

(Container)

Treflan* QR5

Granular Herbicide

GROUP	3	HERBICIDE
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For sale for use only in the Prairie Provinces

- For preplant soil incorporated weed control in many field crops
- For preemergence weed control in wheat (The Heritage¹ Wheat Production System)

AGRICULTURAL

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

GUARANTEE: trifluralin 5% w/w
Granular

REGISTRATION NO. 14545 PEST CONTROL PRODUCTS ACT

HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN
CAUTION: FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE
POTENTIAL SKIN SENSITIZER

NET CONTENTS: 725 kg

Gowan Company, L.L.C.
P.O. Box 5569
Yuma, AZ 85366-5569
United States
1-800-883-1844

¹Heritage is a registered trademark of A.E. McKenzie Co. Ltd.

PRECAUTIONS

POTENTIAL SKIN SENSITIZER

KEEP OUT OF REACH OF CHILDREN

HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN.

Avoid contact with skin, eyes or clothing. Avoid contamination of foodstuffs, feed and fish ponds.

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.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

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 judgment of the physician in response to reactions of the patient.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL HAZARDS

Direct contamination of any body of water with this product may kill fish. Do not contaminate any body of water by direct application, cleaning of equipment or disposal of wastes. 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.

STORAGE

Store in areas not exposed to high temperatures or prolonged, direct sunlight or moisture. Also, do not let product remain in the granular 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, make the empty container unsuitable for further use.

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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.

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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CONTROL OR CROP DAMAGE
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GENERAL INFORMATION

Treflan QR5 is a preemergence herbicide which is mixed (incorporated) into the soil to provide long-lasting control of many annual grasses and broadleaved weeds. Treflan QR5 controls susceptible weeds by killing seedlings as they germinate. It does not control established weeds or weeds which germinate below the treated soil layer.

GENERAL USE PRECAUTIONS

- **DO NOT APPLY BY AIR.**
- 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 Treflan QR5 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.
- 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.
- To avoid potential injury to future wheat rotational crops, growers should avoid applying trifluralin and/or ethalfluralin on the same land at an oilseed/special crop/barley rate for 2 consecutive crops.

Crop Year

Applied and incorporated according to directions, Treflan QR5 will not harm the treated crop. 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.

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.

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

Crop Rotation

Applied and incorporated according to label directions, Treflan QR5 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.

As a precaution, oats, sugarbeets and small-seeded grasses such as timothy, canaryseed grass and creeping red fescue should not be grown in rotation following a crop treated with Treflan QR5.

The persistence of Treflan QR5 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 Treflan QR5 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%).

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 2 consecutive crops.

Do not direct seed (zero till) a rotational crop into standing stubble on land that has been treated with trifluralin or ethalfluralin for the previous crop. A cultivation prior to seeding of the rotational crop is strongly recommended to help aerate the soil and promote seedbed conditions which will enhance seed germination.

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.

Tank Mixtures

Do not apply this product with any other additive, pesticide or fertilizer except as specifically recommended on this label.

DIRECTIONS FOR USE

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

- 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 heaving 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.

PREPLANT INCORPORATED WEED CONTROL IN MANY FIELD CROPS

Land Preparation

When applying to unworked stubble fields and to summerfallow, cultivate once before Treflan QR5 application to allow granules to penetrate to the soil surface. If existing weed growth is heavy (interfering with soil mixing), cultivate to destroy existing weeds or apply a recommended herbicide before Treflan QR5 application. Disc-type implements provide the best results. To avoid concentrating wild oat seeds below the treated layer do not plow (moldboard) land prior to Treflan QR5 application. If the swath is removed by burning, cultivate once to remove charcoal layer prior to Treflan QR5 application.

Application - Do not apply Treflan QR5 to peat or muck soils or soils with organic matter content of less than 2% or more than 15%.

