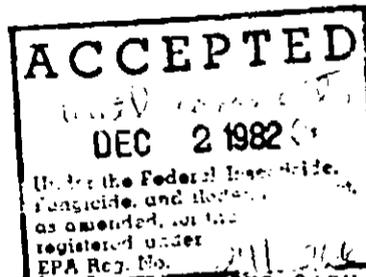


AVENGE®
Wild Oat Herbicide
EPA Reg. No. 241-266
Label Revision D-41
November 1982



- Page 1
1. Change of name to AVENGE® Wild Oat Herbicide from AVENGE® 2ASU Wild Oat Herbicide.
 2. First Aid Statement:

In Case of Contact, immediately flush eyes with plenty of water for at least 15 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-40 number has been changed to D-41.

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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, a notice that injury can occur on the spring seeded durum wheat varieties VIC and EDMORE, that AVENGE can be applied to the spring seeded hard red varieties Butte, Era, Fortuna, Kitt, Olaf, Coteau, Solar, Walera, and Pro-Brand 711. The sentence, "DO NOT APPLY to any other varieties of hard red spring wheat." has replaced the statement concerning which varieties may be injured by AVENGE.

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

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-40.

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

10. Footnote 1/ has been expanded. The D-40 text formerly read:

Under stress conditions of plant growth, apply AVENGE alone at the rate of 4 pints per acre for all levels of Wild Oat plants per square foot.

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The new D-41 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.

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- 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, last line. The D-40 label stated: "Do not apply when wind velocity favors drift from target area." The D-41 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...."

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- 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-40) statements.
- 15. Footnote 7 for Bromoxynil and Footnote 8 for MCPA + bromoxynil have been simplified.
- 16. A new tank mix for AVENGE plus GLEAN has been added and a corresponding footnote 10/ has been added.

WILD OAT HERBICIDE
FOR USE IN BARLEY & WHEAT

ACCEPTED
DEC 2 1982
Un... Insecticide.
Fung... Fungicide Act.
as only... Fungicide
registr...
241-266



Active Ingredient:	
difenzoquat (1,2-dimethyl-3,5-diphenyl-1H-pyrazol-4-yl) sulfate).....	31.2%
Inert Ingredients.....	68.8%
Total.....	100.0%

(rol)

(1 gallon contains 2 lbs. of difenzoquat cation)

EPA Reg. No. 241-266

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

Net Contents: 30 gallons
113.55 liters

22905-08

D41

241-266

CENTRAL 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

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, Olaf, Coteau, Solar, Walera, and Pro-Brand 711. DO NOT APPLY to any other varieties of hard red spring wheat.

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.



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 Ortho 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/ Ortho 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.

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

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 BROMOXNYL^{7/}: Use bromoxnyl 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 BROMOXNYL^{8/}: Use MCPA at the rate of 0.25 to 0.5 lb. acid equivalent per acre plus bromoxnyl 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.

AVENGE PLUS GLEAN^{10/}: 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.

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

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

8/ There are several brand names for MCPA + bromoxnyl. 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.

10/ Glean is a trademark of E.I. du Pont de Nemours and Company, Inc.

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.

HAZARDOUS STATEMENTS
HAZARDS TO HUMANS
DANGER!

001-266

Corrosive: Causes Eye Damage
Harmful if Swallowed or Absorbed through Skin

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

Ice will form in the container at 15°F (-10°C). If ice occurs from prolonged storage at temperatures 15°F (-10°C) 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, spray mixture or rinsate that cannot be used according to label instructions or chemically reprocessed must be disposed of according to Federal or approved State procedures under the Resource Conservation and Recovery Act.

Container Disposal

Triple rinse (or equivalent). Then 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.

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.

DEC 2 1982

Ms. Lynne M. Gregory
American Cyanamid Company
Agricultural Division
P.O. Box 400
Princeton, NJ 08540

Dear Ms. Gregory:

Subject: New Brand Names
Amendments: Label Revision and
Tank Mix with Glean
Avenge 2AS Wild Oat Herbicide
EPA Registration No. 241-250
Avenge Wild Oat Herbicide
EPA Registration No. 241-266
Your Submissions of November 23, 1982

The new brand names for the above-listed products are acceptable, and have been included in our files for these products.

The amendments referred to above, submitted in connection with registration under FIFRA are acceptable, provided that you:

1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
 - a. Note that you did not include "Glean" in the list of tank mixes under "General Information."
 - b. After "recommended surfactants" add "Cleared for application to growing crops" or specify "These recommended surfactants."
 - c. To the Tank Mix directions for "Glean," add the following statements:

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 pH greater than 7.5. Do not exceed 1/2 oz./acre/year on soils pH 6.5 or lower, or 1/3 oz./acre/year on soils pH 6.6 to 7.5. Follow the most restrictive precautions, directions, and recropping/rotation limitations that appear on both products' labels.

24-266

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2. Submit five (5) copies of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

Richard F. Mountfort *RFM*
Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (TS-767)

Enclosure

RD:MOUNTFORT;DCR-04155;WANG-1374C:pjb;Raven:479-2013;11/29/82