

94.05.18

IPCO (R1)

TREFLAN (R2) E.C.

8.3 LITRES

A SELECTIVE LIQUID HERBICIDE FOR-PLANT
SOIL INCORPORATED WEED CONTROL IN MANY
FIELD CROPS VEGETABLES AND ORNAMENTAL

PRAIRIE PROVINCES

AGRICULTURAL

READ THE LABEL AND BOOKLET BEFORE USING

GUARANTEE: Trifluralin 545 g/L

REGISTRATION NO. 17132
PEST CONTROL PRODUCTS ACT

KEEP OUT OF REACH OF CHILDREN

DISTRIBUTED BY:

INTERPROVINCIAL COOPERATIVE LIMITED
P.O. BOX 1050 SASKATOON SASKATCHEWAN S7K 3M9
(204) 233-3461

(R1) T.M. Interprovincial Cooperative Limited

(R2) T.M. DowElanco

Interprovincial Cooperative Limited is a licensed user

NOTICE TO USER

This control product is to be used only in accordance with the directions on this label. It is an offense under the Pest Control Products Act to use a control product under unsafe conditions.

NOTICE TO BUYER

Seller's guaranty shall be limited to the terms set out on the label and

subject hereto; the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

GENERAL INFORMATION

INSTRUCTIONS:

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

WARNINGS:

APPLICATION

Do not apply Treflan E.C. to peat or muck soil, or soils which contain more than 15% organic matter.

Do not apply to fields spread with manure within the last 12 months. After this period, ensure the manure has been thoroughly disintegrated and mixed into the soil to a depth of 10-15 cm.

If the swath or stubble is removed by burning, cultivate once to remove the charcoal layer from the soil surface prior to Treflan E.C. application.

Application to soils subject to prolonged periods of flooding may result in accelerated herbicide breakdown. Additionally, application to wet soils or soils in poor working condition could result in reduced weed control. See land preparation section of this label for further precautions.

Do not apply to soils with less than 2% organic matter. Application to eroded knolls or grey-wooded soils with highly variable texture or organic matter may result in reduced crop stand, delayed development or reduced yields in either the treated crop or rotational crop.

Apply uniformly at the recommended rates. Over-application caused by overlapping improper calibration, or uneven application, may reduce crop stands in the treated crop or rotational crop.

DO NOT APPLY BY AIR.

To avoid potential injury to future wheat rotational crops, growers should avoid applying trifluralin and/or ethalfluralin on the same land

at an oilseed/special crop/barley rate for two consecutive crops.

CROP YEAR

Applied and incorporated according to directions Treflan E.C. will not harm the treated or rotational 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.

Every crop will have 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 extensions 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.

ROTATIONAL CROP

Applied and incorporated according to label directions.. Treflan E.C will not harm rotational crops. However, seedling disease, cold weather, deep planting, excessive, moisture, high salt concentrations, soil compaction or drought may weaken seedings 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 E.C.

The persistence of Treflan E.C. 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 E.C. may be present in the soil. To reduce the possibility of injury to rotational crops, seed shallow into a warm moist seedbed using a 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 two 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.

WEED RESISTANCE

Populations of green foxtail tolerant to trifluralin have developed in a number of fields in Western Canada which have had a long history of repeated trifluralin use. Trifluralin or ethalfluralin containing products (i.e. ADVANCE (R2) 10G, TREFLAN E.C. (R2), HERITAGE (R3), TRIFLUREX (R7), RIVAL (R8), FORTRESS (R6), and EDGE (R2)) will not control trifluralin tolerant green foxtail. To delay selection or reduce the spread of trifluralin tolerant green foxtail, avoid use of these products repeatedly in the same field, or use a separate herbicide application for control of trifluralin tolerant green foxtail.

As a preventative measure, it is recommended that one rotate the use of herbicides that have different modes of action. Consult provincial extension personnel for more information.

RINSE, DRAIN AND DISPOSAL PROCEDURE

NON-RETURNABLE CONTAINERS

1. Rinse the emptied container thoroughly and add rinsings to the spray mixture in the tank.
2. Follow Provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Do not reuse container.
4. Make the empty container unsuitable for further use and dispose in

accordance with Provincial requirements.

5. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the regional office Conservation and Protection, Environment Canada.

STORAGE

DO NOT FREEZE

Store TREFLAN E.C. in heated storage. Active ingredient crystallization may occur at temperature below 5 deg. C. If stored below 5 deg. C, check for crystals in the bottom of each container. If crystals are present, place the container in a warm area (at least 15 deg. C for several hours. For smaller containers, agitate contents by inverting several times and return it to the upright position. For larger containers circulate contents. After several hours, if any crystals remain, agitate or circulate container contents again.