Apply with a properly calibrated granular herbicide applicator that will apply the granules uniformly. Calibrate the applicator according to manufacturer's directions and check frequently during application to be sure equipment is working properly. Avoid concentration of the material in narrow bands. Apply Treflan QR5 to soil surface and incorporate in the same operation if possible. Ensure that large clods are broken. Do not delay incorporation more than 24 hours after application. When applied as directed, Treflan QR5 will not harm the treated crop or crops that follow in rotation; however, an over-application caused by overlapping, improper calibration, non-uniform application, etc. may reduce stands of the treated crop or rotational crops.

Incorporation

To incorporate, work Treflan QR5 into the soil in 2 different directions. Use a tandem disc, discer or field (vibra-shank type) cultivator set to work 8 to 10 cm deep (unless otherwise specified) for the first incorporation. Disc or cultivate in a cross direction at the same depth. Operate disc implements at 7 to 10 km/hr and cultivators at 10 to 13 km/hr. DEEP TILLAGE CULTIVATOR NOT RECOMMENDED. 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.

- Treflan QR5 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.
- 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 or hoe drills will not properly incorporate Treflan QR5.

NOTE: FOR MORE EFFECTIVE WEED CONTROL IT IS RECOMMENDED THAT THE SECOND INCORPORATION MUST BE DELAYED FOR AT LEAST 3 DAYS FOLLOWING THE FIRST INCORPORATION. THIS ALLOWS TIME FOR GREATER RELEASE OF TREFLAN QR5 ONTO SOIL PARTICLES AND ASSURES MORE UNIFORM DISTRIBUTION IN SOILS.

Fall Application

Treflan QR5 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 Treflan QR5 in the treated soil layer. Apply fall rates and incorporate as above. The initial incorporation must be done within 24 hours of application.

There are 2 options for fall application of fall-applied Treflan QR5:

1. Two incorporations may be completed in the fall provided that the second working is delayed at least 3 days after the first incorporation. The second incorporation should be performed in a cross direction to the first and at the same depth. Following 2 fall incorporations, the field will have to be shallowly tilled in the spring to prepare a good seedbed.

NOTE: Barley, flax (do not use on low linolenic acid varieties) and lentil crops need both incorporations performed in the fall.

2. To conserve trash cover throughout the winter 1 incorporation may be completed in the fall followed by the second incorporation in the spring at the time of seedbed preparation (see Spring Tillage For Seedbed Preparation).

Either option will result in satisfactory weed control provided that all label instructions on application, incorporation and spring tillage are followed.

Spring Application (Manitoba And Southern Alberta Only)

Spring application is recommended for Manitoba and Southern Alberta only. Follow general use directions for land preparation, application and incorporation. The second incorporation must be delayed for a minimum of 3 days following the first incorporation and can be completed any time before planting. For optimum weed control apply Treflan QR5 as soon as there are good soil working conditions early in the spring and complete the first incorporation within 24 hours.

Summer Application

Treflan QR5 can be applied to summerfallow between June 1 and September 1 for weed control in canola and flax (do not use on low linolenic acid varieties) the following year. Apply the summer rate and incorporate as above. Treflan QR5 must be incorporated at least twice with the implement operated in 2 different directions. The initial incorporation must be done within 24 hours of application. The second incorporation (and subsequent incorporations) may be done whenever necessary to destroy resistant weed growth during the remainder of the summerfallow. Tillage (5 to 8 cm) is necessary in the spring prior to seeding (refer to Spring Tillage For Seedbed Preparation). **DO NOT APPLY TO SAND AND SANDY LOAM SOILS.**

Spring Tillage For Seedbed Preparation

Spring tillage following summer or fall application of Treflan QR5 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 at 5 to 8 cm deep. On all deep black soils and heavy textured soils it is recommended to prework the soil early in the spring to aerate the Treflan QR5 treated layer for optimum weed control. Avoid transplanting weed seedlings. Seed into a weed-free seedbed using accepted cultural practices. Avoid excessive compaction of the Treflan QR5 treated soil layer. 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.

