

**AVENGE<sup>R</sup> WILD OAT HERBICIDE**

**FOR USE IN BARLEY AND WHEAT**

**Active Ingredient:**

difenzoquat (1,2-dimethyl-3,5-dimethyl-3,5-diphenyl-1H-pyrazolium methyl sulfate).....	31.2%
Inert Ingredients.....	<u>68.8%</u>

Total	100.00%
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(1 gallon contains 2 lbs. of difenzoquat cation)

EPA Reg. No. 241-266

EPA Est. No. 407-MN-1

<4.0 mm>  
<8.5 mm>

**KEEP OUT OF REACH OF CHILDREN  
DANGER! PELIGRO!**

*241-266*

**PRECAUCION AL USUARIO:** Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

**STATEMENT OF PRACTICAL TREATMENT**

- If in eyes: Hold eyelids open and flush with a steady, gently stream of water for 15 minutes. Get medical attention.
- If swallowed: Drink promptly a large quantity of milk, egg white, gelatin solution, if these are not available, large quantities of water. Avoid alcohol.
- If on skin: Wash with plenty of soap and water. Get medical attention.

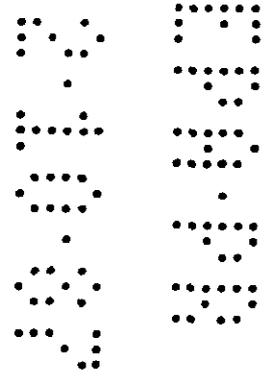
**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

See Side Panel for Precautionary Statements

Net Contents: 30 gallons	22905-08
113.55 liters	

D43  
(1/87)

(R) Registered Trademark of American Cyanamid



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS  
DANGER!**

**CORROSIVE: CAUSES IRREVERSIBLE EYE DAMAGE  
HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN**

Do not get in eyes, on skin, or on clothing.  
Wear goggles or face shield and rubber gloves when handling.  
Wash thoroughly with soap and water after handling.  
Remove contaminated clothing and wash before reuse.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water or wetlands. Do not apply when weather conditions favor run-off and/or drift from target area. Do not contaminate water by cleaning equipment or disposal of wastes.

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**STORAGE AND DISPOSAL**

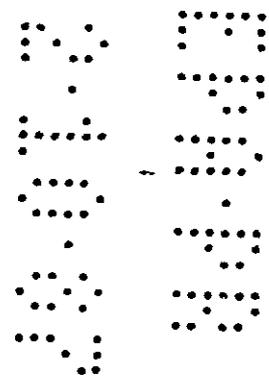
DO NOT store below 32°F (0°C). Ice will form in the container at 15°F (-10°C). If ice occurs from prolonged storage at temperatures 15°F (-10° or below, place container at room temperature until ice melts.

**PROHIBITIONS**

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**PESTICIDE DISPOSAL**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.



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**CONTAINER DISPOSAL**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**GENERAL**

Consult federal, state, or local authorities for approved alternative procedures.

**DISCLAIMER**

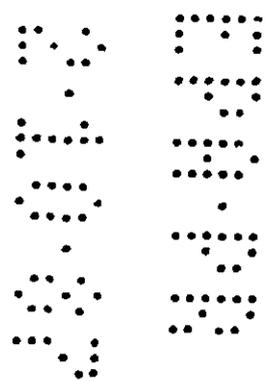
The label instructions for the use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the use or application of the product contrary to label instructions all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages and shall not include consequential commercial damages such as loss of profits or values or any other special or indirect damages.

American Cyanamid Company makes no other express or implied warranty, including any other express or implied warranty of FITNESS or of MERCHANTABILITY.

✓



**GENERAL INFORMATION**

In case of an emergency endangering life or property involving this product, call collect, day or night, Area Code 201-835-3100.

AVENGE is a selective herbicide for the postemergence control of wild oats in barley and wheat. See the section DIRECTIONS FOR USE for varietal restrictions.

If broadleaf weeds must also be controlled in these crops. AVENGE may be tank-mixed with MCPA amine or ester, bromoxynil, MCPA plus bromoxynil, 2,4-D amine or ester, Glean or Ally. AVENGE alone or in combination can be applied postemergence by ground equipment or aircraft.

