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ALBERTA POOL

PRAIRIE PROVINCES

Treflan(R) E.C.

A Selective Liquid Herbicide for
Preemergence Weed Control In Many
Field Crops, Vegetables and Ornamentals

28.5 LITRES

TREFLAN HANDI-JUG*

READ THIS LABEL BEFORE USING

GUARANTEE: TRIFLURALIN.....545 GRAMS PER LITRE

REGISTRATION NO. 17105 PEST CONTROL PRODUCTS ACT

AGRICULTURAL UC 5176

*TREFLAN and HAND-JUG are registered trademarks of Eli Lilly and
Company. ELANCO Division Eli Lilly Canada Inc. is a registered user.

Distributed By

ALBERTA WHEAT POOL
505-2nd Street S.W.
Calgary, Alberta
T2P 1N8

INSTRUCTIONS

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.

WARNING:

Do not apply to peat or muck soils. Do not apply to wet soils, soils in poor working condition or soils which contain more than 15% organic matter. Do not apply to soils subjected to prolonged periods of flooding. Apply at the recommended rates. Applied and incorporated according to directions and under normal growing conditions TREFLAN E.C. will not harm the treated crop. Seedling disease, cold weather, deep planting, excessive moisture, high salt concentration or drought may weaken crop seedlings and increase risk of damage from TREFLAN E.C., resulting in delayed crop development or reduced yields.

Under normal conditions, TREFLAN E.C. carryover will not harm crops grown in rotation. As a precaution, oats, sugarbeets and small-seeded annual grasses such as Timothy, Canary seed grass and Creeping Red Fescue, should not be grown in rotation following a TREFLAN E.C.-treated crop.

If stored below 5'C, check for crystals in the bottom of each container. If crystals are present, place the container in a warm area (at least 15'C) for several hours. Then agitate contents by inverting tee jug 2-3 times and return it to the upright position. After several hours, if any crystals remain, agitate container again.

ENSURE ALL CRYSTALS ARE DISSOLVED BEFORE ADDING TO SPRAY TANK.

RINSE/DRAIN AND DISPOSAL PROCEDURE:

1. Drain container into spray tank, (after normal emptying), in a vertical position for 30 seconds.
2. Rinse carefully 3 times with 3L of water for each rinse and drain into spray tank after each rinse.
3. Do not reuse container.
4. Incinerate the empty container or crush and bury it in an isolated location away from water supplies with at least 50 cm of cover.

PRECAUTION:

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Keep out of reach of children. 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.

NOTICE TO USER:

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

TREFLAN E.C. is a preemergence 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.

DIRECTIONS FOR USE ON OILSEED CROPS

NOTE: REFER TO SECTION ON WHEAT AND BARLEY FOR SPECIFIC INSTRUCTIONS ON THE USE OF TREFLAN E.C. CONTROL OF WILD MILLET (GREEN FOXTAIL AND YELLOW FOXTAIL)

LAND PREPARATION

(See below for weeds controlled and crops registered)

Cultivate to destroy existing weeds before TREFLAN E.C. application. When applying to stubble fields, chop and thoroughly mix crop residues into soil to a depth of 10-15 cm. 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 E.C. application.

APPLICATION

Add the recommended amount of TREFLAN E.C. to clean water in the spray tank during the filling operation and agitate thoroughly. Apply in at least 100 L of water per hectare (100 L/ha, 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. Apply TREFLAN E.C. 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 E.C. will not harm 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 crops that follow in rotation.

INCORPORATION

To incorporate, work TREFLAN E.C. into the soil in two different directions. Use a tandem disc, discer of field (Vibrashank type) cultivator set to work 8-10 cm deep for the first incorporation. Disc or cultivate in a cross direction at the same depth. Operate disc implements at 7-10 km/h and cultivators at 10-13 km/h. (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 or crop damage.
- Rod weeders, harrows, deep tillage cultivators, chisel plows, or hoe drills will not properly incorporate TREFLAN E.C.

