

2000/2005

((LABEL))

RIVAL(R) DF

DRY FLOWABLE HERBICIDE

EASTERN CANADA AND BRITISH COLUMBIA

COMMERCIAL

AgrEvo Canada Inc.
295 Henderson Drive
Regina, SK S4N 6C2
Telephone: 1-800-667-5959

[logo] AgrEvo [tractor]

NET CONTENTS:
7.5 KILOGRAMS
(16.5 POUNDS)

RIVAL DF BECOMES A SUSPENSION IN WATER. MAINTAIN CONTINUOUS AGITATION.

RIVAL(R) DF

READ LABEL AND ATTACHED DIRECTIONS FOR USE BEFORE USING.

RIVAL DF DRY FLOWABLE HERBICIDE

FOR PRE-PLANT INCORPORATED CONTROL OF MANY GRASSY AND BROADLEAF WEEDS IN
FIELD CROPS, VEGETABLES AND ORNAMENTALS

EASTERN CANADA AND BRITISH COLUMBIA

WARNING: EYE IRRITANT

REGISTRATION NO. 22783
PEST CONTROL PRODUCTS ACT

GUARANTEE: TRIFLURALIN 60 PERCENT

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. MAY CAUSE EYE IRRITATION AND DAMAGE. AVOID CONTACT WITH EYES, SKIN OR CLOTHING. Avoid breathing the spray mist. Wear chemical resistant gloves, safety goggles and coveralls when mixing/loading and during sprayer cleanup, or when adjusting/repairing sprayer. Do not wear contact lenses when using this product. Wash gloves with water before removing them after any operation. Wash hands thoroughly with soap and water after using this product and before eating, drinking or smoking. Use only for recommended purposes at the recommended rates. Avoid contamination of foodstuffs, feeds, fish ponds and water supplies.

STORAGE:

STORE AT COOL TEMPERATURES. DO NOT STORE UNDER DIRECT SUNLIGHT. Store away from seeds, fertilisers, plants and foodstuff. Keep in original container during storage.

WASTE DISPOSAL:

If spray solution remains in the tank after spraying is finished, it should be sprayed on the perimeter of the field just sprayed, NOT ON THE CROP, away from water supplies, ditches, and irrigation canals.

BAG DISPOSAL:

1. Empty bag thoroughly into spray tank.
2. Make the empty bag unsuitable for further use.
3. Dispose of the bag in accordance with provincial requirements.
4. For information of the disposal of unused, unwanted product and the clean-up of spills, contact the Provincial Regulatory Agency or the Manufacturer.

FIRST AID:

If swallowed seek medical attention immediately and rush to nearest hospital taking this brochure with you, or contact a poison control centre. In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water. If in eyes flush with plenty of water for 15 minutes and take patient to hospital at once, or contact a poison control centre.

NOTICE TO USER:

This control product is to be used only in accordance with the directions on this label. It is an offence 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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((BROCHURE))

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BEFORE USING**

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COMMERCIAL

WARNING: EYE IRRITANT

AgrEvo Canada Inc.
Agriculture Division
295 Henderson Drive
Regina, Sask. S4N 6C2
(306) 721-4500 collect

PT# 4184 12/92

GENERAL INFORMATION

RIVAL DF is a herbicide for the control of certain annual grassy and broadleaved weeds in Soybeans, Fababeans, Dry Common Beans (Kidney and White only), Black Beans, Peas (Field and Canning), Crambe, Snapbeans, Lima Beans, Carrots, Turnips (Stubble), Rapeseed (Canola), Triazine Tolerant Rapeseed (Canola), Sunflowers, Strawberries, Asparagus, and Tame Mustard; Transplants of Tomatoes, Peppers, Brussel Sprouts, Broccoli, Cabbage and Cauliflower; Direct seeded Cabbage, Cauliflower, and Alfalfa; Ornamentals (Woody Nursery Stock, Perennials), and Transplanted Shelterbelts. RIVAL DF can also be used to control Loose Silky-Bentgrass in fall rye and winter wheat.

