

PM 23 1386-43  
20 APR 1993

1045

Ms. Nik Ramswick  
Universal Cooperatives, Inc.  
7601 Metro Parkway  
P.O. Box 460  
Minneapolis, Minnesota 55440

Dear Ms. Ramswick:

Subject: 2,4-D Amine Weed Killer  
EPA Registration No. 1386-43  
Application Dated April 2, 1993, Request To Amend  
the Registration To Include Descriptive Direction  
for the Field Corn, Preplant Use

The proposed amendment to add descriptive directions for the field corn, preplant use as reflected on the submitted labeling is an acceptable amendment to the subject pesticide product registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended provided:

o That you submit 5 copies of final printed labeling before releasing the product for shipment.

If this condition is not complied with, the registration will be subject to cancellation in accordance with FIFRA, Section 6(e). Your release for shipment of the product constitutes acceptance of this condition.

A stamped copy of the draft label is enclosed for your records.

Sincerely yours,

Joanne I. Miller  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (H-7505C)

Enclosure

E.Wilson:Diskette#ABC#4: 04-20-92

**BEST AVAILABLE COPY**

PM 23 1386-13 ✓ Weed 4-19-93 2045  
E. Wilson

# 2,4-D Amine Weed Killer

KEEP OUT OF REACH OF CHILDREN  
**CAUTION**

See Side Panel For Additional Precautionary Statements

ACTIVE INGREDIENT:	
Dimethylamine salt of	
2,4-dichlorophenoxyacetic acid	47.8%
INERT INGREDIENTS	
Total	52.2%
Total	
	100.0%

\*Equivalent to 33.8% 2,4-dichlorophenoxyacetic acid. Contains 33 pounds 2,4-D Acid equivalent per gallon. \*EPA Reg. No. 1335-13  
Method No. 6D015.

Product 102

EPA Reg. No. 1335-13  
EPA Est. No. 13-6-011-1



Best Before Date:  
00 APR 1999

UNIVERSAL COOPERATIVES, INC., MINNEAPOLIS, MN 55440

Approved for the pesticide  
under EPA Reg. No.  
1386-13

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corn, apply 1 to 2 pints per acre 7 to 14 days before planting. Do not use on light, sandy soil, or where soil moisture is inadequate for normal weed growth. Use high rate for control of less susceptible weeds or cover crops such as alfalfa.

**Pre-emergence:** Apply to soil surface after planting but before corn emerges. Do not use on very light, sandy soil. **Post-emergence:** Apply just as corn plants are breaking ground. Post-emergence best results are usually obtained when weeds are small and corn is 4 to 18 inches tall. When corn is over 6 inches tall, use drop nozzles to keep spray off corn leaves as much as possible. Do not apply from heading to dough stage. If plan is planting rapidly and temperature and soil moisture content is high, use 1/2 pint per acre rate to reduce the possibility of crop damage. Only application for 3 to 10 days after application to reduce possibility of stalk breakage due to temporary softness caused by 2,4-D. Hybrid corn should be sprayed only if the cross or line is known to be tolerant to 2,4-D or the recommendation design or other experience has shown the particular cross or line being grown to be tolerant to 2,4-D treatment.

**Pre-harvest:** After the last dough or denting stage, apply 1 to 2 pints per acre of 2,4-D Amine by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control tall weeds such as bindweed, cockspur, dogbane, plantain, groundnut, quackgrass, velvetleaf, and vine that interfere with harvesting. Do not harrow or bed corn before to broadcast for 7 days following application.

**CONCENTRATE (SALTS):** See table for recommended use rates. Apply when maximum is 6 to 18 inches high with secondary roots well established. Use drop nozzles when crop is over 6 inches high. Do not apply from heading to dough stage. Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply 2,4-D Amine under these conditions, use no more than 2/3 pint per acre. Sprays should be applied only if the cross or line is known to be tolerant to 2,4-D or the recommendation design or other experience has shown the particular cross or line being grown to be tolerant to 2,4-D treatment.