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 shallow tillage, (5-8cm) 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.)

SUMMER APPLICATION

TREFLAN E.C. can be applied to summerfallow between June 1 and Sept. 1 for weed control in rapeseed or flax the following year. Apply the summer rate and incorporate as above. 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 recommendations.)

SPRING TILLAGE FOR SEEDED PREPARATION

Spring tillage following Summer or Fall application of TREFLAN E.C. 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.

TREFLAN E.C. APPLICATION WITH FLUID FERTILIZERS

TREFLAN E.C. may be mixed with liquid nitrogen fertilizer (eg. 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 a 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.

COMPATIBILITY TEST:

Small quantities of liquid fertilizer and herbicide should be tested for compatibility prior to tank-mixing.

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.

WEEDS CONTROLLED

Annual Grasses	Annual Broadleaves
Wild Oats	Wild Buckwheat
Wild Millet	Cow Cockle
(Green and Yellow Foxtails)	Pigweed
Barnyard Grass	Lambs-quarters
Crab Grass	Russian Thistle
Brome Grass	Chickweed
Cheat	Purslane
Stink Grass	Knotweed
Goose Grass	Carpetweed
Annual Blue Grass	Persian Darned

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.

CROPS REGISTERED

Rapeseed	Flax (Summer and Fall Application Only)
Soybeans	Sunflower
Mustard	Faba Beans (Horsebeans)
Dry Beans	Peas (Field and Canning)
Black Beans	Crambe
Lentils (Fall Application Only)	Transplanted Shelterbelts

RECOMMENDED RATES OF TREFLAN E.C. PER HECTARE		
CROPS	SOIL TEXTURE	REMARKS

	LIGHT	MEDIUM OR HEAVY	
	Sand Sandy loam (less than 6% organic matter)	Loam Silt loam Silt Sandy clay loam (all soils with 6-15% organic matter)	
SPRING APPLICATION Rapeseed, Soybeans, Sunflower, Dry Beans (White & Kidney), Mustard, Faba Beans, Crambe, Peas (Field & Canning), Black Beans	1.5 L	2.0 L - 2.6 L	TREFLAN E.C. can be applied immediately prior to, or up to 3 weeks before where wild oat planting. The highest rate (2.6 L/ha) should be applied infestation is heavy in soils with high organic content (i.e. 6-15%).
Shelterbelts (American Elm, Caragana, Green Ash, Scotch Pine, and Siberian Elm)	4.1 L	8.2 L	Apply prior to transplanting seedlings. The higher rate of application will result in better weed control and longer persistence in the soil. Wild mustard may not be controlled at these rates.

FALL APPLICATION Rapeseed, Sunflower, Faba Beans, Mustard, Flax, Peas, Black Beans, Soybeans, Drybeans, Lentils	2.0 L	2.6 L - 3.0 L	Apply and incorporate between Sept. 1 and prior to soil freeze-up. The highest rate (3.0 L/ha) should be applied where wild oat infestation is heavy, in soils with high organic content (i.e. 6-15%).
SUMMER APPLICATION Rapeseed, Flax	All Soils	3.0 L	Apply and incorporate between June 1 and Sept. 1. Second and subsequent incorporations may be done anytime prior to soil freeze-up.
NOTE: Do not delay incorporation more than 24 hours after application.			

SPECIAL INSTRUCTIONS FOR FLAX AND LENTILS

1. Both incorporations of TREFLAN E.C. should be done In the season of application prior to seeding flax in the spring.
2. The seedbed should be shallowly tilled (5- 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 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 warning statement regarding stresses that can lead to crop injury or yield reduction.

DIRECTIONS FOR USE IN WHEAT AND BARLEY FOR CONTROL OF WILD MILLET (GREEN FOXTAIL AND YELLOW FOXTAIL)

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 or barley for the control of Wild Millet (Green Foxtail and Yellow Foxtail). Wild Millet (Green Foxtail and Yellow Foxtail) control is achieved by establishing a shallow, treated layer of TREFLAN E.C. near the soil surface and safety is maintained since the crop seeds are located in untreated soil beneath the layer.