For reasons of soil conservation Hoechst does not recommend the application of RIVAL DF to soils which are subject to erosion by wind, water, and other factors. Application under certain conditions such as low trash cover or light textured soils may predispose the field to wind and/or water erosion and is not recommended.

DIRECTIONS FOR USE

DIRECT SEEDED

- C Do not apply to soils which contain more than 15% organic matter such as peat or muck soils.
- C Do not apply to wet soils that are subject to excessive flooding.
- C Do not apply to soils that are extremely lumpy, cloddy or in poor working condition.
- C For maximum weed control and crop tolerance, follow label directions at all times. Read all directions before applying RIVAL DF.
- C RIVAL DF MUST NOT BE USED ON ANY CROP FOR WHICH IT IS NOT REGISTERED

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

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

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

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

TRANSPLANTS

Reductions in crop yield may occur if RIVAL DF is applied to weakened transplants. The precautions stated for Direct Seeded crops also apply to Transplants. As well, for maximum tolerance of all transplants ensure the following:

- C only healthy transplants should be used.
- C do not transplant under unfavourable growing conditions such as cool or wet weather.
- C follow all label instructions.

SUSCEPTIBLE WEEDS

ANNUAL GRASSES include Wild Oats, Green and Yellow Foxtail (Wild Millet), Barnyard Grass, Persian Darnel, Annual Bluegrass, Crabgrass, Stinkgrass, Bromegrass, Cheat, Fall Panicum, and Goosegrass. Loose Silky-Bentgrass will also be controlled by RIVAL DF in fall rye and winter wheat.

ANNUAL BROADLEAVED WEEDS include Pigweed, Russian Thistle, Lamb's-Quarter, Chickweed, Carpetweed, Knotweed and Purslane.

The above weeds will be controlled when RIVAL DF is applied at recommended rates and used as directed. Ensure that all incorporation directions are followed. Some wild oats may escape the RIVAL DF herbicidal action, however the crop competition will effectively suppress the escaped weeds so that little or no competition results with the crop.

FOR ALL USES EXCEPT LOOSE SILKY-BENTGRASS CONTROL IN FALL RYE AND WINTER WHEAT:

TIME OF APPLICATION

RIVAL DF is applied in the spring and before crop or weed emergence. It is incorporated thoroughly into the soil to provide herbicidal action that will control all susceptible weeds. RIVAL DF controls susceptible weeds as they germinate. RIVAL DF does not control established weeds.

LAND PREPARATION

Before applying RIVAL DF, ensure that all emerged and existing weeds have been eliminated through discing or cultivation. For application to stubble fields and trashy soils, thoroughly disc the soils prior to RIVAL DF application to ensure that all crop residues and trash material have been mixed into the soil to a depth of 10 - 15 cm. (4 - 6 in.). Disc implements are preferred for eliminating trash.

METHOD OF APPLICATION

Application should be made in a minimum of 100 litres of water per hectare (10 gal/acre) at a pressure of 200-275 kPa (30-40 p.s.i.). Apply RIVAL DF uniformly to the soil surface and incorporate within 24 hours after application. Do not apply to lumpy soils. Fill sprayer one-third full of clean water then add the recommended amount of RIVAL DF. Continue the filling operation until required volumes are achieved. Vigorous agitation is required before and during application of RIVAL DF. Apply with ground equipment only. If possible, incorporate RIVAL DF in the same operation as application.

NOTE: Spray out immediately. Spray mixture should not be left in the tank without agitation.

NOTE: Do not use line or nozzle screens finer than 50 mesh.