ENSURE ANY CRYSTALS ARE DISSOLVED BEFORE ADDING TO SPRAY TANK

PRECAUTION

KEEP OUT OF REACH OF CHILDREN

HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN.

Avoid contact with skin, eyes or clothing. Do not store near heat or flame. Avoid contamination of foodstuffs, feeds and fish ponds.

FIRST AID

In case of contact, flush with water. Contact physician if swallowed. If swallowed, induce vomiting followed by at least 300 mL of water to children and 700mL to adults. Make certain vomitus is not inhaled. After vomiting occurs give 30-40 mL of activated charcoal in 100 mL of water.

ENVIRONMENTAL HAZARD

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.

DIRECTIONS FOR USE

TREFLAN E.C. is a pre-emergent herbicide which is mixed (incorporated) into the soil to provide long-lasting control of many annual grasses and broadleaf weeds. TREFLAN E.C. controls susceptible weeds by killing seedlings as they germinate. It does not control established weeds.

GENERAL INFORMATION FOR
OILSEED AND SPECIAL CROPS
CROPS REGISTERED

Canola
Triazine Tolerant Canola
Mustard
Flax (summer and fall
application only)
Dry Common Beans
(White or Kidney)
Black Beans
Soybeans
Faba Beans
(Horsebeans)
Peas (Field and
Canning)
Lintils (fall only)
Asparagus-established
3 years
Transplanted Shelter belts
Sunflowers

Alfalfa Establishment
(Flax and Canola
cover crops only)
Safflower
Crambe
Sainfoin
Sweet Clover
(Spring only)
Vegetables (see special
instructions)
Strawberries (spring
application only)
Saskatoon berries
Farage Legumes
- seedling alsike clover
- red clover
- cicer milkvetch
- bird's foot trefoil

WEEDS CONTROLLED

ANNUAL GRASSES

Wild Oats
Wild Millet (Green* and
Yellow Foxtail)
Barnyard Grass
Crab Grass
Brome Grass
Cheat
Stink Grass
Goose Grass
Annual Blue Grass
Persian Darnel

ANNUAL BROADLEAVES

Wild Buckwheat
Cow Cockle
Pigweed
Lamb's quarters
Chickweed
Purslane
Knotweed
Carpet weed

* TREFLAN E.C.9 will not control trifluralin tolerant Green Foxtail. See specific recommendations in WARNING section of the label.

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

LAND PREPARATION

Cultivate to destroy existing weeds and ensure that large clods are broken before TREFLAN E.C. application. When applying to stubble fields, chop and thoroughly mix crop residues into soil to a depth of 10 cm. Disc type implements provide the best results. Swath windrows should be evenly spread before cultivation to avoid strips of concentrated trash cover. TREFLAN E.C. should not be sprayed on a soil surface with more than 25% trash cover. To avoid concentrating wild oat seeds below the treated layer, do not plow (moldboard) land prior to TREFLAN E.C. application. If a swath has been removed by burning, cultivate once to remove the charcoal layer prior to application of TREFLAN E.C.

APPLICATION

Add the recommended amount of TREFLAN E.C. to clean water in the spray tank during the filling operation and agitate thoroughly. Apply with at least 100 L of water per hectare (broadcast basis) using any properly calibrated low-pressure herbicide sprayer that will apply the spray uniformly. Check the sprayer daily to ensure proper calibration and uniform application over the field. Apply TREFLAN E.C. to soil surface and incorporate in the same operation if possible.

Do not delay incorporation more than 24 hours after application. When applied as directed, TREFLAN E.C. will not harm the treated crop or crops that follow in rotation, however, an over-application caused by overlapping, letting the sprayer run in one spot, improper calibration, non-uniform application etc., may reduce stands of treated crops, crops that follow in rotation.

INCORPORATION

To incorporate, work TREFLAN E.C. into the soil in two different directions. Use a tandem disc, discer or field (Vibrashank type) cultivator set to work 8-10 cm deep for the first incorporation. A field cultivator (Vibrashank

type) is defined as an implement with 3 or 4 rows of sweeps spaced at intervals of 20 cm or less and staggered so that no soil is left unturned. The second incorporation should be a discing or cultivation in a cross direction at the same dept anytime prior to planting.

Operate disc implements 7-10 km/hr. and cultivators at 10-13 km/hr. Failure to operate implements at recommended speeds may result in erratic weed control due to poor TREFLAN E.C. distribution in the soil. (DEEP TILLAGE CULTIVATOR NOT RECOMMENDED.)

TREFLAN E.C. 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, crop damage, or rotational crop damage.