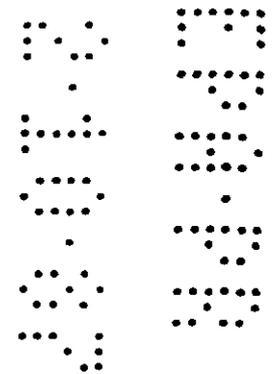
Maximum control of wild oats in barley and wheat with AVENGE alone or in combination is obtained when temperature, moisture, fertility and cultural practices provide favorable conditions for plant growth. When applied under poor conditions for plant growth such as cold/wet or hot/dry weather or low soil fertility. AVENGE can produce yellowing or slight tip burn of barley or wheat. However, recovery is rapid when good growth conditions return. A slight reduction of yield may result under conditions described above.



Observe all cautions and limitations on this label and the labels of products used in tank mixtures with AVENGE. The use of AVENGE not consistent with this label can result in injury to crops, animals or persons. Keep containers closed to avoid spills and contamination.

**EQUIPMENT APPLICATION INSTRUCTIONS**

The spray equipment must be clean and properly calibrated before treatments are applied. For best results, use flat fan nozzles, at pressures of 20 to 40 psi to achieve uniform spray distribution and minimize drift. DO NOT use flood jet nozzles. Keep the by-pass line on or near the bottom of the tank to minimize foaming. In ground applications, check nozzles for even distribution of spray droplets. In aerial applications, it is recommended that a flagman be located at each end of the field, or an automatic mechanical flagging unit be attached to the aircraft to ensure uniform aerial application and to avoid overlapping and possible crop injury.



**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

This label must be in the possession of the user at the time of pesticide application.

WHERE TO USE AVENGE: AVENGE alone or in combination can be applied to:

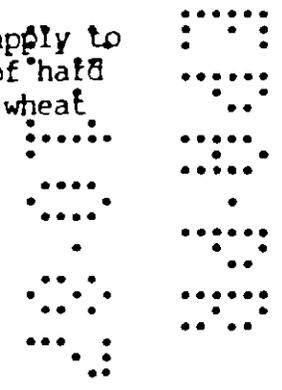
BARLEY: All Varieties

WHEAT: SEE TABLE BELOW

WHEAT TYPE	YES	NO
Fall and Winter Seeded	All EXCEPT	Borah, WS 1809, WS 1877, WS 1859, Klasic, Probrand 771, Tadinia, and Mexican durums
Soft-white Spring Seeded	All	
Spring Seeded durums	All EXCEPT	Edmore, Kyle, Laker, Lakota, Vic, Wakocma, Wascona, Westbred 803, and Westbred 881

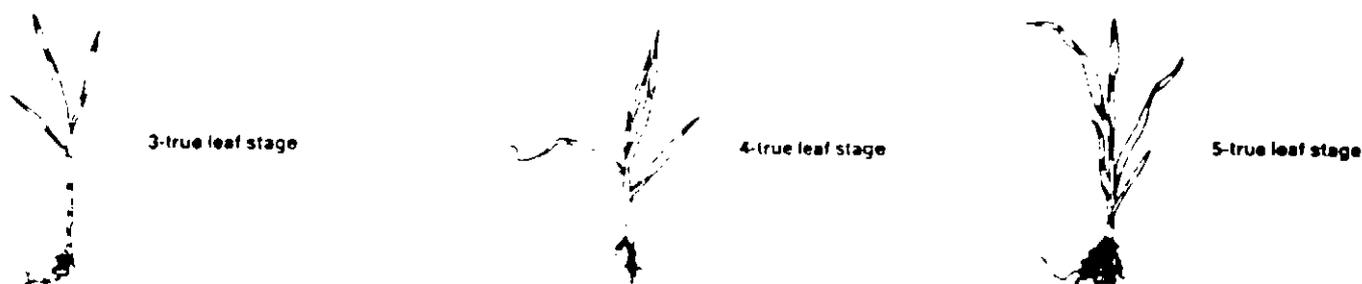
Hard Red Spring Seeded  
 Apex, Benito, Buckshot, Butte, Canuck, Centa, Chester, Columbus, Coteau, Courtney, Era, Erik, Fortuna, Glenlea, Glennman, HY320, Katepwa, Kitt, Leader, McKay, Marberg, Marshall, Newana, Neepawa, NK(PB) 751 Norak, Norana, Olaf, Olso, Pioneer 2369, Pondera, Probrand 711, Probrand 715, Prodax, Selkirk, Solar, Stoa, Success, Victory, Walera, and Wheaton

DO NOT apply to varieties of hard red spring wheat not listed.