INCORPORATION

Incorporate with disc implements, rotary tillers or cultivators only. Deep tillage cultivators are not recommended. A tandem disc is recommended for the first incorporation. Do not delay the first incorporation more than 2 hours after RIVAL DF application. The first incorporation should be in the same direction as application. Both incorporations must be to a depth of 8 - 10 cm. (3 - 4 in.). The second incorporation must be at right angles to the first and can be done anytime prior to planting. Disc implements should be operated at 6 - 10 km/h (4 - 6 mph) and cultivators at 10 - 13 km/h (6 - 8 mph).

NOTE:

- C Incorporate RIVAL DF to a depth of only 8 - 10 cm. (3 - 4 in.) for maximum weed control and crop tolerance.
- C Cultivators should only be used for RIVAL DF incorporation when soil are in good working condition.
- C Do not incorporate RIVAL DF by using Hoe Drills, Rod Weeders, or Harrows.

"See Directions for Use"

Application Rates in Kilograms per Hectare (lbs/acre)

(ALL USES EXCEPT LOOSE SILKY-BENTGRASS CONTROL)

SOIL TEXTURE

	Light Sand, Sandy Loam	Medium Loam, Silt Loam, Silt, Sandy Clay Loam	Heavy Silty Clay Loam, Clay Loam, Silty Clay, Clay	
CROPS				REMARKS
Carrots, Fababeans Mustard, Dutch White Stubble Turnip, Crambe, Rapeseed (Canola), Triazine Tolerant Canola (Rapeseed), Sunflowers, Dry Beans (White and Kidney), Snapbeans Soybeans, Black Beans	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)	RIVAL DF may be applied and incorporated from 3 weeks before planting up to the time of planting.
Lima Beans, Peas (Field and Canning)	1.0 kg (0.9 lb)	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	RIVAL DF may be applied and incorporated from 3 weeks before planting up to the time of planting.

Direct Seeded: Alfalfa Cabbage Cauliflower	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)	RIVAL DF may be applied and incorporated from 3 weeks before planting up to the time of planting. Cole crops have shown poor tolerance to RIVAL DF in that they may be stunted or growth may be thinned out.
Transplants: Broccoli, Brussel Sprouts, Cabbage, Cauliflower, Peppers, Tomatoes	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)	RIVAL DF may be applied and incorporated from 3 weeks before planting up to the time of planting.
Ornamentals: Established Woody Nursery Stock	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)	Spray directly on to the soil. Caution must be taken to incorporate as close as possible to the plants.
Ornamentals: Transplants of Woody Nursery Stock and Perennials	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)	RIVAL DF may be applied and incorporated from 3 weeks before planting up to the time of planting.

Strawberries	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.8 kg (1.6 lb)	RIVAL DF may be applied and incorporated from 3 weeks before planting. The first incorporation must be within 24 hours of application. Use 1.8 kg/ha (1.6 lb/ac) maximum on strawberries.
Asparagus	1.7 kg (1.5 lb)	2.5 kg (2.2 lb)	3.3 kg (3.0 lb)	Use only on asparagus that has been established for at least 3 years.

DO NOT APPLY RIVAL DF TO AJUGA, MYRTLE, AND PACHYSANDRA ORNAMENTALS AS INJURY MAY RESULT.

DO NOT APPLY RIVAL DF TO TURNIPS OR MUSTARD ON SANDY SOILS.

NOTE: RIVAL DF must be incorporated within 24 hours of application.

RIVAL DF IN CANOLA (RAPESEED) AND TRIAZINE TOLERANT CANOLA

RIVAL DF may be applied in all canola varieties alone as a pre-plant incorporated spring application. DO NOT TANK-MIX RIVAL DF WITH SENCOR® IN ANY CANOLA EXCEPT TRIAZINE TOLERANT CANOLA VARIETY OAC/TRITON. CROP DAMAGE WILL OCCUR IF THIS TANK-MIX IS USED IN ANY OTHER CANOLA VARIETY.

