate. This occurs as the soil warms and soil temperatures approach 6°C.

TIME OF APPLICATION

RIVAL 10G is applied before the crop is planted and before weed emergence. It is incorporated thoroughly into the soil to provide herbicidal action that will control all susceptible weeds. RIVAL 10G does not control susceptible weeds that have already emerged through the soil at the time of application. It only controls susceptible weeds as they germinate.

LAND PREPARATION

Before applying RIVAL 10G, ensure that all emerged and existing weeds have been eliminated through disking, cultivation or by chemical control. RIVAL 10G can be applied to stubble or trashy soils; however, heavy trash soils should be thoroughly disced prior to RIVAL 10G application in order to allow product penetration into the soil surface. Ensure that all large soil clods are broken before RIVAL 10G application.

If manure has been applied to the field, ensure that it is thoroughly mixed into the soil with at least two tillage operations prior to RIVAL 10G application.

If the field has been burned in order to remove previous crop residue (straw, trash, etc.), ensure that the field is tilled at least once prior to RIVAL 10G application.

NOTE: DO NOT PLOW (MOLDBOARD) LAND PRIOR TO RIVAL 10G APPLICATION.

METHOD OF APPLICATION

Apply RIVAL 10G uniformly to the soil surface using a properly calibrated granular applicator. Using the equipment guidelines provided in this label or by the equipment manufacturer adjust the applicator to provide the required rate of RIVAL 10G. These guidelines should only be used as starting points for equipment calibration and each applicator should be checked frequently to ensure that the correct rate of RIVAL 10G is being applied. Ensure that RIVAL 10G is applied uniformly to the entire soil surface and avoid concentration of granules in narrow bands, etc. Incorporate RIVAL 10G in the same direction as the application and within 24 hours of application. Ensure that all soil clods and lumps are broken during incorporation. Susceptible crops in rotation will not be damaged if RIVAL 10G is applied uniformly. Avoid over-application.

NOTE: DO NOT APPLY RIVAL 10G BY AIRCRAFT.

INCORPORATION

Incorporate with disc implements or cultivators only. Deep tillage cultivators are not recommended. A tandem disc is recommended for the first incorporation. Do not delay the first incorporation more than 24 hours after RIVAL 10G application. Both incorporations should be to the depth of 8-10 cm. The second incorporation must be at right angles to the first. Disc implements should be operated at 6-10 km/h and cultivators at 10-13 km/h.

NOTE:

- Incorporate RIVAL 10G to a depth of 8-10 cm only for maximum weed control and crop tolerance.

- Use a disc implement when incorporating RIVAL 10G on stubble or trashy soils.
- Cultivators should only be used for RIVAL 10G incorporation when soils are in good working condition.
- To allow greater release of RIVAL 10G and more effective weed control, delay the second incorporation for at least 5 days.

INSTRUCTIONS FOR SPRING APPLICATION

RIVAL 10G can be applied in the spring pre-plant incorporated for weed control during the crop year, however this application is recommended in Manitoba only. Apply spring rates and follow incorporation instructions. Ensure proper tillage for good seedbed preparation. Do not apply RIVAL 10G to Barley, Wheat, Flax or Lentils in the spring.

INSTRUCTIONS FOR SUMMER APPLICATION

For weed control in Flax, Rapeseed (Canola), Triazine Tolerant Rapeseed (Canola), Peas, Lentils, Mustard, Sunflowers and Fababeans the following year, apply RIVAL 10G to summerfallow between June 1 and September 1 using the summer rate and incorporate within 24 hours after application of RIVAL 10G. All subsequent incorporations may be done whenever resistant weed growth occurs for the remainder of the fallow season. Prior to planting the following spring, a shallow tillage once the soil has warmed is required. This is required for seedbed preparation and is best done with a Vibrashank cultivator or disc implement cutting to a depth of 5-8 cm. For summer application of RIVAL 10G to Lentils and Flax, refer to the Special Sections on these crops.

INSTRUCTIONS FOR FALL APPLICATION

For weed control in the following year, apply RIVAL 10G in the fall between September 1 and soil freeze-up, using Fall rates and following incorporation instructions. Do not delay initial incorporation more than 24 hours after application. The second incorporation may be done in the spring at the time of seedbed preparation and to the recommended depth. If both incorporations are done in the fall, a shallow tillage in the following spring and prior to seeding is required. This shallow tillage is best done with a Vibrashank cultivator or disc implement cutting to a depth of 5-8 cm. It is preferred if both incorporations are done in the fall. For application of RIVAL 10G to Barley, Lentils and Flax refer to the Special Sections on these crops respectively.