**WHEN TO USE AVENGE:** AVENGE or AVENGE tank-mix combinations are to be applied when the majority of wild oat plants are in the 3- to 5-true leaf stage of growth (tillering). The timing of AVENGE application to wild oats frequently coincides with barley in the 2- to 7-leaf stage, spring-seeded wheat in the 5- to 6-leaf stage, and fall-seeded wheat in the 4-leaf to tillered stage of growth. To achieve maximum control, the growth stage of wild oats in each field to be treated should be examined frequently to determine the 3- to 5-leaf stage (tillering) for proper timing of AVENGE application. Density of wild oats per square foot should also be determined to select the correct AVENGE application rate.

AVENGE APPLICATION



DO NOT apply AVENGE when the flagleaf is exposed or crop injury may occur. DO NOT apply AVENGE if rain is predicted within 6 hours. DO NOT spray AVENGE when freezing temperatures are forecast or when plants are wet with dew or rain. For spray volumes in excess of 10 gallons of spray per acre (gpa) the addition of a surfactant is required. Use any non-ionic surfactant of at least 80% active ingredient cleared for application to growing crops at a rate of 0.6 fluid ounces for each gallon of spray in excess of 10 gpa.

Example: For a 15 gpa spray, add 3 fluid ounces of non-ionic surfactant (0.6 ounce for each gallon of water over 10 gpa). Use only recommended surfactants cleared for application to growing crops. DO NOT apply AVENGE or AVENGE tank-mix combinations under severe conditions for plant growth such as drought, extreme temperature fluctuation, low soil fertility and plant disease.

AVENGE Rate Recommendation Table

Wild Oat Population	Wild Oat Density Plants Per Square Foot	AVENGE Rate Per Acre (gpa)
Low	1-10	2 1/2
Moderate	11-25	3
High	more than 25	4

### MIXING INSTRUCTIONS

#### HOW TO MIX AVENGE ALONE

1. Fill tank one-half to three-quarters full with clean water and start agitation.
2. When using AVENGE alone, add AVENGE and surfactant to the partially filled tank while agitating. When AVENGE is thoroughly mixed, fill remainder of tank with water while agitating.
3. Allow mixture to agitate and recycle for at least five minutes before spraying.
4. Agitation must be continued until spraying is complete.

#### HOW TO MIX AVENGE PLUS BROADLEAF HERBICIDES

1. Fill tank one-half to three-quarters full with clean water and start agitation.
2. When using AVENGE with a broadleaf herbicide, add the broadleaf herbicide first to the partially filled tank while agitating.
3. When the broadleaf herbicide is thoroughly mixed, add the AVENGE to the tank, then complete filling the tank with water while agitating.
4. Allow mixture to agitate and recycle for at least five minutes before spraying.
5. Agitation must be continued until spraying is completed.

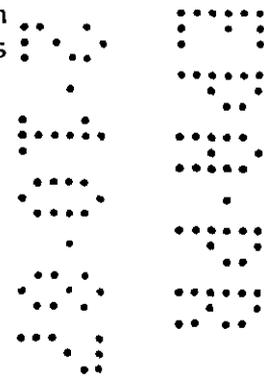
#### HOW TO USE AVENGE ALONE

If wild oats are growing vigorously, select the proper application rate from the AVENGE Recommendation Table that corresponds to the population of wild oat plants per square foot in the field to be treated.

Apply AVENGE in 5 to 20 gallons of water per acre by ground equipment or 3 to 10 gallons of water per acre by aircraft. DO NOT let spray drift onto adjacent crops.

