

11-MAR-1998

DUAL-CUSTOM (TM)
FOR CUSTOM APPLICATION USE ONLY
AGRICULTURAL
HERBICIDE

Net Contents: *

Emulsifiable Concentrate for Selective Weed Control

GUARANTEE:
metolachlor 720.0 g/L

READ THE LABEL AND ATTACHED PAMPHLET BEFORE USING

REGISTRATION NO.: 21200

PEST CONTROL PRODUCTS ACT

Novartis Crop Protection Canada Inc.
140 Research Lane
Research Park, University of Guelph
Guelph, ON
N1G 4Z3

55 L, 110 L, 500 L,
1100 L or BULK

LABEL FOR BULK CONTAINERS

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING
CALL 1-800-267-6351

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.

FIRST AID:

This product contains a petroleum distillate. If swallowed, do not induce vomiting. Obtain prompt medical attention or contact a poison control centre. If in eyes, flush with copious amounts of clear water for at least 15 minutes. Obtain medical attention or contact a poison control centre. If on skin, wash with soap and water. If irritation persists, see a doctor.

NOTE: Metolachlor may cause skin sensitization reactions in certain individuals.

PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN. Harmful if swallowed. Avoid contact with eyes or prolonged contact with skin. Avoid inhalation of vapours or spray mist. Do not contaminate food, feed, domestic or irrigation water supplies, lakes, streams and ponds. Do not graze livestock on treated crops; there are insufficient data to support such use.

PRODUCT DECONTAMINATION AND DISPOSAL

For information on the disposal of unused, unwanted product and the cleanup of spills, contact the Provincial Regulatory Agency or the manufacturer.

CONTAINER REFILLING OR DISPOSAL:

FOR REFILLABLE CONTAINERS:

Return the container to your CIBA-GEIGY retailer for refilling with Dual-Custom (TM) herbicide. DO NOT BREAK WIRE SEALS OR TAMPER WITH CLOSURES. Do not reuse the container. Do not contaminate the container.

(TM) Dual-Custom is a trademark of Novartis Crop Protection Canada Inc.

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AGRICULTURAL

HERBICIDE

Emulsifiable Concentrate for Selective Weed Control

GUARANTEE:
metolachlor 720.0 g/L

READ THE LABEL AND PAMPHLET BEFORE USING

REGISTRATION NO.: 21,200

PEST CONTROL PRODUCTS ACT

Novartis Crop Protection Canada Inc.
140 Research Lane
Research Park, University of Guelph
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N1G 4Z3

PAMPHLET

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CROP INFORMATION:

Dual-Custom provides selective weed control in:

Corn (hybrid, silage, seed, sweet)
Soybeans
Potatoes
Sugar beets
Rutabagas
Lima beans

WEEDS CONTROLLED:

American Nightshade*	Fall Panicum
Crabgrass (smooth, hairy)	Foxtail (green, yellow, giant)
Old Witchgrass	Barnyard Grass

Yellow Nutsedge
(Preplant incorporated only)

Extended periods of dry weather following application may result in reduced nutsedge control.

*Pre-emergent treatments sometimes give better control than preplant incorporated or post-emergent treatments.

TIMING OF APPLICATION:

EASTERN CANADA	PRAIRIES, INTERIOR B.C.	COASTAL B.C.
Preplant Incorporated or Pre-emergent or Early Post-emergent	Preplant Incorporated or Pre-emergent - if irrigated within 10 days	Pre-emergent

APPLICATION INFORMATION

PREPLANT INCORPORATION:

- Immediate incorporation is not necessary
- Incorporation equipment should include rolling or western harrows
- On sandy soils, heavy rainfall following an incorporated treatment may cause leaching of the herbicide.