Rod weeders, harrows, deep tillage cultivators, chisel plows, or hoe drills will not properly incorporate TREFLAN E.C.

SPRING APPLICATION

TREFLAN E.C. can be applied immediately prior to or up to three weeks before planting.

SUMMER APPLICATION

TREFLAN E.C. can be applied to summerfallow between June 1 and Sept. 1 for weed control in canola or flax the following year. Apply the summer rate and incorporate as above. Not recommended for sand and sandy loam soils.

TREFLAN E.C. must be incorporated at least twice with the implement operated in two different directions. The initial incorporation must be done within 24 hours after application.

The second incorporation (and subsequent incorporations) may be done whenever necessary to destroy resistant weed growth during the remainder of the fallow season. Shallow tillage (5-8 cm) is necessary in the spring prior to planting. (Refer to Spring Tillage for Seedbed Preparation.)

FALL APPLICATION

TREFLAN E.C. can be applied in the fall between Sept. 1 and prior to soil freeze-up for weed control the following year. Apply fall rates and-incorporate as above. The initial incorporation must be done within 24 hours after application. It is preferred to do both incorporations in the fall followed by tillage (5-8 cm) in the spring prior to planting. However, one incorporation may be done in the fall and the second in the spring at the time of seedbed preparation, provided both operations are done at the recommended depth. (Refer to Spring Tillage for Seedbed Preparation.)

SPRING TILLAGE FOR SEEDBED PREPARATION

Spring tillage following summer or fall application of TREFLAN E.C. should be done prior to seeding when the soil is warm enough to promote germination. Use a disc or field cultivator (Vibrashank) set to cut at 5-8 cm deep. For optimum weed control in soils with heavy wild oat populations prework early in the spring with a shallow cultivation to promote weed seed germination, followed by a 5-8 cm deep cultivation prior to seeding to destroy existing green growth. Avoid transplanting weed seedlings, seed into a weed-free seedbed using accepted cultural practices. Avoid excessive compaction of the TREFLAN E.C. treated soil layer. Any operation that results in a shallower 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.

SPECIAL INSTRUCTIONS FOR FLAX AND LENTILS

1. Both incorporations of TREFLAN E.C. must be done in the season of application prior to seeding flax in the spring.
2. The seedbed should be shallowly tilled (5-8 cm) and packed just prior to seeding in the spring to ensure a firm seedbed and accurate depth of planting.
3. Seeding should be done with a press drill or hoe drill. Seed into a moist seedbed no or 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 warning statement regarding stresses that can lead to crop injury or yield reduction.

TREFLAN E.C. USE FOR OILSEED AND SPECIAL CROPS

RECOMMENDED RATES OF TREFLAN E.C.

Crop	Soil Zones and Soil Organic Matter	Soil Texture	
		Light	Medium to Heavy
		sandy sandy loam	loam silty clay loam silty clay silt loam Clay loam silt Clay sandy clay Clay loam
Spring Canola T.T. Canola Mustard Dry Beans Soybeans Faba Beans Black Beans Peas Sunflowers Safflower Crambe Alfalfa Est. Saintoin Sweet Clover	Brown Dark Brown or Black 2.6% O.M.	1.5L/ha	2.0L/ha
	Black or Deep Black 6-15% O.M.	2.0L/ha	2.0L/ha Use 2.6L/ha for heavy wild oat infestations
SUMMER Canola	Brown		
T.T. Canola Flax Safflower	Dark Brown Black Deep Black	Not Recommended	3.0L/ha

FALL Canola T.T. Canola Mustard Dry Beans Flax Soybeans faba Beans Black Beans Peas Lentils Sunflower Safflower Alfalfa Establishment	Brown Dark Brown or Black 2-6% O.M.	2.0L/ha	2.6L/ha
	Black or Deep Black 6-15% O.M.	2.6L/ha	2.6-3.0L/ha Use 3.0L/ha for heavy wild oat infestations

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

TREFLAN E.C. APPLICATION WITH FLUID FERTILIZER

Treflan E.C. may be mixed with liquid nitrogen fertilizer (e.g. 28-0-0) for application either preplant soil incorporated or postplant incorporated. TREFLAN E.C. may also be mixed with Avadex BW and liquid fertilizer for postplant incorporated application in wheat or barley. All TREFLAN E.C. label recommendations regarding rates per hectare, approved crops, incorporation, special instructions, cautions and special precautions must be followed.

TREFLAN E.C. should be poured directly into the liquid fertilizer, mixed thoroughly and applied as soon as possible. Constant agitation is needed until application is complete. Apply the TREFLAN E.C./fertilizer mixture with properly calibrated equipment suitable for liquid fertilizer application. Ensure that the material is applied uniformly to the soil surface. Follow normal TREFLAN E.C. incorporation procedures.