The following rates of application should be used:

Rates in Kilograms or Litres per Hectare (Pounds or Quarts per Acre) Soil Texture			
Treatment	Light	Medium	Heavy
RIVAL DF	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)

Sencor 500 F (T.T.C.)	0.55 L (0.2 qt)	0.70 L (0.25 qt)	0.85L (0.3 qt)
Sencor 75 DF (T.T.C.)	0.375 kg(0.35 lb)	0.475 kg (0.4 lb)	0.55kg(0.5 lb)

Refer to the Sencor label for additional instructions and precautions in TRIAZINE TOLERANT CANOLA.

SOYBEANS

**RIVAL DF/LEXONE®
WEEDS CONTROLLED**

RIVAL DF/SENCOR®

ANNUAL GRASSES: Crabgrass, Green and Yellow Foxtail, Barnyard Grass, Wild Oats, Stinkgrass, Annual Bluegrass, Cheat, Goosegrass, Persian Darnel, Bromegrass and Fall Panicum.

BROADLEAVED WEEDS: Pigweed, Lamb's-Quarters, Purslane, Knotweed, Chickweed, Carpetweed, Russian Thistle, Wild Mustard, Smartweed, Velvetleaf, Common Ragweed, Cocklebur (partial control only), Jimson Weed and other broadleaved weeds.

BROADCAST RATES Kilograms/Hectare (Pounds/Acre) Litres/Hectare (Quarts/Acre)					
Soil Texture-(1)	RIVAL DF	LEXONE L	LEXONE DF	SENCOR 500F	SENCOR 75 DF
Light (Sandy loam(2) loamy sand(3))	1.0 kg (0.9 lb)	-	-	0.85 L (0.3 qt)	0.55 kg (0.5 lb)
Medium (loam, silt loam, silt, sandy clay loam)	1.3 kg (1.2 lb)	0.85 L (0.3 qt)	0.55 kg (0.5 lb)	1.1 L (0.4 qt)	0.75 kg (0.7 lb)
Heavy (silty clay, silty clay loam, clay loam, clay)	1.9 kg (1.7 lb)	1.1 L (0.4 qt)	0.70 kg (0.6 lb)	1.1 L (0.4 qt)	0.75 kg (0.7 lb)

- (1) In fields with different soil types, injury is possible on the lighter soil areas when the rate for heavier soils is used.
- (2) These soils may be classified as medium in some areas.
- (3) Soils with less than 1% organic matter should not be treated.

NOTE: Ensure proper and uniform application for maximum crop tolerance and weed control. Tank mixes of RIVAL DF and Lexone or Sencor may be applied to 10 days before planting. AVOID OVER-APPLICATION. ENSURE INCORPORATION INSTRUCTIONS ARE FOLLOWED.

While filling the spray tank with clean water, add the required amount of RIVAL DF. Agitate vigorously and continue to fill the spray tank to the desired level of water. Add the required amount of Lexone or Sencor. Continuous agitation is required until the mixture is sprayed out.

A weakened crop from those factors listed in "Directions for Use" may increase the possibility of RIVAL DF damage and cause a delay in crop maturity and/or reduced yields.

DO NOT USE RIVAL DF/LEXONE OR RIVAL DF/SENCOR ON ACE, MAPLE AMBER, NATTAV MAPLE RIDGE, CANATTO, BARON OR APACHE VARIETIES. (See Lexone and Sencor Labels for other restricted varieties).

DO NOT FEED CROP MATERIAL TREATED WITH RIVAL DF/LEXONE OR RIVAL DF/SENCOR TO LIVESTOCK.

DO NOT APPLY TO WATER USED FOR DRINKING PURPOSES OR FISHERY PRODUCTIVE PURPOSES.

DO NOT APPLY TO NON-TARGET PLANTS.

