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AVENGE(R) 640

Difenzoquat Soluble Powder Postemergence Wild Oat Herbicide

For control of wild oats in SPRING WHEAT+, BARLEY, TRITICALE++, WINTER WHEAT++, FALL RYE++, CANARY GRASS AND UNDERSEEDED FORAGES++

+(Neepawa, Glenlea, Selkirk, Chester, Macoun, Canuck, Benito, Columbus, Fielder, Leader, Katepwa, Conway, Oslo, Kenyon, Lancer, Genesis and HY 320 varieties only) DURUM WHEAT (Macoun) ++ (For specific varieties see the pamphlet)

AGRICULTURAL

Net Contents: 8.65 kg (10 packs of 865 g)

DO NOT SELL INDIVIDUAL SOLUBLE BAGS SEPARATELY

Guarantee: difenzoquat...640 cation/kg (PRESENT AS METHYL SULFATE)

REGISTRATION No. 22016 PEST CONTROL PRODUCTS ACT

DANGER POISON

CORROSIVE TO EYES

In case of emergency endangering life or property involving this product, call collect day or night 416-356-8310

KEEP OUT OF REACH OF CHILDREN

READ THE LABEL BEFORE USING

CYANAMID CANADA INC. Markham, Ontario L3R 6E6

*AVENGE is a registered trade mark of Cyanamid Canada Inc.

BEFORE USING ANY PESTICIDE READ THE LABEL

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN.

HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN.

CORROSIVE CAUSES EYE DAMAGE AND SKIN IRRITATION.

Avoid contact with eyes, skin and clothing. Wear goggles or face shield and rubber gloves when handling. Wash thoroughly with soap and water after handling. Do not contaminate food and feed products.

FIRST-AID INSTRUCTIONS:

If swallowed: drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get medical attention.

In case of contact: immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before re-use.

TOXICOLOGICAL INFORMATION:

If swallowed, evacuate stomach immediately. Symptoms of poisoning - lethargy, diuresis, diarrhea and prostration.

STORAGE AND DISPOSAL:

Do not contaminate water, food, or feed by storage or disposal.

Make the empty box unsuitable for further use. Dispose of the box in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the regional office of Conservation and Protection, Environment Canada.

DIRECTIONS FOR USE:

STAGE OF WILD OAT GROWTH:

AVENGE herbicide should give successful wild oat control during an extended period from the 3 - 4 leaf stage to the 5th leaf stage.

Early Treatments: AVENGE herbicide should be applied when a majority of the wild oats are in the 3 - 4 leaf stage to

minimize early wild oat competition and provide maximum yield increases. AVENGE herbicide will not control wild oat plants that are in the 1 - 2 leaf stage.

Later Treatments: AVENGE herbicide, applied at the 4 - 5 leaf stage will give very good control but yield increases may be reduced.

NOTE: Maximum wild oat control and yield increase of crop are obtained under conditions of strong crop competition. Early treatments will promote stronger crop competition than later treatments. For best results, AVENGE herbicide should be applied when the crop and wild oats are growing vigorously.

> AVENGE herbicide controls wild oats by stopping their growth. Obvious signs of plant death may not be seen for 3 to 4 weeks but the competitive effect of these plants will have been removed.

CROPS:

- SPRING WHEAT Neepawa, Glenlea, Selkirk, Chester, Macoun, Canuck, Benito, Columbus, Fielder, Leader, Katepwa, Conway, Oslo, Kenyon, Lancer, Genesis and HY320 varieties only.
- DURUM WHEAT Macoun.
- BARLEY All varieties.
- TRITICALE Welsh, Carman.
- WINTER WHEAT Norstar, Sundance
- FALL RYE Cougar, Puma, Frontier, Rymin, Kodiak

CANARY GRASS Seed used as feed for song birds

FORAGESAlfalfa, Red clover, Sweet clover, BirdsfootUNDERSEEDEDtrefoil, Creeping Red fescue, Red fescue, MeadowTO BARLEYfescue, Bromegrass, Timothy, Crested wheatgrass,OR WHEATOrchardgrass, Russian wildrye grass, Reedcanarygrass, Kentucky bluegrass.

NOTE: Do not treat forages without a companion crop. DO NOT treat the wheat and barley companion crops and the underseeded forages if the forages are to be grazed or harvested for feed during the year of seeding.

Rotation to other crops can be made the following season.

AVENGE* herbicide may shorten wheat straw slightly but this does not affect the crop yield.