WEEDS CONTROLLED

Annual Grasses

wild oats
wild millet (green* and yellow foxtail)
barnyard grass
Persian dandelion
crab grass
brome grass
cheat
stink grass
goose grass
annual blue grass

Annual Broadleaves

wild buckwheat
cow cockle
pigweed
lamb's-quarters
chickweed
purslane
knotweed
carpetweed

*Treflan QR5 will not control trifluralin tolerant green foxtail. See specific recommendations in Resistance Management Recommendations section of this label.

NOTE: When used as directed, Treflan QR5 will provide commercially acceptable control of the above weeds. Some wild oats and wild buckwheat may escape the herbicidal action of Treflan QR5 but will be retarded in growth and will provide little competition to the crop.

CROPS REGISTERED

canola
triazine tolerant canola (t.t. canola)
mustard
sunflower
soybean
drybeans
fababeans
peas (field and canning)
lentils (fall application only)
barley (fall application only)
flax (summer and fall application only) (do not use on low linolenic acid varieties)
alfalfa establishment (flax and canola cover crops only)

TREFLAN QR5 USE FOR OILSEED AND SPECIAL CROPS

Recommended Rates of Treflan QR5 Per Hectare

Crop	Soil Zones and Soil Organic Matter	Rates Per Hectare For Specific Soil Textures		
		Light	Medium	to Heavy
		sand sandy loam	loam silt loam silt sandy clay loam	silty clay loam clay loam silty clay clay
SPRING canola t.t canola sunflowers drybeans mustard fababeans peas soybeans alfalfa establishment	brown dark brown 2-4% O.M. Manitoba S. Alberta	17 kg/ha	22 kg/ha	
	dark brown black 4-6% O.M. Manitoba only	22 kg/ha	22-28 kg/ha (use 28 kg/ha for heavy wild oat infestations in 6% O.M. soils only)	
SUMMER canola t.t. canola Flax (do not use on low linolenic acid varieties)	brown dark brown black	not recommended	34 kg/ha	
	deep black			
FALL canola t.t. canola lentils sunflower fababeans mustard Flax (do not use on low linolenic acid varieties), peas soybeans drybeans alfalfa establishment	brown dark brown or black 2-6% O.M.	22 kg/ha	28 kg/ha	
	black or deep black 6-15% O.M.	28 kg/ha	28-34 kg/ha (use 34 kg/ha for heavy wild oat infestations)	

NOTE: Do not delay first incorporation more than 24 hours after application.

SPECIAL INSTRUCTIONS FOR FLAX (do not use on low linolenic acid varieties) AND LENTILS

- Both incorporations of Treflan QR5 must be done in the season of application prior to seeding in the spring. Leave at least 3 days between incorporations.
- The seedbed should be shallowly tilled (5 to 8 cm) and packed just prior to seeding in the spring to ensure a firm seedbed and accurate depth of planting.
- Seeding should be done with a press drill or hoe drill. Seed into a moist seedbed no more than 4 cm deep.

4. Do not seed flax early in May when soil conditions are cold. Seeding should generally not be prior to May 15.
5. Refer to statement in General Use Precautions regarding stresses that can lead to crop injury or yield reduction.

TREFLAN QR5 PLUS A REGISTERED POSTEMERGENCE TRIAZINE HERBICIDE FOR TRIAZINE TOLERANT CANOLA

NOTE: THIS TREATMENT IS FOR USE ONLY ON TRIAZINE TOLERANT CANOLA. NON-TRIAZINE TOLERANT CANOLA WILL BE KILLED BY THIS COMBINATION.

Treflan QR5 may be applied in the summer, fall or spring for triazine tolerant canola. A postemergent triazine herbicide registered for this use may then be applied after crop emergence to control several additional broadleaved weeds. Refer to individual labels of the postemergence herbicides for specific recommendations and follow warnings and precautions as stated.