INCORPORATION INSTRUCTIONS		
TYPE OF EQUIPMENT	MAXIMUM WORKING DEPTH	MINIMUM SPEED
"S"-Tine (Danish Cultivator)	10 cm	10 km/hr
"C"-Tine Cultivator with overlapping sweeps	10 cm	10 km/hr
Tandem disc (maximum 18 cm spacing between discs)	10 cm	6 km/hr
Power driven cultivator	5 cm	any
Mulch Master	5 cm	10 km/hr

Dual-Custom may be applied as an overall spray or as a band treatment. For band treatment, a suitable press wheel mounted ahead of the nozzle should be used for levelling the band. For band application, use proportionately less material.

PRE-EMERGENT APPLICATION:

- Apply evenly to a lump-free and firm seedbed.
- Rain is required within 10 days or a shallow cultivation or use of a rotary hoe is necessary.
- Minimize exposure of untreated soil when cultivating or fertilizing.

EARLY POST-EMERGENT APPLICATION:

- CORN ONLY
- Apply when corn is in the spike to 2-leaf stage and before weeds pass the 2-leaf stage.
- Some leaf burn may occur but yield will not be affected.
- DO NOT tank-mix Dual-Custom with fluid fertilizers, oils, oil concentrates or surfactants when applying post-emergent as severe crop injury will result.

CAUTION:

Do not apply to soils that contain less than 1% or more than 10% organic matter. Winter cereals may be planted 4 1/2 months following application. If drought conditions persist after either a preplant incorporated or pre-emergent application, annual grass control may not be adequate.

LIQUID FERTILIZERS:

Nitrogen solutions or complete liquid fertilizers may replace water as a carrier for pre-plant incorporated or pre-emergent application of Dual-Custom alone or in tank mixes in corn. Do not use fertilizer solutions for post-emergent applications. Always predetermine the compatibility of Dual-Custom or labelled Dual-Custom tank mixes with your water or liquid fertilizer carrier by mixing small proportional quantities in advance.

Note: When using a tank-mix of Dual-Custom and Bladex in Liquid Nitrogen, use only the Bladex Liquid formulation to prevent compatibility problems DO NOT USE BLADEX NINE-T.

DRY BULK GRANULAR FERTILIZERS:

Many dry bulk granular fertilizers may be impregnated with Dual-

Custom plus AAtrex (R) for preplant incorporated application to control weeds in corn.

Prepare the herbicide/fertilizer mixtures by using any commonly used dry bulk fertilizer blender. Spray herbicide mixture uniformly onto fertilizer. If the herbicide/fertilizer mixture is too wet, the use of a highly absorptive powder (generally less than 2% by weight) such as Microcel E, diatomaceous earth or finely powdered clay is recommended.

For best results, apply Dual-Custom or Dual-Custom plus AAtrex/fertilizer mixtures uniformly to the soil with properly calibrated equipment immediately after blending and incorporate according to label directions.

Note: Apply a minimum of 225 kg per hectare of dry granular fertilizer impregnated with recommended rates of Dual-Custom alone or Dual-Custom tank mixtures.

Do not impregnate Dual-Custom alone or with AAtrex onto nitrate fertilizers, superphosphates, or limestone.

MIXING AND SPRAYING INSTRUCTIONS:

- . Spray Pressure - 200 - 300 kPa
 - . Spray Volume - minimum 170 litres per hectare.
 - . Keep bypass line at bottom of tank to minimize foaming.
 - . Use 16 mesh suction screens, 50 mesh elsewhere on sprayer.
1. Fill sprayer 1/2 full of carrier. Start gentle agitation.
 2. Add wettable powder or WDG tank-mix partner, if applicable. Slurry with water first if using liquid fertilizers as the carrier.
 3. Add liquid flowable tank-mix partner, if applicable, and agitate thoroughly.
 4. Fill tank 9/10 full of carrier and add Dual-Custom and other emulsifiable concentrate or solution tank-mix partners.
 5. Top off tank with carrier, maintain agitation and spray.
 6. Do not let stand without agitation.
 7. Sprayer equipment should be thoroughly flushed with clean water and drained before and after use of Dual-Custom and

its tank mixes.