AERIAL APPLICATION:

Application	Rates
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WILD OAT INFESTATION	TOTAL WATER VOLUME	AREA TREATED	AMOUNT+ OF SURFACTANT REQUIRED
201 or more wild oat plants per sq. m (850 g active/ha)	136 L - 335 L	6.7 ha*	0.8 L - 2.0 L
1-200 wild oat plants per sq.m (700 g active/ha)	160 L - 400 L	7.9 ha**	0.96 L - 2.4 L

Note: * 1 soluble bag treats .67 ha (1.68 acres) 1 box (10 soluble bags) treats 6.7 ha (16.8 acres)

** 1 soluble bag treats .79 ha (1.98 acres) 1 box (10 soluble bags) treats 7.9 ha (19.8 acres)

+0.6% (v/v) Agral 90 or Ag-Surf SURFACTANT MUST BE ADDED.

APPLY AVENGE herbicide at the recommended rates in 20 - 50 litres water per hectare.

DO NOT apply when the wind velocity exceeds 15 km/h. Application should be made as close to the growing crop as feasible.

DO NOT permit spray drift to contaminate crops other than those being sprayed. It is recommended that a flagman be located at each end of the field or that an automatic mechanical flagging unit be attached to the aircraft to ensure uniform aerial application and to avoid overlapping.

MOST infested fields have more than 200 wild oat plants per square metre and require the 850 gm ai/ha rate. The lower rates may be adequate in following years when the wild oat population has been reduced.

DO NOT make more than one application of AVENGE per growing season.

GROUND APPLICATION:

Application Rates

WILD OAT INFESTATION	TOTAL WATER VOLUME	AREA TREATED	AMOUNT+ OF SURFACTANT REQUIRED
201 or more wild oat plants per sq. m (850 g active/ha)	640 L	6.7 ha*	4.0 L Agral 90 Ag-Surf
1-200 wild oat plants per sq. m (700 g active)	800 L	7.9 ha**	4.8 L Agral 90 Ag-Surf

NOTE: * 1 soluble bag treats .67 ha (1.68 acres) 1 box (10 soluble bags) treats 6.7 ha (16.8 acres)

** 1 soluble bag treats .79 acres (1.98 acres per box)
1 box (10 soluble bags) treats 7.9 ha (19.8 acres)

+ 0.6% (v/v) Agral 90 or Ag-Surf SURFACTANT MUST BE ADDED.

VOLUME of spray per hectare: A uniform spray of 100 litres per hectare which thoroughly covers the wild oat plants must be used. See chart for amount of water to added when 20 kg of AVENGE herbicide is being used. See chart for tips and tip pressures.

DO NOT apply when the wind velocity exceeds 15 km/h. Application should be made as close to the growing crop as feasible.

DO NOT permit spray drift to contaminate crops other than those being sprayed.

MOST infested fields have more than 200 wild oat plants per square metre and require the 850 gm ai/ha rate. The lower rates may be adequate in following years when the wild oat population has been reduced.

DO NOT make more than one application of AVENGE per growing season.

Sprayer Information

TIPS	TRACTOR	TIP	DIRECTION
For 100 L rate	Speed	PRESSURE	of spray
Tee Jet 6502 or	8 km/h	For all tips	For all tips
8002		275 kPa	45 degrees
Tee Jet 8001 LP	6.5 km/h		forward
Delavan LF 2 65 or 80 degrees. Delavan D2 Flood Jet TK 2	8 km/h 8 km/h 8 km/h		

Flat fan spray tips are recommended over cone tips.

Pressure at nozzle tips should be 275 kPa, lower pressures may result in poor control.

Tilt spray boom forward 45 degrees if flat fan nozzle tips are used.

Wash sprayer thoroughly after spraying has been completed.

MIXING

Fill the spray tank 3/4 full with clean, filtered water then add required quantity of AVENGE and surfactant. Add additional water required. Circulate the spray mixture in the tank for 5 minutes before spraying begins to ensure thorough mixing.

FOAMING

AVENGE herbicide may cause foaming in certain types of water. If this occurs, agitation should be kept to a minimum and a silicone anti-foaming agent added.

WARNINGS

- Use ONLY on the crop varieties listed in this pamphlet. (See DIRECTIONS FOR USE).
- DO NOT apply after 6-leaf stage of barley, wheat and canary grass. Under cool weather conditions, or under high humidity the crop may show some initial burning on lower leaves, however, there will be no adverse effects on crop maturity or yield.
- DO NOT apply AVENGE if the crop is under extreme drought stress or is showing effects of excessive moisture (poor drainage).
- DO NOT make more than one application of AVENGE per growing season.
- DO NOT allow livestock to graze treated cereal crops within
 8 weeks of treatment. Straw from treated fields can be fed

to livestock.