**RIVAL DF FOLLOWED BY AFOLAN® F (SPLIT APPLICATION)
IN SOYBEANS**

RIVAL DF may be applied and incorporated before seeding soybeans as directed on this label. This may be followed by an application of Afolan applied as a band or broadcast spray after planting soybeans. This split application will provide for very broad spectrum weed control. The following rates of RIVAL DF and Afolan F should be used.

	RATES Kilograms/Hectare (Pounds/Acre) Litres/Hectare (Quarts/Acre)
	Soil Texture

Treatment	Light	Medium	Heavy
RIVAL DF (Pre-Plant Incorporated)	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)
Afolan F, 480 g.a.i. formulation	-	1.9 L (0.68 qt)	2.5 L (0.9 qt)
Refer to the Afolan F label for additional instructions.			

**RIVAL DF FOLLOWED BY AFESIN® 2 E.C. (SPLIT APPLICATION)
IN DRY BEANS (WHITE AND KIDNEY)**

RIVAL DF may be applied in dry beans as a pre-plant incorporated treatment followed by Afesin 2 E.C. as a pre-emerge treatment. The following rates application should be used.

Treatment	RATES Kilograms/Hectare (Pounds/Acre) Litres/Hectare (Quarts/Acre)		
	Soil Texture		
	Light	Medium	Heavy
RIVAL DF (Pre-Plant Incorporated)	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)
Afesin 2 E.C.	3.75-5.5 L (1.3-2.0 qt)	3.75-5.5 L (1.3-2.0 qt)	3.75-5.5 L (1.3-2.0 qt)

Use these rates of Afesin 2 E.C. if preceded by RIVAL DF. A higher rate of Afesin is required if used alone. See the Afesin label for additional instructions.

TOMATOES

RIVAL DF may be applied before planting tomatoes to control many annual grasses and broadleaf weeds. RIVAL DF may also be applied as a tank mix with Sencor 500 F to control a wider range of broadleaf weeds. Sencor 500 may also be applied as a post-emergent application in tomatoes to control weed escapes. This application can be made if RIVAL DF was applied before planting. The following rates of application should be used.

	RATES Kilograms/Hectare (Pounds/Acre) Litres/Hectare (Quarts/Acre)		
	Soil Texture		
Treatment	Light	Medium	Heavy
Pre-Plant Incorporated - RIVAL DF	1.0 kg (0.9 lb)	1.3 kg (1.2 lb)	1.9 kg (1.7 lb)
Pre-Plant Incorporated - Sencor 500 F (tank-mix with RIVAL DF)	0.5-0.6 L (0.18-0.21 qt)	0.75-1.1 L (0.26-0.40 qt)	1.2-1.4 L (0.42-0.5 qt)
Post-Emergent - Sencor 500 F (applied alone)	0.85 L (0.3 qt)	1.1 L (0.4 qt)	1.2-1.4 L (0.42-0.5 qt)
Refer to the Sencor 500 F label for additional information and precautions.			

**LOOSE SILKY-BENTGRASS CONTROL IN FALL SEEDED CEREALS
(Wheat and Rye only)
GROWN IN ROTATION WITH FLUE-CURED TOBACCO.**

- C Apply RIVAL DF after seeding the cereal crop but before crop emergence.
- C Apply RIVAL DF at 0.7-1.0 kg/ha (0.6-0.9 lb/ac) Use the higher rate for heavier soil textures. Apply in a minimum of 100 L/ha (10 gal. per acre) of water.
- C Incorporate RIVAL DF to a shallow depth (2.5 - 5.0 cm) immediately after application (within 24 hours) by turning harrows over and harrowing twice at right angles. If field debris is a potential problem, harrow once only with harrows set for maximum penetration. ENSURE DEPTH OF INCORPORATION IS LESS THAN SEEDING DEPTH.

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BAG DISPOSAL:

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2. Make the empty bag unsuitable for further use.
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SENCOR is a registered TM of Bayer AG.
LEXONE is a registered TM of E.I. DuPont de Nemours and Company
(Incorporated)

For further information, call:

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