CORN

TANK MIXTURES (EASTERN CANADA ONLY):

WEEDS CONTROLLED	TIMING	RATE/HA DUAL-CUSTOM*	RATE PER HECTARE/TANK MIX PARTNER**
Nutsedge, Annual Grasses and Broadleaf Weeds	Preplant Incorporated	2.7 - 3.7 L	+ 1.1-1.7 kg AAtrex(R) Nine-0 (R) or 2.1-3.1 L AAtrex Liquid 480 or 2.0-3.0 kg Bladex(R) Nine-T(R) or 3.75-5.5 L Bladex Liquid
Annual Grasses and Broadleaf Weeds	Pre-emergent	2.7 - 3.7 L	+ 1.1-1.7 kg AAtrex Nine-0 or 2.1-3.1 L AAtrex Liquid 480 or 2.0-2.5 kg Bladex Nine-T or 3.75-4.75 L Bladex Liquid or 1.25 L Banvel(R) 480 (See NOTE below)
Annual Grasses and Broadleaf Weeds	Early Post-Emergent	2.7 - 3.7 L	+ 1.1-1.7 kg AAtrex Nine-0 or 2.1 -3.1 L AAtrex Liquid 480

NOTE: Banvel 480 at 1.25 L/ha may be tank mixed with any of the above Dual-Custom + AAtrex Liquid 480 or AAtrex Nine-0 pre-emergent combinations for a 3-way tank mix. Do not apply to SWEET CORN. For use in Eastern Canada only.

TANK MIXTURES (WESTERN CANADA ONLY):

WEEDS CONTROLLED	TIMING	RATE/HA DUAL-CUSTOM*	RATE PER HECTARE/TANK MIX PARTNER**
Green and Yellow Foxtail, Barnyard Grass and Broadleaf Weeds	Preplant Incorporated	2.7 - 3.7 L	+ 1.1-1.7 kg AAtrex Nine-0 or 2.1-3.1 L AAtrex Liquid 480 or 4.25-5.0 L Bladex Liquid or 2.25-2.75 kg Bladex Nine-T
Green and Yellow Foxtail, Barnyard Grass and Broadleaf Weeds	Pre-emergent with irrigation	2.7 - 3.7 L	+ 1.1-1.7 kg AAtrex Nine-0 or 2.1-3.1 L AAtrex Liquid 480 or 3.75-4.75 L Bladex Liquid or 2.0-2.5 kg Bladex Nine-T

* Use the higher rate of Dual-Custom for heavier weed problems.

** Consult the label of the products to be tank mixed with Dual-Custom for specific instructions regarding soil-type variations and other restrictions.

SOYBEANS

TANK MIXTURES:

WEEDS CONTROLLED	TIMING	RATE/HA DUAL-CUSTOM*	RATE PER HECTARE/TANK MIX PARTNER**
Nutsedge, Annual Grasses and Broadleaf Weeds including Nightshade***	Preplant Incorporated	2.3 - 3.7 L	+ 550 - 750 g Sencor(R) 75DF or 850 mL - 2.25L Sencor 500F or 540 - 640 g Lexone(R) DF

Annual Grasses and Broadleaf Weeds including Nightshade***	Pre-emergent	2.3 - 3.7 L	+ 850 mL-2.25 L Sencor 500F or 550-750 g Sencor 75DF or 540-960 g Lexone DF or 1.6-2.5 L Afolan(R) F or 1.88 - 2.29 L Lorox(R) L or 1.75-2.25 kg Lorox DF or 3.0-4.0 L Patoran (R) 400SC or 5.5-8.5 L Afesin(R) 200EC
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* Use the higher rate of Dual-Custom for heavier weed problems.

** Consult the label of the product to be tank mixed with Dual-Custom for specific instructions regarding soil-type variations and other restrictions.