Small quantities of liquid fertilizer and herbicide should be tested for compatibility prior to tank-mixing. Use the compatibility test as follows:

1. Put 500 mL of liquid fertilizer into a 1-L jar.
2. Add 10 mL of TREFLAN E.C.
3. Close jar and shake well.
4. The herbicide and fertilizer are compatible if the herbicide remains in suspension after five minutes. If the herbicide settles out quickly but goes into suspension easily upon shaking, the mixture may be used

- provided constant agitation is utilized.
5. A compatibility test is also recommended when there is a change in fertilizer supplies, fertilizer formulations and climatic temperatures.

TREFLAN IMPREGNATED/COATED ONTO DRY GRANULAR FERTILIZER

Dry bulk fertilizer may be impregnated or coated with TREFLAN E.C.. Application should be made as soon as possible after blending. All TREFLAN E.C. label recommendations regarding rates per hectare, approved crops, incorporation, special instructions, cautions, and special precautions must be followed.

To obtain commercially acceptable weed control with TREFLAN impregnated on fertilizer the following minimum rates of fertilizer must be used:

SPRING Application	330 kg/ha
FALL Application	250 kg/ha

Mix and blend dry fertilizer and TREFLAN E.C. in any commonly use dry fertilizer blender. Ensure that uniform spray coverage is obtained. Sufficient blending/mixing time should be allowed to obtain uniform coverage of dry fertilizer with TREFLAN E.C.

Spread the fertilizer/TREFLAN E.C. mixture with a properly calibrated granular fertilizer applicator. Be certain the blended material is applied uniformly to the soil surface. The first incorporation should be completed as soon as possible (within 24 hours) after fertilizer application. It is recommended to DELAY THE SECOND INCORPORATION FOR A PERIOD OF AT LEAST SIX DAYS to ensure optimum TREFLAN dissipation within the soil.

CAUTION: Any commonly used dry fertilizer can be used for TREFLAN E. C. impregnation except ammonium nitrate. Use with nitrate fertilizers may cause explosion and fire.

NOTE: Compliance with the Fertilizer Act and Regulations (Agriculture Canada) is the responsibility of the individual/company selling the TREFLAN E.C./fertilizer mixture.

TREFLAN E.C. USE FOR TRIAZINE-TOLERANT CANOLA (T.T.CANOLA)

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

TREFLAN E. C. PLUS SENCOR (TANK-MIX), PREPLANT INCORPORATED

TREFLAN E.C. may be applied in a tank-mix combination with Sencor as a pre-plant incorporated broadcast application to triazine-tolerant canola for the control of many annual grasses and broadleaf weeds.

WEEDS CONTROLLED BY TREFLAN E. C. PLUS SENCOR

In addition to those weeds controlled by TREFLAN alone, the Treflan/Sencor tank-mix will control the following:

Wild Mustard	Volunteer Canola (non-triazine-tolerant)
Stinkweed	Shepherd's-purse
Green Smartweed	Hempnettle
Lady's Thumb	

APPLICATION

Select the proper rates of TREFLAN E.C. and Sencor 500F/75DF as shown based on soil type a percent organic matter. Follow all land preparation, mixing, spraying, incorporation directions and precautions on this label.

FOR TRIAZINE-TOLERANT CANOLA; PEDIGREED SEED ONLY.

MIXING SEQUENCE:

IT IS IMPORTANT TO FOLLOW THE CORRECT SEQUENCE WHEN MIXING TREFLAN E.C. AND SENCOR IN THE SPRAY TANK.

The following steps are essential when combining TREFLAN E.C. with Sencor.

1. Fill the spray tank 1/4 to 1/3 full with clean water.
2. While continuing to fill the spray tank and with the agitation and recirculating system operating, slowly add the full amount of Sencor for the tankload.
3. Fill the spray tank to the desired level with clean water, while maintaining constant agitation of the mixture.
4. After the full amount of Sencor is thoroughly mixed, add the calculated amount of TREFLAN E.C. to the tank and agitate thoroughly.
5. To avoid any compatibility problems, spray immediately. Continuous agitation is required until the mixture is sprayed out. Do not allow the sprayer to stand without agitation or settling will occur and vigorous mixing with a paddle will be necessary to remix the chemical in

the spray tank.

Use the Rinse/Drain and Disposal Procedure which follows to ensure all contents are removed from containers prior to disposal.