NOTE:

Following summer or fall application of RIVAL 10G and prior to seeding, ensure a spring tillage operation is completed to a depth of 5-8 cm with either a disc implement or a Vibrashank cultivator. This should be done when the soil is warm enough to promote germination. Ensure weed seedlings are destroyed and not transplanted during the operation. Seed into a weed-free and well-prepared seedbed.

RIVAL 10G GRANULES
ALL CROPS EXCEPT BARLEY, WHEAT, FLAX AND LENTILS

Recommended Rates (Product) in Kilograms/Hectare
Hectares per Bag

SEASON AND CROP	SOIL TEXTURE, SOIL ORGANIC MATTER (O.M.) AND SOIL ZONE				REMARKS
	LIGHT Sand, Sandy Loam		MEDIUM OR HEAVY Loam, Silt Loam, Silt, Sandy Clay Loam, Silty Clay Loam, Silty Clay, Clay		
	2-6% O.M. Brown, Dark Brown, Black & Grey Wooded Soil Zone	6-15% O.M. Dark Brown, Black, Deep Black Soil Zone	2-6% O.M. Brown, Dark Brown, Black & Grey Wooded Soil Zone	6-15% O.M. Black, Deep Black Soil Zone	
SPRING APPLICATION					
Rapeseed (Canola), Mustard, Sunflowers, Peas (Field & Processing), Triazine Tolerant Rapeseed (Canola), Faba beans RECOMMENDED IN MANITOBA ONLY	8.5 kg 2.7 ha/bag	11.0 kg 2.1 ha/bag	11.0 kg 2.1 ha/bag	11.0 – 14.0 kg 1.6 – 2.1 ha/bag Use the higher rate for heavy Wild Oat infestations.	RIVAL 10G may be applied and incorporated from 3 weeks before planting up to the time of planting. The first incorporation must be within 24 hours of application.
FALL APPLICATION					

Rapeseed (Canola), Triazine Tolerant Rapeseed (Canola), Peas (Field & Processing), Mustard, Sunflowers, Faba beans	11.0 kg 2.1 ha/bag	14.0 kg 1.6 ha/bag	14.0 kg 1.6 ha/bag	14.0 – 17.0 kg 1.3 – 1.6 ha/bag Use the higher rate for heavy Wild Oat infestations.	Apply RIVAL 10G between Sept. 1 and up to freeze up. The first incorporation must be within 24 hours of application.
SUMMER APPLICATION					
Rapeseed (Canola), Triazine Tolerant Rapeseed (Canola), Peas (Field & Processing), Mustard, Sunflowers, Faba beans	17.0 kg 1.3 ha/bag	17.0 kg 1.3 ha/bag	17.0 kg 1.3 ha/bag	17.0 kg 1.3 ha/bag	Apply RIVAL 10G between June 1 and Sept. 1. The first incorporation must be within 24 hours of application.

SPECIAL INSTRUCTIONS FOR FLAX (EXCEPT LOW LINOLENIC ACID VARIETIES) AND LENTILS

- Application of RIVAL 10G to Flax and Lentils may be made in summer or fall.
- Both incorporations should be done in the fall (summer) prior to seeding Flax or Lentils in the spring.
- To ensure a firm seedbed and maintain a constant depth of planting, a shallow tillage and a packed seedbed in spring are recommended.
- Seed with a drill to a depth of 2-4 cm into a moist and firm seedbed.
- Seed Flax and Lentils when soil temperatures are warm and greater than 6° C. This is usually after mid-May.
- Environmental factors that are referred to in the “DIRECTIONS FOR USE IN ALL CROPS” section may cause crop injury and reduced yields.

**RIVAL 10G GRANULES FOR LENTILS AND
 FLAX (EXCEPT LOW LINOLENIC ACID VARIETIES)**
 Fall and Summer Application Only
 Recommended Rates (Product) in Kilograms/Hectare
 Hectare per Bag