RECOMMENDED RATES OF TREFLAN QR5 PER HECTARE FOR BARLEY FALL APPLICATION BETWEEN SEPTEMBER 1 AND FREEZE-UP ONLY

Soil Zone and Soil Organic Matter	Rates Per Hectare for Specific Soil Textures	
	Light	Medium to Heavy (most soils)
	sand sandy loam	loam silt loam silt sandy clay loam silty clay loam clay loam silty clay clay
brown and dark brown 2-4% O.M.	17 kg/ha	22 kg/ha
black 4-6% O.M.	22 kg/ha	28 kg/ha

SPECIAL INSTRUCTIONS FOR USE IN BARLEY (FALL APPLICATION ONLY)

User instructions must be followed closely to ensure good crop tolerance.

Rates

Be sure to use the rates recommended for barley outlined in the table above. For list of weeds that are controlled in barley refer to the Weeds Controlled section of this label. For barley do not apply Treflan QR5 on grey-wooded soils, other soils containing less than 2% organic matter or on black/deep black soils containing more than 6% organic matter. Application to eroded knolls may result in reduced crop stand.

Incorporation

General instructions for Incorporation and Fall Application are the same for barley as outlined in the Directions For Use section of this label. **HOWEVER, ON BARLEY BOTH INCORPORATIONS MUST BE DONE IN THE FALL.** Refer also to the Land Preparation and Application sections of this label.

Seeding

Seeding should be done with a press drill or hoe drill. Seed into a moist, warm seedbed with the drill set to seed shallow (approximately 5 cm deep). Use of discers and air seeders can result in uneven emergence of the barley due to the loose seedbed and variable seeding depth. If a discer or air seeder is used, the field should be packed or harrowed after seeding to promote quick and even germination. Do not seed early when soils are cold.

PRECAUTIONS FOR USE IN BARLEY

Do not apply Treflan QR5 on stubble in the fall for barley when the crop harvested in the current calendar year was treated with Treflan or a product containing trifluralin. This includes applications made in the previous summer or fall.

Refer to the statement in General Use Precautions regarding stresses that can lead to crop injury or yield reductions. Apart from these conditions, any early season effects on crop development that may be noted are temporary and the crop will develop to full yield potential.

THE HERITAGE¹ WHEAT PRODUCTION SYSTEM

For preemergence weed control in wheat production systems Treflan QR5 may be applied in summerfallow for weed control in the summerfallow year and crop year. Alternatively, it may be applied in the fall to stubble or summerfallow for wild millet (green foxtail) in the crop year or in the spring to stubble or summerfallow for control of wild millet (green foxtail) in the current wheat crop. DO NOT APPLY TO SOILS WITH LESS THAN 1% ORGANIC MATTER FOR PREEMERGENCE WEED CONTROL IN WHEAT.

DIRECTIONS FOR USE ON SUMMERFALLOW

Treflan QR5 is a preemergence herbicide which is blended (mixed) into the soil to provide control of several annual grasses and annual broadleaved weeds during both years of the summerfallow-wheat rotation. TREFLAN QR5 CONTROLS SUSCEPTIBLE WEEDS BY KILLING SEEDLINGS AS THEY GERMINATE. It will not control established weeds.

CROPS REGISTERED

spring wheat (includes semi-dwarf)
durum wheat

WEEDS CONTROLLED**Fallow Year**

wild millet (green foxtail*)
wild oats
Persian darnel
barnyard grass
wild buckwheat
cow cockle
lamb's-quarters
redroot pigweed
Russian thistle

Crop Year

wild millet (green foxtail*)
lamb's-quarters
wild oats▼
wild buckwheat†

*Treflan QR5 will not control trifluralin tolerant green foxtail. See specific recommendations in the Resistance Management Recommendations section of this label.

▼Control of wild oats in the crop year may be variable depending on wild oat population as well as soil and climatic conditions.

†Some wild buckwheat may escape the herbicidal action of Treflan QR5 but its growth will be retarded and result in limited competition to the wheat.

NOTE: During the fallow year, susceptible weeds may not be fully controlled until after the second Fallowblend* operation has established a uniform layer of soil treated with Treflan QR5. During the crop year, Treflan QR5 will provide commercially acceptable control of weeds as specified above.