SPRAY APPLICATION:

Apply the tank-mix of TREFLAN and Sencor the soil surface and incorporate in the same operation, if possible. Do not delay first incorporation more than 24 hours after application. Apply the tank-mix in at least 100 L of water per hectare (broadcast basis) using any properly calibrated low-pressure herbicide sprayer that will apply the spray uniformly. Application may be made with any properly calibrated commercial tractor-drawn or self-propelled field sprayer equipped with the following:

1. Nozzle tips no finer than 6502, 8002 or TK2 with nozzle screens no finer than 0.3 mm (50 mesh).
2. 0.3 mm or larger line strainers or screen
3. A pump of sufficient capacity to provide adequate volume through the bypass and/or jet agitation system to provide a uniform spray mixture even while the booms are operating.

NOTE: Felt Filters, small nozzle tips or smaller screens will become clogged.

SPRAYER CLEANUP:

Spray equipment must be thoroughly cleaned to remove remaining traces of herbicide that might injure other crops to be sprayed. Drain any remaining spray solution of Sencor and TREFLAN from the spray tank and discard in non-crop areas away from water supplies. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of 250 mL/100L of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5 minutes and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of the spray tank, nozzles or spray rig.

INCORPORATION

Refer to General Information for Oilseeds and Special Crops

NOTE: TREFLAN E.C. and Sencor can be applied in the fall prior to soil

freeze-up for weed control the following year. Apply fall rates and incorporate as above. The initial incorporation must be done within 24 hours after application. It's preferred to do both incorporations in the fall followed by tillage (5-8 cm) in the spring prior to planting. However, one incorporation may be done in the fall and the second in the spring at the time of seedbed preparation, provided both operations are done at the recommended depth. (REFER TO SPRING TILLAGE RECOMMENDATIONS.)

SPRING TILLAGE AND SEEDBED PREPARATION

Spring tillage following fall application of TREFLAN E.C. and Sencor should be done when the soil is warm enough to promote germination. Use a disc or Vibrashank cultivator operated at 5-8 cm deep. Avoid transplanting weed seedlings. Seed into a weed-free seedbed using accepted cultural practices. Since triazine-tolerant canola is sensitive to deep seeding, the seedbed should be shallowly tilled and packed just prior to seeding in the spring to ensure a firm seedbed and accurate depth of planting.

SPRING APPLICATION

RECOMMENDED RATES OF PRODUCT PER HECTARE

Treflan E.C.	Soil Texture	
	Light	Medium or Heavy
Soil Zones and Soil Organic Matter	sand sandy loam	loam Silty clay loam silt loam silty clay silt clay loam sandy clay clay loam
2.6% O.M. 6-15% O.M.	1.5 L/ha 2.0 L/ha	2.0 L/ha 2.0-2.6 L/ha
Sencor		
O.M.	75DF	500F
2-3%	375 g/ha	550 mL/ha
3-6%	475 g/ha	700 mL/ha
6-10%	475-550 g/ha	700-850 mL/ha
10%+	550+ g/ha	850+ mL/ha

Use the 3.0 L/ha rate of Treflan E.C. for heavy wild oat infestation.

FALL APPLICATION

Recommended Rates of Product per Hectare

Treflan E.C.	Soil Texture	
	Light	Light or Heavy
Soil Zones and Soil Organic Matter	sand sandy loam	loam silty clay loam silt loam silty clay silt clay loam sandy clay clay loam
2-6% O.M. 6-15% O.M.	2.0 L/ha 2.6 L/ha	2.6 L/ha 2.6-3.0 L/ha
Sencor O.M. 75DF 500F 2-3% 375 g/ha 550 mL/ha 3-6% 475 g/ha 700 mL/ha 6-10% 475-550 g/ha 700-850 mL/ha 10%+ 550+ g/ha 850+ mL/ha		

Use the 3.0 L/ha rate of Treflan E.C. for heavy wild oat infestation.

NOTE:

1. On variable soils with light sandy areas, some injury may occur on the sandy areas if the rate used is for the heavier soil type in the field.
2. Do not use on soils with less than 2% organic matter.
3. On soils with 10% organic matter and higher, broadleaf weed control may not be adequate.
4. Uneven application or improper soil incorporation of TREFLAN E.C. and Sencor may result in erratic weed control or crop injury depending on rate used.
5. Stress conditions such as seedling disease, cold weather, deep planting, excessive moisture, high salt concentration or drought may weaken canola seedlings and increase the possibility of damage from TREFLAN E.C. and Sencor. Temporary lightening in colour may occur on the margins of cotyledons and a slight delay in crop development may be observed. This is quickly outgrown and usually has no lasting effect.
6. THIS TREATMENT FOR USE ONLY ON TRIAZINE-TOLERANT CANOLA. NON-TRIAZINE-TOLERANT CANOLA WILL BE KILLED BY THIS COMBINATION.