#### HOW TO USE AVENGE PLUS BROADLEAF HERBICIDES

Select the proper AVENGE application rate as described in the AVENGE Recommendation Table, 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. Follow the Mixing Instructions and use the herbicide as follows:



2-4-7

AVENGE PLUS MCPA<sup>1/</sup>: Use only amine or ester formulations of MCPA at the rate of 0.25 to 1.0 lb acid equivalent per acre. Apply in 5 to 20\* gallons per acre by ground equipment or 5 to 10 gallons per acre by aircraft.

AVENGE PLUS BROMOXYNIL<sup>2/</sup>: Use bromoxynil at the rate of 0.375 to 0.5 lb. active ingredient per acre. Apply in 10 to 20\* gallons per acre by ground equipment or 5 to 10 gallons per acre by aircraft.

AVENGE PLUS MCPA PLUS BROMOXYNIL<sup>3/</sup>: Use MCPA at the rate of 0.5 lb. acid equivalent per acre plus bromoxynil at 0.25 to 0.5 lb. active ingredient per acre. Apply in 10 to 20\* gallons per acre by ground equipment or 5 to 10 gallons per acre by aircraft.

AVENGE PLUS 2,4-D<sup>4/</sup>: Use only amine or ester formulations of 2,4-D at the rate of 0.25 to 0.75 lb. acid equivalent per acre. Apply in 5 to 20\* gallons of spray per acre by ground equipment and 5 to 10 gallons per acre by aircraft. Apply tank-mix after crops are 6 inches tall, after the crops are well tillered, or after the bloom stage. DO NOT apply in seedling stage or early boot to dough stage.

AVENGE PLUS GLEAN<sup>5/</sup>: Use Glean at the rate of 1/6 to 1/2 ounce of the 75% dry flowable formulation per acre. Apply in 5 to 20\* gallons of spray per acre by ground equipment and 3 to 10 gallons per acre by aircraft. Prior to use of Glean, determine soil pH by laboratory analysis using a 1:1 soil:water suspension. DO NOT use Glean on soils with a pH greater than 7.5. DO NOT exceed 1.2 oz/acre/year on soils with a pH of 6.5 or lower, or 1/3 oz/acre/year on soils with a pH of 6.6 to 7.5. Follow the most restrictive precautions, directions, and recropping/rotation limitations that appear on both products labels. ✓

AVENGE PLUS ALLY<sup>6/</sup>: Use Ally at the rate of 1/10 ounce of the 60% dry flowable formulation per acre. Apply in 3 to 20\* gallons of spray per acre by ground equipment and 3 to 10 gallons of spray per acre by aircraft. DO NOT use Ally on highly calcareous soils (soil pH of greater than 8.0). DO NOT apply more than 1/10 ounce per acre per year. DO NOT apply to irrigated land where tail water will be used to irrigate other crop land. Follow the most restrictive precautions, directions, and recropping/rotation limitations that appear on both product labels.

NOTE: DO NOT MAKE MORE THAN ONE APPLICATION OF AVENGE PER GROWING SEASON. DO NOT GRAZE TREATED FIELDS OR CUT TREATED FORAGE FOR SILAGE OR HAY. BARLEY OR WHEAT CAN BE REPLANTED IF LOSS OF CROP OCCURS. BARLEY AND WHEAT GRAIN AND STRAW FROM TREATED FIELDS CAN BE FED TO LIVESTOCK. ROTATION TO OTHER CROPS CAN BE MADE THE FOLLOWING YEAR.

\*When applying more than 10 gallons of spray per acre, follow instructions relating to the addition of surfactant described above.

<sup>1</sup>The amine and ester formulations of MCPA are sold under various names. Consult manufacturer's label recommendation before use.

<sup>2</sup>Bromoxynil is sold under various brand names. Consult manufacturer's label recommendation before use.

<sup>3</sup>There are several brand names for MCPA + bromoxynil. Consult manufacturer's label recommendation before use.

<sup>4</sup>The amine and ester formulations of 2,4-D are sold under various brand names. Consult manufacturer's label recommendation before use. ✓

<sup>5</sup>Glean is a trademark of E.I. duPont de Nemours and Company, Inc.

<sup>6</sup>Ally is a trademark of E. I. du Pont de Nemours and Company, Inc.

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