TREFLAN QR5 SUMMERFALLOW APPLICATION

Recommended Rates (kg Per Hectare)

Brown Soil Zone

Date of Application	% Organic Matter	
	1-3% O.M.	4-8% O.M.
May	19 kg	22 kg
June	16 kg	19 kg
July	13 kg	16 kg

Land Preparation

By reducing the number of fallow workings in a season, a greater trash cover is retained which reduces wind erosion and evaporation. The greatest reduction in the number of necessary fallow cultivations in a season may be obtained by applying Treflan QR5 just prior to the first spring fallow working.

Treflan QR5 may be applied to standing or preworked stubble, provided trash is not so heavy as to prevent soil mixing. Treflan QR5 may be applied over top of moderate green growth (not affecting soil mixing). If green growth is heavy (interfering with soil mixing), destroy existing growth before application of Treflan QR5 either by cultivation or with the application of a recommended herbicide.

Application

Application of Treflan QR5 to summerfallow fields will provide weed control during both years of the summerfallow-wheat rotation. Apply with a properly calibrated granular herbicide applicator that will apply Treflan QR5 uniformly.

Calibrate the applicator according to manufacturer's directions and check frequently during application to ensure equipment is working properly. Avoid concentration of the material in narrow bands or strips. Apply Treflan QR5 to soil surface and Fallowblend in the same operation if possible (see below for Fallowblend details). Ensure that large clods are broken. When applied as directed, Treflan QR5 will not injure wheat grown in rotation after summerfallow; however, an over-application caused by overlapping, improper calibration or non-uniform application may result in reduced crop stand, delayed development or reduced yields.

The Fallowblend Operations

To Fallowblend, mix Treflan QR5 into the soil in two different directions using a field cultivator, deep tillage cultivator or a disc implement operated at 8 to 10 km/hr. The first Fallowblend operation must be done within 24 hours of application and the second working should be done no sooner than one week after application. Subsequent workings may be done whenever necessary to destroy resistant weed growth during the remainder of the fallow year. For the first two Fallowblend operations the equipment should be set to work 5 to 8 cm deep. Subsequent workings should be no deeper than 8 cm.

After completing the two Fallowblend operations, additional operations with a rod weeder or shallow tillage may be required to control resistant weed growth and more uniformly blend Treflan QR5 into the soil. These additional cultivations should be as shallow as possible to minimize surface trash burial and evaporation.

Treflan QR5 should not be blended with a cultivator when the soil is crusted, lumpy or too wet for good mixing action.

Blending with implements set to cut deeper than 8 cm may result in erratic weed control and crop injury.

Spring Tillage For Seedbed Preparation

Seedbed preparation should be done using a field cultivator set to cut 5 cm deep (no deeper than the Fallowblend operation) when the soil is warm enough to promote good germination. Avoid transplanting weed seedlings; seed into a weed-free seedbed using a double disc drill or hoe drill set to seed 3 to 6 cm deep.

If a discer or air seeder is used for seeding, separate spring tillage may not be necessary. The discer or air seeder should be set to place seed 3 to 6 cm deep and the seedbed should be firmly packed or harrowed after seeding to promote good germination.

Seeding

To reduce the risk of wheat injury, use quality seed and agronomic practices which will promote good growing conditions - avoid deep seeding, loose seedbeds and seeding into cold soils.

When seeding semi-dwarf wheat, special care should be taken to ensure shallow seeding. Check local recommendations for proper seeding depth.

DIRECTIONS FOR FALL APPLICATION TO STUBBLE OR SUMMERFALLOW FOR CONTROL OF WILD MILLET (GREEN FOXTAIL) IN WHEAT

CROPS REGISTERED

spring wheat (includes semi-dwarf)
durum wheat

WEED CONTROL IN CROP YEAR

wild millet (green foxtail*)

During the crop year, Treflan QR5 will provide commercially acceptable control of wild millet (green foxtail).

*Treflan QR5 will not control trifluralin tolerant green foxtail. See specific recommendations in Resistance Management Recommendations section of this label.

