

AVENGE



AVENGE®
Wild Oat Herbicide
EPA Reg. No. 241-250-AA
Edition D-46

Page 1 1. Deletion of the phrase 'DO NOT STORE BELOW 40°F (5°C)' and replacement on the bottom of page 5.

2. First Aid Statement:

In Case of Contact, immediately flush eyes with plenty of water for at least 5 minutes.

The underlined phrase has been deleted per Subpart H of the FIFRA guidelines.

3. Spanish Warning: The Words "ENGLISH TRANSLATION" and "DANGER!" have been added.

4. The D-45 has been changed to D-46.

Page 2 5. GENERAL INFORMATION Section: The first paragraph has been revised and the text now refers to DIRECTIONS FOR USE section.

6. DIRECTIONS FOR USE: WHERE TO USE AVENGE Section has been modified to include all soft white spring seeded wheat varieties, and a notice that injury can occur on the spring seeded durum wheat varieties Vic and Edmore, and the following additional wheat varieties: Aim, Alex, Bonanza, Westbred 906-R, WS-1977, WS1859, Klassic(1817), Pro-Brand 771, and Yecora-Rojo.

Page 3 7. Addition of 3 drawings showing the 3, 4, and 5 true leaf stage.

8. New placement for the notes directly beneath these drawings: "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." These statements formerly appeared on page 5 of AVENGE label D-45.

9. Note beneath AVENGE Rate Recommendation Table: The last sentence is new. "Use only recommended surfactants."

10. Footnote 1/ has been expanded.
The D-45 text formerly read:
Under stress conditions of plant growth, apply AVENGE alone at the rate of 7 pints per acre for all levels of Wild Oat plants per square foot.

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The new D-46 text reads:

When conditions prevent vigorous growth of Wild Oats, apply AVENGE at the rate of 4 pints per acre for all levels of Wild Oat infestation. DO NOT apply AVENGE alone or tank-mix under severe conditions for plant growth such as drought, extreme temperature fluctuation, low soil fertility and plant disease.

- Page 4
- 11. The MIXING INSTRUCTIONS have been placed after the AVENGE Rate Recommendation Table rather than before it.
 - 12. HOW TO USE AVENGE ALONE Section, second paragraph, list line. The D-45 label stated: "Do not apply when wind velocity favors drift from target area." The D-46 statement reads: "Do NOT let spray drift onto adjacent crops."
 - 13. HOW TO USE AVENGE PLUS BROADLEAF HERBICIDES Section, Footnote 6/: AVENGE PLUS MCPA⁶: The first sentence has been modified to read, "Use only amine or ester formulation of MCPA...." The former wording was, "Use the MCPA formulation of amine or ester...."
- Page 5
- 14. Footnote 9/: AVENGE PLUS 2, 4-D: The word "only" has been added in line one. On line three, the following has been added, "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." This clarifies the meaning of the former (D-45) statements.
 - 15. Footnote 7 for Bromoxynil and Footnote 8 for MCPA + bromoxynil have been simplified.
 - 16. The Note on Crop Rotation has been deleted. The statement is not necessary. The statement read: Rotation to other crops can be made the following year.

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AVENGE[®]
WILD OAT HERBICIDE
FOR USE IN BARLEY & WHEAT



Active Ingredient:	
Difenzoquat (1,2-dimethyl-3,5-diphenyl-1H-pyrazolium methyl sulfate).....	31.8% (red)
Inert Ingredients.....	68.2%
Total.....	100.0%

(1 gallon contains 2 lbs of difenzoquat cation)

EPA Reg. No. 241-250-AA

EPA Est. No.

(12 pt. type) KEEP OUT OF REACH OF CHILDREN

(18 pt. type) DANGER!
FIRST AID

In case of contact, immediately flush eyes with plenty of water. Call a physician.

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.

See Side Panel for Additional Precautionary Statements

PELIGRO!

(AL USUARIO: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.)

(ENGLISH TRANSLATION)
DANGER!