RECOMMENDATIONS FOR APPLICATION AND INCORPORATION OF TREFLAN E.C. FOR WHEAT AND BARLEY:

1. Wheat and barley should be seeded to a depth of 5-8 cm in a well-tilled seed bed.
2. Apply TREFLAN E.C. as soon as possible after seeding (before crop emerges) at 1.1 L/ha on light or medium textured soils or 1.5 L/ha on heavy textured soils. 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.
3. Apply TREFLAN E.C. to soil surface which is free of trash or was fallowed the previous year. Incorporate to a SHALLOW depth with DIAMOND HARROWS or TYNE HARROWS operated over the same area in two different directions at speeds of at least 8 km/h. Application and the first incorporation should be done in the same operation if possible. Both incorporations must be done within 24 hours of application of TREFLAN E.C.

TREFLAN PLUS AVADEx+ BW AS A TANK-MIXED POSTPLANT PREEMERGENCE INCORPORATED APPLICATION FOR WILD MILLET (GREEN FOXTAIL AND YELLOW FOXTAIL) AND WILD OAT CONTROL IN WHEAT AND BARLEY

RECOMMENDATIONS:

Apply and soil incorporate TREFLAN E.C. plus AVADEx BW in a tank-mixed combination in the spring after planting and prior to emergence of wheat or barley. Soil-incorporate the mixture to a shallow depth (above the seed). SHALLOW incorporation may be accomplished with DIAMOND HARROWS, TYNE HARROWS or other similar implements operated twice over the treated area. Seed to a depth of 5-8 cm using any conventional seeding implement. Apply TREFLAN E.C. at a rate of 1.1 L/ha on light and medium soils and 1.5 L/ha on heavy soils. Apply AVADEx BW at a rate of 3.5 L/ha in wheat and 4.25 L/ha in barley. Rates are stated on a broadcast basis. Application should be confined to fields which are trash-free or were fallowed during the previous year.

+AVADEx is a registered trademark of Monsanto Company U.S.A.

TREFLAN E.C. PLUS AMIBEN** AS A TANK-MIX APPLICATION FOR USE IN SUNFLOWERS AND SOYBEANS.

RECOMMENDATIONS:

For use as a preplant incorporated treatment for the control of TREFLAN E.C.-susceptible weeds plus AMIBEN susceptible weeds such as wild mustard and stinkweed. For the tank-mix broadcast treatment prior to planting, apply 9.25 L/ha of AMIBEN plus 1.5 L/ha of TREFLAN E.C. on light soils or 2.0 L/ha of TREFLAN E.C. on medium or heavy soils.

Follow all label directions above for the application and incorporation of TREFLAN E.C. in oilseed crops.

**AMIBEN is a registered trademark of Union Carbide Corporation.

TREFLAN E.C. PLUS CARBYNE++ AS A SEQUENTIAL APPLICATION FOR WILD MILLET (GREEN FOXTAIL AND YELLOW FOXTAIL) AND WILD OAT CONTROL IN WHEAT AND BARLEY

RECOMMENDATIONS:

CARBYNE (BARBAN) may be applied postemergence for the control of wild oats in wheat or barley Previously treated with TREFLAN E.C. for Wild Millet (Green Foxtail and Yellow Foxtail) control. For TREFLAN E.C. follow the directions as outlined above for Wild Millet (Green Foxtail and Yellow Foxtail) control in wheat and barley. For instructions on how to use CARBYNE, refer to the CARBYNE label.

++CARBYNE is a registered trademark of Velsicol Corporation of Canada Ltd.

CAUTION: TREFLAN E.C. must not be used on oats, rye, or grass crops. 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).

NOTE:

Do not use TREFLAN E.C. incorporated shallowly with harrows for weed control in oilseed crops. Refer to directions for use on oilseed crops for specific instructions on application and incorporation of TREFLAN E.C. on crops other than wheat and barley.

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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