SEASON AND CROP	SOIL TEXTURE, SOIL ORGANIC MATTER (O.M.) AND SOIL ZONE				REMARKS
	LIGHT Sand, Sandy Loam		MEDIUM OR HEAVY Loam, Silt Loam, Silt, Sandy Clay Loam, Silty Clay Loam, Silty Clay, Clay Loam, Clay		
	2-6% O.M. Brown, Dark Brown, Black & Grey Wooded Soil Zone	6-15% O.M. Dark Brown, Black, Deep Black Soil Zone	2-6% O.M. Brown, Dark Brown, Black & Grey Wooded Soil Zone	6-15% O.M. Black, Deep Black Soil Zone	
FALL APPLICATION					
Lentils and Flax	11.0 kg 2.1 ha/bag	14.0 kg 1.6 ha/bag	11.0 kg 2.1 ha/bag	14.0 – 17.0 kg 1.3 – 1.6 ha/bag Use the higher rate for heavy Wild Oat infestations.	Apply RIVAL 10G between Sept. 1 and up to freeze up. The first incorporation must be within 24 hours of application.
SUMMER APPLICATION					
Lentils and Flax	17.0 kg 1.3 ha/bag	17.0 kg 1.3 ha/bag	17.0 kg 1.3 ha/bag	17.0 kg 1.3 ha/bag	Apply RIVAL 10G between June 1 and Sept. 1. The first incorporation must be within 24 hours of application.

SPECIAL INSTRUCTIONS FOR BARLEY

- Application of RIVAL 10G to Barley is recommended as a fall treatment only.
- Barley is a fast-emerging, fast-growing cereal that has great natural competitive ability once established. **DO NOT USE BARLEY RATES OF APPLICATION IN OTHER REGISTERED CROPS. SEE THE RATE OF APPLICATION SECTIONS FOR OILSEED AND SPECIAL CROPS AND FOR LENTILS AND FLAX WHEN USING RIVAL 10G ON THESE CROPS RESPECTIVELY.**
- Initial incorporation must be within 24 hours of RIVAL 10G application and to a depth of 8-10 cm.

The second incorporation should also be done in the fall at right angles to the first. For maximum effectiveness delay the second incorporation for 5 days.

- When using the lower rate of RIVAL 10G some Wild Oats and Wild Buckwheat may escape the herbicidal action. Lower areas of fields with high Wild Oat populations should be tilled prior to seeding the Barley in order to reduce the Wild Oat density.
- Use the higher rate of RIVAL 10G on all soils with 6-10 per cent organic matter except sand and sandy loam.
- Do not apply RIVAL 10G for Barley on land treated with RIVAL, Treflan, Heritage or Triflurex since June 1 of the previous year.
- Do not apply to soils containing less than 2 per cent organic matter.
- Seeding should be done with drills and into moist, warm seedbed. Do not seed when soil conditions are cold. If seeding with a discer or air seeder avoid variable seeding depth and ensure a firm seedbed by packing after seeding.
- Do not seed early when soil conditions are cold.
- Some early season effects may be noticed on the Barley, however these effects are only temporary and the crop will recover to full yield potential.
- Application to severely eroded knolls may result in reduced crop stand.
- Application to fields with wide variances in soil organic matter or soil texture can result in reduced crop tolerance and variable weed control.
- See the following chart for correct application of RIVAL 10G on Barley.

RIVAL 10G GRANULES FOR BARLEY
 Fall Application Only
 Recommended Rates (Product) in Kilograms/Hectare
 Hectare per Bag

SEASON AND CROP	SOIL TEXTURE, SOIL ORGANIC MATTER (O.M.) AND SOIL ZONE				REMARKS
	LIGHT		MEDIUM OR HEAVY		
	All soils with 2 to 4% O.M.	All soil textures with 4 to 6% O.M.	Sand and Sandy Loam with 6 to 10% O.M.	Loam, Silt Loam, Silt, Silty Clay Loam, Sandy Clay Loam, Silty Clay, & Clay with 6 to 10% O.M.	

	Brown, Dark Brown, Black & Grey Wooded Soil Zone	Brown, Dark Brown, Black & Grey Wooded Soil Zone	Brown, Dark Brown, Black Soil Zone	Black & Deep Black Soil Zone	
FALL APPLICATION					
Barley	8.5 kg 2.7 ha/bag	11.0 kg 2.1 ha/bag	11.0 kg 2.1 ha/bag	14.0 kg 1.6 ha/bag	Apply RIVAL 10G between Sept. 1 and freeze up. Incorporate within 24 hours of application.

RIVAL 10G GRANULES FOR WHEAT

DIRECTIONS FOR USE IN WHEAT

RIVAL 10G USE ON SUMMERFALLOW FOLLOWED BY WHEAT IN ROTATION.

RIVAL 10G can be mixed (incorporated) into the soil during the summerfallow year to control several weeds during both years of the summerfallow-Wheat rotation. RIVAL 10G will only control susceptible weeds as they germinate and will not control established weeds.

REGISTERED CROPS

All Spring Wheat varieties including Semi-Dwarf, Hard Red Spring and Durum Wheat.