RECOMMENDED RATES OF TREFLAN QR5 PER HECTARE (FALL APPLICATION)

Date of Application	% Organic Matter	Rate/ha
September 1 to freeze-up	2-8% O.M.	11 kg/ha

WARNING:

- Application to severely eroded knolls may result in reduced crop stand.
- 11 kg/ha is the maximum rate for wheat. Do not use higher rates for wheat as crop injury may result.

CAUTION: Do not apply Treflan QR5 on stubble in the fall for wheat when the crop harvested in the current calendar year was treated with either: Advance 10G, Treflan, Heritage (or other trifluralin products) or Edge (ethalfluralin). This includes applications made in the previous year.

Land Preparation

Treflan QR5 may be fall applied to summerfallow and to standing or preworked stubble, provided trash is not so heavy as to prevent soil mixing due to plugging of the implement. Treflan QR5 may be applied over top of moderate green growth (not affecting soil mixing). If green growth is heavy (interfering with soil

mixing), destroy existing growth before application of Treflan QR5 either by cultivation or with the application of a recommended herbicide. If the swath is removed by burning, cultivate once to remove charcoal layer prior to Treflan QR5 application.

Application

Treflan QR5 can be applied in the fall between September 1 and prior to soil freeze-up for wild millet control the following year. Apply with a properly calibrated granular herbicide applicator that will apply the granules uniformly. Calibrate the applicator according to manufacturer's directions and check frequently during application to ensure the equipment is working properly. Avoid concentration of the material in narrow bands or strips. Apply Treflan QR5 to the soil surface and incorporate in the same operation if possible. Ensure that large clods are broken. Do not delay incorporation more than 24 hours after application. When applied as directed, Treflan QR5 will not harm crops that follow in rotation; however, an over-application caused by overlapping, improper calibration, non-uniform application etc. may reduce stands of crops that follow in rotation.

Incorporation

To incorporate, blend Treflan QR5 into the soil in two different directions using a field cultivator, deep tillage cultivator or disc implement operated at 8 to 10 km/hr and set to work 5 to 8 cm deep. The second working should be done in a cross direction at the same depth.

There are two options for fall application of fall-applied Treflan QR5:

1. Two incorporations may be completed in the fall provided that the second working is delayed at least 3 days after the first working. This allows time for greater release of Treflan QR5 onto the soil particles and assures more uniform distribution in the soil. The second blending should be performed in a cross direction to the first and at the same depth. Following two fall incorporations, the field will have to be shallowly tilled in the spring to prepare a good seedbed.
2. To conserve trash cover throughout the winter, one incorporation may be completed in the fall followed by the second incorporation in the spring at the time of seedbed preparation (see Spring Tillage For Seedbed Preparation recommendations).

Either option will result in satisfactory weed control provided that all label instructions on application, incorporation and spring tillage are followed.

Treflan QR5 should not be incorporated with a field cultivator when the soil is crusted, lumpy or too wet for good mixing action.

Incorporation with implements set to cut less than 5 cm deep or more than 8 cm deep may result in erratic weed control or crop damage.

Rod weeders, harrows or hoe drills will not properly incorporate Treflan QR5.

Spring Tillage For Seedbed Preparation

All spring tillage following fall application of Treflan QR5 should be done when the soil is warm enough to promote germination.

When only one blending is completed in the fall to conserve trash cover, the spring tillage should be done at an angle or cross direction to the fall blending with the implement operated at a 5 to 8 cm depth.

When both blendings are completed in the fall, shallow spring tillage (no deeper than fall blending) should be completed with a cultivator or disc implement.

Avoid transplanting weed seedlings.

Seeding

Seed into a firm, moist, weed-free seedbed using a double disc press drill or hoe drill set to seed 3 to 6 cm deep.

If a discer or air seeder is used for seeding, separate spring tillage may not be necessary. However, care must be exercised such that the discer or air seeder is set to uniformly place the seed 3 to 6 cm deep and the seedbed should be firmly packed or harrowed after seeding to promote good germination.

To reduce the risk of **wheat** injury, use quality seed and agronomic practices which will promote good growing conditions - avoid deep seeding, loose seedbeds and seeding into cold soils.