- DO NOT treat the wheat and barley companion crops and underseeded forages if the forages are to be grazed or harvested for feed during the year of seeding.
- As AVENGE herbicide is highly water soluble, do not spray if crop plants are wet with heavy dew or rain.
- DO NOT spray if rain is forecast within 6 hours.
- DO NOT spray in winds over 15 kilometres per hour or reduced wild oat control will result. DO NOT let spray drift to adjacent fields.
- Keep out of lakes, streams and ponds.
- DO NOT spray if freezing temperatures are forecast.
- DO NOT use felt-type filter elements because they cause pressure restrictions and cannot be easily cleaned.
- Use a 50 mesh stainless screen element in the main "line strainer" unit.
- Use a 50 mesh screen on nozzle strainers when applying 100 litres of solution per hectare.

HOW TO USE AVENGE WILD OAT HERBICIDE PLUS BROADLEAF HERBICIDES.

- Select the proper AVENGE herbicide application rate as described in the DIRECTIONS FOR USE section.
- DO NOT apply AVENGE tank-mix combinations under stress conditions.
- In order to assure optimum broadleaf weed control, follow label recommendations of the broadleaf herbicides used with AVENGE.
- When tank mixing broadleaf herbicides use only on barley, canary grass and wheat, and apply only those listed below following the mixing instructions.
- Read and observe all precautions, use directions and restrictions on the label of the product to be tank mixed.

MCPA ester

Bromoxynil (TORCH(1)) (PARDNER(1)) DO NOT apply by air 2,4-D ester. DO NOT apply to Canary grass.

MCPA ester plus bromoxynil (BROMINAL M(1); BUCTRIL M(1); BROMOX 450(1); BROMOX 720 M(1); SABRE(1)).

2,4-DB (EMBUTOX E(1); COBUTOX 400(2); 2,4-D Butyric) DO NOT apply to Canary grass.

ESTAPROP(1), Diphenoprop 600(3) wheat and barley only. DO NOT apply when underseeded to legumes.

GLEAN(4) Use AVENGE 640 at 850 g ai/ha plus GLEAN, ALLY(4) or REFINE(4) as a tank-mix only on wheat and barley grown ALLY in soils with a pH of 7.5 or lower. Precisely follow all use directions regarding crop rotation on the tank-REFINE mix partner label.

DO NOT apply the tank-mix to Canary grass.

Make sure GLEAN, ALLY or REFINE is thoroughly dissolved in the water before adding AVENGE herbicide. On repeat tank-loads, if any tank-mix spray solution remains in the tank, prepare a GLEAN/water, ALLY/water or REFINE/water slurry and add it to the required water volume in the spray tank prior to adding AVENGE.

DO NOT apply these tank-mixes by aircraft.

- Apply the tank-mix combination at the rate of 100 litres spray per hectare by ground equipment or 20 to 50 litres per hectare by aircraft.

CAUTION:

DO NOT tank-mix AVENGE herbicide with any formulation containing MCPA amine, 2,4-D amine, dicamba (BANVEL(5)) or TARGET(6) or any herbicide other than those listed above as crop injury or reduced weed control may result.

DO NOT tank-mix AVENGE with ANY broadleaf herbicide, except 2,4-DB, for use on Underseeded Forages.

MIXING INSTRUCTIONS FOR AVENGE WITH BROADLEAF HERBICIDES

- 1. Fill tank one-half to three-quarters full with clean water and start agitation.
- 2. Add AVENGE 640 soluble powder bags while agitating.
- 3. When AVENGE soluble powder has been completely dissolved, add the broadleaf herbicide. Note: any dry flowable broadleaf herbicide such as GLEAN or ALLY must be added to the spray tank and dissolved BEFORE adding AVENGE soluble powder.
- 4. Continue agitation until spraying is completed.

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.

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.

- 1. Registered Trademark of Rhone Poulenc
- 2. Registered Trademark of Interprovincial Co-operatives Ltd.
- 3. Registered Trademark of United Agri Products
- 4. Registered Trademark of E.I. Du Pont de Nemours and Co.
- 5. Registered Trademark of Sandoz.
- 6. Registered Trademark of Ciba-Geigy Canada Ltd.

A RECOMMENDED SURFACTANT MUST BE ADDED.

The amount of surfactant required varies with water volume applied per hectare. Please refer to the label.

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