*** For optimum nightshade control, use higher rate of Dual-Custom applied pre-emergently and choose a tank-mix partner which is also registered for the control of nightshade.

CAUTION: Soybeans should be seeded at least 4 cm deep or crop injury may result. Do not apply Dual-Custom if soybeans have emerged. Do not apply Dual-Custom to the variety Vansoy.

POTATOES

WEEDS CONTROLLED	TIMING	RATE/HA DUAL-CUSTOM*	RATE PER HECTARE/TANK MIX PARTNER**
Nutsedge, Annual Grasses and Broadleaf Weeds	Preplant Incorporated	2.7 - 3.7 L	+ 750 g - 1.5 kg Sencor 75DF or 1.1 - 2.25 L Sencor 500F or 830 g - 1.2 kg Lexone DF

Annual Grasses and Broadleaf Weeds	Pre-emergent	2.7 - 3.7 L	+ 1.6 - 2.5 L Afolan F or 750 g-1.5 kg Sencor 75DF or 1.1 - 2.25 L Sencor 500F or 830 g - 1.2 kg Lexone DF or 1.88 - 2.29 L Lorox L or 1.75 - 2.25 kg Lorox DF or 3.0 - 4.0 L Patoran 400SC or 5.5 - 8.5 L Afesin 200EC
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- * Use the higher rate of Dual-Custom for heavier weed problems.
- ** Consult the label of the product to be tank mixed with Dual-Custom for specific instructions regarding soil-type variations and other restrictions.

CAUTION: Do not apply Dual-Custom at ground crack or if potatoes have emerged. Do not use on the variety Superior.

SUGAR BEETS

TIMING OF APPLICATION:

Dual-Custom can be applied as:

1. a preplant incorporated spray in tank mix combination with Pyramin(R), or,
2. a pre-emergent spray in tank mix combination with Pyramin, or,
3. a preplant incorporated spray, followed by a pre-emergent spray of Pyramin.

RATE PER HECTARE DUAL-CUSTOM*	RATE PER HECTARE/TANK MIX PARTNER**
2.7 - 3.7 L	8.25 - 10.25 L Pyramin FL 430 g/L

- * Use the higher rate of Dual-Custom for heavier weed

problems.

- ** Consult the Pyramin FL label for specific instructions regarding soil-type variations and other restrictions.

RUTABAGAS (EASTERN CANADA ONLY)

TIMING OF APPLICATION:

Dual-Custom can be applied either as:

1. a preplant incorporated spray, or,
2. a pre-emergent spray

Rate per Hectare Dual-Custom*
2.7 - 3.7 L

- * Use the higher rate of Dual-Custom for heavier weed problems.

To control nutsedge, Dual-Custom must be applied as a preplant incorporated spray.

(TM) Dual-Custom is a trademark of NOVARTIS CROP PROTECTION Canada Inc.

(R) AAtrex, Nine-0, Nine-T, Dual and Patoran are registered trademarks of NOVARTIS Crop Protection Canada Inc.

(R) Sencor is a registered trademark of Bayer AG.

(R) Lorox and Lexone are registered trademarks of E.I. duPont de Nemours and Company

(R) Afolan and Afesin are registered trademarks of Hoechst AG.

(R) Bladex is a registered trademark of Shell Canada Ltd.

DuPont Canada Inc. is a registered user.

(R) Banvel and Pyramin are registered trademarks of BASF Canada Inc.

Consult the product labels to be tank mixed or split applied with Dual-Custom for specific crop recommendations.

ADHERE TO THESE PRODUCT LABELS FOR PRECAUTIONS, WARNINGS, RESTRICTIONS, TANK MIXING AND SPRAYING INSTRUCTIONS, ROTATIONAL

CROPS AND DETAILED DIRECTIONS FOR USE REGARDING DOSAGE VARIATIONS
ACCORDING TO SOIL TYPE.

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