When seeding **semi-dwarf wheat**, special care should be taken to ensure shallow seeding. Check local recommendations for proper seeding depth.

DIRECTIONS FOR SPRING APPLICATION TO STUBBLE OR SUMMERFALLOW FOR CONTROL OF WILD MILLET (GREEN FOXTAIL) IN WHEAT**CROPS REGISTERED**

spring wheat (includes semi-dwarf)
durum wheat

WEED CONTROL IN CROP YEAR

wild millet (green foxtail^{*})

Apply Treflan QR5 in the spring as a preplant incorporated treatment for the control of wild millet (green foxtail) in the current wheat crop.

^{*}Treflan QR5 will not control trifluralin tolerant green foxtail. See specific recommendations in Resistance Management Recommendations section of this label.

RECOMMENDED RATES OF TREFLAN QR5 PER HECTARE (SPRING APPLICATION)

Date of Application	% Organic Matter	Rate/ha
Spring (April to May only)	2-6% O.M.	11 kg/ha

CAUTION: Do not apply Treflan QR5 on stubble in the spring for wheat when the crop harvested the previous year was treated with either Advance 10G, Treflan, Heritage (or other trifluralin products) or Edge (ethalfluralin). This includes applications made in the previous year.

Land Preparation

Treflan QR5 may be spring applied to summerfallow and to standing or preworked stubble, provided trash is not so heavy as to prevent soil mixing due to plugging of the implement. Treflan QR5 may be applied over top of moderate green growth (not affecting soil mixing). If green growth is heavy (interfering with soil mixing), destroy existing growth before application of Treflan QR5 either by cultivation or with the application of a recommended herbicide. If the swath is removed by burning, cultivate once to remove charcoal layer prior to Treflan QR5 application.

Application

Treflan QR5 can be applied in the spring between April 15 to the end of May for wild millet control in the current wheat crop. Apply with a properly calibrated granular herbicide applicator that will apply the granules uniformly. Calibrate the applicator according to manufacturer's directions and check frequently

during application to ensure the equipment is working properly. Avoid concentration of the material in narrow bands or strips. Apply Treflan QR5 to the soil surface and incorporate in the same operation if possible. Ensure that large clods are broken. Do not delay first incorporation more than 24 hours after application.

Incorporation

Incorporate Treflan QR5 into the soil in two different directions using a field cultivator, deep tillage cultivator or disc implement operated at 8 to 10 km/hr and set to work 5 to 8 cm deep. The first incorporation should occur within 24 hours after application. Incorporate a second time before planting to destroy existing weed growth and ensure uniform distribution of Treflan QR5 in treated soil. **The second incorporation must be delayed for a minimum of 3 days following the first incorporation** and can be completed any time prior to planting. To avoid bringing untreated soil to the surface the second incorporation should not be deeper than the first.

NOTE: When Treflan QR5 is applied in April to cold soils, allow at least 14 days between first and second incorporation. This delay will promote soil warming prior to seeding.

Seedbed Preparation

Seed into a firm, moist, weed-free seedbed using a double disc press drill or hoe drill set to 3 to 6 cm deep.

If a discer or air seeder is used for seeding, this seeding operation can replace the second incorporation. However, care must be exercised such that the discer or air seeder is set to uniformly place the seed 3 to 6 cm deep and the seedbed should be firmly packed or harrowed after seeding to promote good seed germination.

Seeding into cold soils may slow wheat emergence and result in increased risk of crop injury. **Allow soil to warm before seeding.** Follow good agronomic practices to promote rapid, uniform crop emergence. **Use quality seed. Avoid deep seeding and loose seedbeds.** When seeding semi-dwarf wheat, special care should be taken to ensure shallow seeding. Check local recommendations for proper seeding depth.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Treflan QR5 is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to Treflan QR5 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 Treflan QR5 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 Gowan Company L.L.C. 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. The user assumes the risk to persons or property that arises from any such use of this product.

*Fallowblend is a registered trademark of Dow AgroSciences LLC.

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