WEEDS CONTROLLED

SUMMERFALLOW YEAR		CROP YEAR
Wild Oats	Lamb's-quarters	Green & Yellow Foxtail (Wild Millet)
Green & Yellow Foxtail (Wild Millet)	Russian Thistle	Lamb's-quarters
Barnyard Grass	Red Root Pigweed	Wild Oats*
Persian Darnel	Cow Cockle	Wild Buckwheat*
	Wild Buckwheat	

*Some Wild Oats and Wild Buckwheat may escape the RIVAL 10G herbicidal action during the crop year depending on weed population as well as soil climatic conditions, however the crop competition will usually effectively suppress the escaped weeds so that little or no competition results with the crop.

NOTE:

The above weeds will be controlled when RIVAL 10G is applied at recommended rates and used as directed. Ensure that all incorporation directions are followed. During the fallow year, susceptible weeds will not be fully controlled until after the second incorporation when there has been a uniform layer of soil treated with RIVAL 10G established.

TIME OF APPLICATION

RIVAL 10G can be applied to the summerfallow between May 1st and July 31st. Early application is recommended so that the greatest benefits of weed control during the fallow year can be achieved. If possible, apply RIVAL 10G just prior to the first summerfallow operation.

LAND PREPARATION

RIVAL 10G can be applied to stubble or trashy soils as well as pre-worked stubble. Very heavy trash soils should be pre-worked prior to RIVAL 10G application in order to allow product penetration onto the soil surface. If green growth is heavy, destroy this growth before application of RIVAL 10G. This growth can be removed either by cultivation or by chemical control methods.

METHOD OF APPLICATION

Apply RIVAL 10G uniformly to the soil surface using a properly calibrated granular applicator. Incorporate RIVAL 10G in the same direction as application and within 24 hours of application. Avoid over-application.

DO NOT APPLY RIVAL 10G BY AIRCRAFT.

INCORPORATION

Incorporate with cultivators or disc implements only. Deep tillage cultivators do not provide the best mixing action, however may be needed for the first fallow operation (incorporation) if trash conditions warrant it. Do not delay the first incorporation more than 24 hours after RIVAL 10G application. Incorporate RIVAL 10G at a working speed of 8-13 km/hr. The second incorporation must not be done any sooner than 5 days after the first incorporation and can be delayed until new weed regrowth requires a cultivation or disking. The second incorporation must be at right angles to the first. Both incorporations must be to a depth of 5-8 cm. Subsequent workings must be no deeper than 8 cm.

After the two incorporations, additional shallow tillage may be required to control resistant weed growth and provide more uniform mixing of RIVAL 10G into the soil especially if a deep tillage cultivator was used for the first incorporations.

Do not apply and incorporate RIVAL 10G when the soil is in poor working condition (wet, lumpy, or cloddy).

RATE OF APPLICATION

RECOMMENDED RATES IN KILOGRAMS PER HECTARE SUMMERFALLOW APPLICATION

DATE OF APPLICATION	ORGANIC MATTER	
	1-3 per cent O.M.	4-8 per cent O.M
	KG/HA	KG/HA
May	9.5	11.0

June	8.0	9.5
July	6.5	8.0

NOTE: DO NOT APPLY RIVAL 10G FOR SUMMERFALLOW-WHEAT ROTATIONS WHERE SOIL ORGANIC MATTER IS LESS THAN 1 per cent OR GREATER THAN 8 per cent.

SEEDBED PREPARATION

Ensure there is a well-prepared seedbed by providing a spring tillage operation using either a disc implement or field cultivator. (This operation may not be necessary if seeding with an air-seeder or discer.) Seed into a moist, warm and firm seedbed in order to promote quick germination. Ensure weed seedlings are destroyed and not transplanted during the spring operations. Seeding implements must be set to place the Wheat at a 3-6 cm depth. SHALLOW SEEDING IS ESPECIALLY IMPORTANT FOR SEMI-DWARF WHEAT VARIETIES.

The seedbed should be firmly packed or harrowed after seeding to promote good germination.

NOTE:

TO AVOID WHEAT INJURY, USE GOOD QUALITY SEED AND FOLLOW SEEDING PRACTICES WHICH PROMOTE GOOD GROWING CONDITIONS. AVOID DEEP SEEDING, LOOSE SEEDBEDS, AND SEEDING INTO COLD SOILS.

CAUTION

When applying RIVAL 10G for weed control in Wheat, drought conditions during the fallow year after RIVAL 10G application may result in higher than normal carry-over of RIVAL 10G into the crop year. To reduce the possibility of Wheat damage under these circumstances, seed the Wheat at a higher seeding rate, seed shallow, and seed into a moist warm, and well-prepared seedbed.