IMPORTANT: Rotation crops, such as onions, celery, peppers, colecrops, lettuce and spinach, sugar beets, table beets and turnips, pumpkin and squash, cucumbers and melons, tobacco and canola(non-triazine-tolerant) are sensitive to Sencor and may be injured if planted in soil treated with Sencor during the year of application and following crop year. After harvest,

tillage practices that provide thorough mixing of the soil may be helpful in reducing the chance of injury to succeeding crops. Do not use this product on triazine-tolerant canola grown in muck soils. (If Sencor is applied to muck soils subsequent crops may be injured.)

As a precaution oats, sugar beets and small-seeded annual grasses such as timothy, canaryseed grass and creeping red fescue should not be grown in rotation following a TREFLAN E.C. treated crop.

TREFLAN E.C. PLUS A REGISTERED POSTEMERGENT TRIAZINE HERBICIDE FOR
TRIAZINE-TOLERANT CANOLA

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

TREFLAN E.C. may be applied in the summer, fall and, spring for triazine tolerant canola. A post emergence triazine herbicide registered for this use may then be applied after crop emergence to control several additional broadleaf weeds. The registered products include Bladex (R5) and Sencor. Refer to individual labels of the postemergence herbicides for specific recommendations and follow warnings and precautions as stated.

TREFLAN E.C. USE FOR SOYBEANS

For TREFLAN E.C. on soybeans refer to TREFLAN Use for Oilseeds and Special Crops. A tank mix combination of Treflan + Sencor may be used for weed control in soybeans.

For TREFLAN E.C. plus Sencor, refer to Treflan Use on Triazine-Tolerant Canola. Follow all directions and precautions.

NOTE: Do not plant soybean varieties Ace, Apache, Baron, Maple Amber, Maple Ridge, Nottawa or Portage on areas treated with Sencor as unacceptable injury may result.

TREFLAN E.C. USE FOR WHEAT AND BARLEY; POSTPLANT INCORPORATED (HARROWED IN AFTER SEEDING)
CROPS REGISTERED

Hard Red Spring Wheat	Durum Wheat
Soft White Spring Wheat	Barley

WEEDS CONTROLLED

Wild Millet (Green+ & Yellow Foxtail)

+ TREFLAN E.C. will not control trifluralin tolerant Green Foxtail. See specific recommendations in WARNING section of the label.

MODE OF ACTION

TREFLAN E.C. is applied and incorporated in the soil in the spring AFTER PLANTING and prior to the emergence of the wheat and barley for the control of Wild Millet (Green and Yellow Foxtail.) Weed control is achieved by establishing a shallow (2cm treated layer of TREFLAN E.C. near the soil surface. Within this layer TREFLAN E.C. controls weed seeds by killing them as they germinate. Generally the majority of wild millet seeds germinate from this depth. However, in some years due to climatic conditions, wild millet may germinate from a deeper depth. Consequently, deep-seeded wild millet seeds germinating below the TREFLAN E.C. layer may not be controlled. Crop safety is maintained since the wheat and barley seeds are located in the untreated soil beneath the TREFLAN E.C. layer.

LAND PREPARATION

Plant your wheat and barley as you normally do. Wheat and barley should be seeded in a depth of 5-8 cm in a well-tilled seedbed.

APPLICATION & INCORPORATION

TREFLAN E.C.

(harrowed in after seeding)

Rate per Hectare

	Soil Texture	
	Light to Medium	Heavy
Treflan E.C.	1.1 L/ha	1.5 L/ha

1. Add the recommended amount of TREFLAN E.C. to clean water in the spray tank during the filling operation and agitate thoroughly. Apply at least 100 L/ha of water (broadcast basis) using any properly calibrated low-pressure herbicide sprayer. Check the sprayer daily to ensure proper calibration and uniform application.
2. Apply TREFLAN E.C. as soon as possible after seeding and before crop emerges.
3. Apply TREFLAN E.C. to soil surface which is free of trash or was fallowed the previous year. TREFLAN E.C. should not be sprayed or incorporated when the soil is crusted, lumpy, or too wet for good mixing action.

4. Application and the first incorporation should be done in the same operation, if possible. Incorporate to a shallow depth with diamond harrows or tyne harrows in two different directions at speeds of 8-11km/hr. Both incorporations must be done within 24 hours of application of TREFLAN E.C. Uneven incorporation may result in some wild millet escapes in the bottom of furrows left by the last row of the harrows if the depth of the TREFLAN treated layer in these troughs is not sufficient to prevent emergence of wild millet. To obtain a more uniform layer of treated soil, operate tyne harrows inclined at least 45 degrees backwards and harrow at a speed which minimizes the amount of soil ridging by the harrows.