(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

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

Manufactured by
AMERICAN CYANAMID COMPANY
AGRICULTURAL DIVISION
Wayne, NJ 07470

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Net Contents: 5 gallons
18.9 liters

22905-05

D46

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GENERAL INFORMATION

✓ 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, or 2,4-D amine or ester. AVENGE alone or in combination can be applied post-emergence 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

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

WHERE TO USE AVENGE: AVENGE alone or in combination can be applied to all varieties of barley and fall-seeded wheat varieties except Mexican durums. AVENGE can be applied to all soft white spring-seeded varieties, all spring-seeded durum varieties except Lakota, Wascona, Vic and Edmore; the spring-seeded hard red varieties Butte, Era, Fortuna, Kitt and Olat. Significant injury can occur to some wheat varieties including Aim, Alex, Borah, Bonanza, Bounty, Lark, Len, Waldron, Westbred 906-R, WS 1809, WS 1977, WS 1859, Klassic (1817), Pro-Brand 771, Yecora-Rojo.

✓ 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. 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 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



3-true leaf stage



4-true leaf stage



5-true leaf stage

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.

AVENGE Rate Recommendation Table

Wild Oat Population	Wild Oat Density Plants Per Square Foot	AVENGE ^{1/} Rate Per Acre
Low	1-10	✓ 2 1/2 pints
Moderate	11-25	✓ 3 pints
High	more than 25	✓ 4 pints

NOTE: For spray volumes in excess of 10 gallons of spray per acre (gpa), the addition of surfactant is required: Use Triton^{2/} X-100 or X-77^{3/} Spreader^{3/} or Surfonic^{4/} N-95 or Tergitol^{5/} NPX at 0.6 fluid ounce for each gallon of spray in excess of 10 gpa. Example: For a 15 gpa spray add 3 fluid ounces of surfactant (0.6 ounce for each gallon of water over 10 gpa) to each 15 gallons of water. Use only recommended surfactants.

^{1/} When conditions prevent vigorous growth of wild oats, apply AVENGE at the rate of 4 pints per acre for all levels of wild oat infestation. DO NOT apply AVENGE alone or tank-mix under severe conditions for plant growth such as drought, extreme temperature fluctuation, low soil fertility and plant disease.

^{2/} Triton is a registered trademark of Rohm and Haas Company.

^{3/} X-77^{3/} Spreader is a registered trademark of Chevron Chemical Company.

^{4/} Surfonic is a registered trademark of Jefferson Chemical Company, Inc.

^{5/} Tergitol is a registered trademark of Union Carbide Corporation.

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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 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 completed.

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

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- ✓ 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:

✓ AVENGE PLUS MCPA^{6/}: 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.

*When applying more than 10 gallons of spray per acre, follow instructions relating to addition of surfactant as described under the AVENGE Recommendation Table.

AVENGE PLUS BROMOXYNIL^{7/}: 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^{8/}: Use MCPA at the rate of 0.25 to 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^{9/}: 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.

6/ The amine and ester formulations of MCPA are sold under various brand names. Consult manufacturer's label recommendation before use.

7/ Bromoxynil is sold under various brand names. Consult manufacturer's label recommendation before use.

8/ There are several brand names for MCPA + bromoxynil. Consult manufacturer's label recommendation before use.

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

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.

→ DO NOT STORE BELOW 40°F (5°C)

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS

DANGER!

HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN;
CAUSES EYE DAMAGE

Do not get in eyes, on skin or on clothing.
Wear goggles or face shield and rubber gloves when handling.
Wash thoroughly after handling.

ENVIRONMENTAL HAZARDS

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

STORAGE AND DISPOSAL

AVENGE will crystallize at 40°F(5°C). At place of storage, examine for crystallization. If crystals occur from prolonged storage at temperatures 40°F(5°C) or below, place container on side and warm to room temperature for several hours. If crystals remain upon emptying container, tap bottom of the container to loosen crystals. Add water and swirl to dissolve before using.

PROHIBITIONS

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

PESTICIDE DISPOSAL

Pesticide, spray mixture or rinsate that cannot be used according to label instructions or chemically reprocessed must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

CONTAINER DISPOSAL

Triple rinse (or equivalent) and offer for recycling or reconditioning, or dispose of in a sanitary landfill or by incineration if permitted by State and Local Authorities.

GENERAL

Consult Federal, State or Local disposal authorities for approved alternative procedures.

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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.

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