RIVAL 10G USE FOR FALL APPLICATION FOR CONTROL OF GREEN AND YELLOW FOXTAIL (WILD MILLET) IN WHEAT

RIVAL 10G can be applied and mixed (incorporated) into the soil on summerfallow or stubble land between September 1st and freeze-up in order to control Green and Yellow Foxtail (Wild Millet) during the following crop year in Wheat. RIVAL 10G will only control Foxtail as it germinates and will not control established Foxtail plants.

REGISTERED CROPS

All Spring Wheat varieties including Semi-Dwarf, Hard Red Spring and Durum Wheat.

WEEDS CONTROLLED

Green and Yellow Foxtail (Wild Millet).

TIME OF APPLICATION

RIVAL 10G can be applied in the Fall between September 1 and soil freeze-up for Foxtail control the following year.

LAND PREPARATION

RIVAL 10G can be applied to summerfallow or to stubble. The stubble may be standing or pre-worked, however very heavy trash soils should be pre-worked prior to RIVAL 10G application in order to allow product penetration onto the soil surface. If green growth is heavy, destroy this growth before application of RIVAL 10G. This growth can be removed either by cultivation or by chemical control methods. If the stubble has been burned, cultivate prior to RIVAL 10G application.

METHOD OF APPLICATION

Apply RIVAL 10G uniformly to the soil surface using a properly calibrated granular applicator. Incorporate RIVAL 10G in the same direction as application and within 24 hours of application. Avoid over application.

DO NOT APPLY RIVAL 10G BY AIRCRAFT.

NOTE:

DO NOT APPLY RIVAL 10G IN THE FALL (FOR FOXTAIL CONTROL THE FOLLOWING YEAR IN WHEAT) ON LAND THAT WAS TREATED WITH RIVAL, Treflan, Heritage, OR Triflurex IN EITHER THE CURRENT YEAR OR THE PREVIOUS CROP YEAR.

INCORPORATION

Incorporate with cultivators or disc implements only. Deep tillage cultivators do not provide the best mixing action however may be needed for the first incorporation if trash conditions warrant it. Do not delay the first incorporation more than 24 hours after RIVAL 10G application. Incorporate RIVAL 10G at a working speed of 8-13 km/hr. The second incorporation must be delayed at least 5 days after the first and must be done at right angles to the first incorporation. The second incorporation may be done in the fall or in the spring prior to seeding the Wheat crop. Both incorporations must be to a depth of 5-8 cm. Subsequent workings must be no deeper than 8 cm.

Do not apply and incorporate RIVAL 10G when the soil is in poor working condition (wet, lumpy, or cloddy).

Do not incorporate with rodweeders, harrows, or hoe drills.

RATE OF APPLICATION

ALL SOILS WITH 2-8 per cent ORGANIC MATTER
FALL APPLICATION
SEPTEMBER 1 - FREEZE UP
5.5 KG/HECTARE

NOTE:

DO NOT APPLY RIVAL 10G IN THE FALL FOR FOXTAIL CONTROL IN WHEAT WHERE SOIL ORGANIC MATTER IS LESS THAN 2 per cent OR GREATER THAN 8 per cent.

SEEDBED PREPARATION

Ensure there is a well-prepared seedbed by providing a spring tillage operation using either a disc implement or field cultivator. (This operation may not be necessary in seeding with an air-seeder or

discer.) Seed into a moist, warm and firm seedbed in order to promote quick germination. Ensure weed seedlings are destroyed and not transplanted during the spring operations. Seeding implements must be set to place the Wheat seed at a 3-6 cm depth. **SHALLOW SEEDING IS ESPECIALLY IMPORTANT FOR SEMI-DWARF WHEAT VARIETIES.** The seedbed should be firmly packed or harrowed after seeding to promote good germination.

NOTE:

TO AVOID WHEAT INJURY, USE GOOD QUALITY SEED AND FOLLOW SEEDING PRACTICES WHICH PROMOTE GOOD GROWING CONDITIONS - AVOID DEEP SEEDING, LOOSE SEEDBEDS, AND SEEDING INTO COLD SOILS.

CAUTION

APPLICATION OF RIVAL 10G TO SEVERELY ERODED HILLS FOR WEED CONTROL IN WHEAT MAY RESULT IN REDUCED CROP STAND. ALL PRECAUTIONS AND DIRECTIONS FOR USE UNDER GENERAL INFORMATION ON THE FIRST PART OF THIS LABEL APPLY TO THE USE OF RIVAL 10G IN WHEAT AS WELL AS OTHER CROPS.