CAUTION: Wheat or barley may be injured if seeded through a treated layer or into a deeply-incorporated layer of TREFLAN E.C. Applied according to directions and under normal growing conditions TREFLAN E.C. will not adversely affect wheat or barley. Seedling disease, cold weather, improper seeding depth, excessive moisture, high salt concentration or drought may weaken crop seedlings and increase the possibility of damage from TREFLAN E.C. Under these conditions, delayed crop development or reduced yields may result. This TREFLAN E.C. treatment may not provide adequate control of weeds other than Wild Millet (Green Foxtail and Yellow Foxtail).

TREFLAN E. C. PLUS AVADEx BW (TANK-MIX): POSTPLANT INCORPORATED (HARROWED IN AFTER SEEDING)

Crops Registered
Wheat Barley

Weeds Controlled

Wild Millet (Green* & Yellow Foxtail)
Wild Oats

*TREFLAN E.C. will not control trifluralin tolerant Green Foxtail. See specific recommendations in WARNING section of the label.

LAND PREPARATION

Seed crop before application. Seed wheat/barley to depth of 5-8 cm using conventional seeding implement.

APPLICATION/INCORPORATION

TREFLAN E.C. Plus Avadex BW (Tank-mix)

RATE PER HECTARE

Crop	Soil Texture	
	Light to Medium	Heavy
Barley	Teflan E.c.	1.1 L/ha 1.5 L/ha
	Avadex BW	4.25 L/ha
Wheat	Treflan E.E.	1.1 L/ha 1.5 L/ha
	Avadex BW	3.5 L/ha

1. Apply and soil incorporate TREFLAN E.C. plus Avadex BW in a tank-mixed combination in the spring after plating and prior to emergence of wheat or barley.
2. Soil-incorporate the mixture to a shallow depth (above the seed). SHALLOW incorporation may be accomplished with DAMOND HARROWS, TYNE HARROWS or other similar implements operated twice over the treated area.
3. Application should be confined to fields which are trash-free or were fallowed using the previous year.

TREFLAN E.C. USE FOR STRAWBERRIES, SASKATOON BERRIES AND ESTABLISHED ASPARAGUS

Strawberries

Apply TREFLAN E.C. prior to planting transplanted strawberries. Follow recommended soil preparation, application and incorporation procedures for TREFLAN E.C. Apply only in the spring. Do not exceed the maximum application rate of 2.0L/ha. Over-application may delay establishment of runner plants.

Saskatoon Berries

Apply Treflan E.C. prior to planting transplanted Saskatoon berries. Follow recommended soil preparation, application and incorporation procedures for Treflan E.C. Apply only in the spring. Do not exceed maximum application rate of 2.0 L/ha.

Asparagus (Established three years)

Follow recommended soil preparation, application and incorporation procedures for TREFLAN E.C. Apply to established asparagus in the early spring after ferns are removed but before spear emergence. Or apply after harvest in the late spring or early summer before ferning begins.

CAUTION: Set implements so asparagus crowns are not injured during soil preparation and incorporation.

TREFLAN E.C. USE FOR SHELTERBELTS

Apply TREFLAN E.C. prior to transplanting seedlings. The higher rate of application will result in better weed control and longer persistence in the soil. Refer to General Information for Oilseed and Special Crops for details on application and incorporation.

RECOMMENDED RATES OF TREFLAN E.C. (LITRES PER HECTARE)

Crop	Soil Zones and Soil Organic Matter	Soil Texture	
		Light	Medium to Heavy
		Sand sandy loam	loam Silty clay loam silt Clay loam sandy clay Clay loam
Strawberries Saskatoon berries	brown, dark brown or black 2-6% O.M.	1.5 L/ha	2.0 L/ha
Spring Application only	black or deep black 6-15% O.M.	2.0 L/ha	2.0 L/ha
Asparagus- established three years		1.8 L/ha	2.7-3.7 L/ha++
American Elm Caragana Green Ash Scotch Pine Siberian Elm		4.1 L/ha (2-6% OM)	8.2 L/ha (6-15% O.M.)

+ Use the higher rate for season long weed control.

NOTE: TREFLAN E.C. at 2 L/ha may be applied pre-plant incorporated one week prior to sowing Siberian Elm seed, for annual grass and broadleaf weed control.

TREFLAN E.C. USE FOR VEGETABLES

Apply TREFLAN E.C. prior to planting. Follow all recommended soil preparation, application and incorporation procedures for TREFLAN E.C. Apply only in spring.

TREFLAN E.C. USE FOR VEGETABLE CROPS
(SPRING APPLICATION ONLY)

RECOMMENDED RATES OF TREFLAN E. C. (LITRES PER HECTARE)

Crop	Soil Zones and Organic Matter	Soil Texture	
		Light	Medium to Heavy
		Sand sandy loam	loam Silty clay loam silt loam silt Silty clay sandy clay laom
Carrots, Snap & Common Beans, Rutabaga Tomatoes Broccoli Brussel Sprouts Cauliflower Cabbage	brown, dark brown or black 2-6% O.M.	1.5 L/ha	2.0 L/ha
	black or deep black 6-15% O.M.	2.0 L/ha	2.0-2.6 L/ha

- (1) Transplants only
- (2) Direct seeded or transplanted.
- (3) Use the 2.6 L/ha rate for heavy wild oat infestation (cole crops only).

USE OF TREFLAN E.C. FOR FORAGE LEGUMES
(SEED PRODUCTION/FORAGE)

Apply Treflan E.C. prior to seeding. Follow recommended soil preparation, application and incorporation procedures for Treflan E.C. Apply only in the spring. Do not exceed the maximum application rate of 2.0 L/ha.

Recommended Rates of Treflan E.C. (litres per Hectare)

Crop	Soil Zones and Soil Organic Matter	Soil Texture	
		Light	Medium to Heavy
		sand sandy loam	loam Silty clay loam silt loam clay loam silt Silty clay sandy clay clay loam
Seedling Alsilke Clover Red Clover Cicer Milkvetch	brown, dark brow or black 2-6% O.M.	1.5L/ha	2.0 L/ha
Bird's-Foot Trefoil	black or deep black 6-15% O.M.	2.0 L/ha	2.0 L/ha

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IPCO

Treflan E.C.

Net Contents: 8.3 Litres

SELECTIVE LIQUID HERBICIDE FOR PRE-PLANT SOIL INCORPORATED WEED CONTROL IN MANY FIELD CROPS, VEGETABLES AND ORNAMENTAL

PRAIRIE PROVINCES

READ THE LABEL BEFORE USING

GUARANTEE: Trifluralin 545 g/L

REGISTRATION NO. 17132 PEST CONTROL PRODUCTS ACT

AGRICULTURAL

KEEP OUT OF REACH OF CHILDREN

Distributed by:

INTERPROVINCIAL COOPERATIVE LIMITED
P.O. BOX 1050
SASKATOON, SASKATCHEWAN
S7K 3M9
(204) 233-3461

AGRICULTURAL CHEMICAL

DO NOT SHIP OR STORE WITH FOOD, FEEDS, DRUGS OR CLOTHING.

CAUTION

FAILURE TO FOLLOW LABEL INSTRUCTIONS MAY RESULT IN ERRATIC WEED CONTROL OR CROP DAMAGE. READ ALL DIRECTIONS CAREFULLY BEFORE APPLYING. THESE INSTRUCTIONS APPLY TO CROPS GROWN IN PRAIRIE PROVINCES ONLY.

PRECAUTION

KEEP OUT OF REACH OF CHILDREN

HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN. Avoid contact with skin, eyes or clothing. Do not store near heat or flame. Avoid contamination of foodstuffs, feeds and fish ponds.

FIRST AID

In case of contact, flush with water. Contact physician if swallowed. If swallowed, induce vomiting followed by at least 300 mL of water to children and 700 mL to adults. Make certain vomitus is not inhaled. After vomiting occurs, give 30-40 mL of activated charcoal in 100 mL of water.

ENVIRONMENTAL HAZARD

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.

STORAGE

DO NOT FREEZE

Store TREFLAN E.C. in heated storage. Active ingredient crystallization may occur at temperatures below 5 deg. C. If stored below 5 deg. C., check for crystals in the bottom of each container. If crystals are present, place the container in a warm area (at least 15 deg. C.) for several hours. For smaller containers, agitate contents by inverting several times and return it

to the upright position. For larger containers circulate contents. After several hours, if any crystals remain, agitate or circulate container contents again.

ENSURE ANY CRYSTALS ARE DISSOLVED BEFORE ADDING TO SPRAY TANK. RINSE, DRAIN AND DISPOSAL PROCEDURE
NON-RETURNABLE CONTAINERS

1. Rinse the emptied container thoroughly and add rinsings to the spray mixture in the tank.
2. Follow Provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Do not reuse container.
4. Make the empty container unsuitable for further use and dispose in accordance with Provincial requirements.
5. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the regional office of Conservation and Protection, Environment Canada.

NOTICE TO USER

This control product is to be used only in accordance with the directions on this label. It is an offense under the Pest Control Products Act to use a control product under unsafe conditions.

NOTICE TO BUYER

Seller's guarantee shall be limited to the terms set out on the label and subject thereto; the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

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