**FOR USE IN CROP RESIDUE MANAGEMENT SYSTEMS IN SOYBEANS**

2,4-D Amine Weed Killer may be used for pre-emergence control of many susceptible annual and perennial broadleaf weeds. This product may be applied prior to planting soybeans to provide better burn-down control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. Make only pre-emergence applications to emerged weeds prior to planting soybeans grown in reduced tillage production systems. Apply only according to instructions given below.

Do not use any other application between herbicide application and planting of soybeans. Mixing instructions: Consult the crop of concentration, agricultural performance and field herbicide approved for use on growing crops may be added to spray mixture to increase the herbicidal effectiveness of 2,4-D Amine Weed Killer on certain weeds. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture. Application Procedures: Apply using air or ground equipment in a spray volume sufficient to provide uniform coverage of weeds. Use 2 or more gallons of total spray volume per acre for aerial application and 10 or more gallons per acre for ground equipment.

**APPLICATION TIMING AND USE RATES**

PRODUCT	BROADCAST APPLICATION RATE	WHEN TO APPLY (Days Prior to Planting Soybeans)
2,4-D Amine	1 Pint/Acre 2 Pints/Acre	Not Less Than 14 Days Not Less Than 30 Days

For best weed control results, application should be made when weeds are small, actively growing and free of stress caused by temperature extremes, moisture stress, disease, or insect damage. The control of individual weed species may be variable. Consult your local county agent or State Agricultural Extension Specialist or Crop Consultant for advice.

- Use Precautions and Restrictions:**
- Important Notice — Unacceptable injury to soybeans planted in treated fields may occur. Whether or not soybean injury occurs and the extent of such injury will depend on weather (temperature and rainfall) from herbicide application until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present at the time of application. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.
  - Do not use on sandy soils with less than 1.0% organic matter.
  - Do not make more than one application per season regardless of the application rate used.
  - Do not apply when weather conditions such as atmospheric temperature inversion or when wind direction favors drift from the treated area to susceptible plants.
  - Do not allow livestock grazing or harvest hay, forage or fodder from treated fields. Livestock should be restricted from feeding on residue of treated crop areas.
  - In treated fields, plant soybean seed as deep as practical, but not less than 1.0 inch deep. Adjust the planter, if necessary, to ensure that soybean seed is adequately covered.
  - Do not apply 2,4-D Amine Weed Killer as described unless you are prepared to accept the results of soybean injury, including possible stand loss and/or yield reduction.
  - During the growing season following application, do not replant treated fields with crops other than those labeled for use with 2,4-D Amine Weed Killer.

**RICE:** See table for recommended use rates. Apply in the late tillering stage of rice development, at the time of first joint development (just to second green flag), usually 6 to 8 weeks after emergence. Do not apply after panicle initiation, after rice leaves are covered 1/2 inch, at early heading, early panicle, late, flowering, or early heading growth stages. Some rice varieties under certain conditions can be injured by 2,4-D. Therefore, before spraying consult local Extension Service or University specialists for appropriate rates and timing of 2,4-D spray.

**SUGARCANE:** See table for recommended use rates. Apply as a pre- or post-emergence spray according to State recommendations. Apply as a pre-emergence application before cane appears or as a post-emergence application in spring after cane emerges or 1/2 inch high.

**RECOMMENDED RATES OF 2,4-D AMINE WEED KILLER**

Crop (See Detailed Instructions Above)	Normal Rates (Usually Safe to Crop)	Higher Rates for Special Situations* (More Likely to Injure Crop)
<b>SMALL GRAINS</b>		
Spring Post-emergence wheat, barley, rye oats	2/3 to 1 1/3 Pint 1/2 to 1 Pint	2 to 3 Pints 1 1/2 to 2 Pints
Pre-harvest (dough stage) wheat, barley, oats	1 to 2 Pints	2 to 3 Pints
<b>CORN</b>		
Preplant	1 to 2 Pints	
Pre-emergence	2 to 4 Pints	
Emergence	1 Pint	1 1/2 Pints
Post-emergence		
up to 6 inches tall	1/2 to 1 Pint	
6 inches to heading (see only directed spray)	1 Pint	1 1/2 to 2 1/2 Pints
Pre-harvest	1 to 2 Pints	

**RECOMMENDED RATES OF 2,4-D AMINE WEED KILLER — CONTINUED**

Crop (See Detailed Instructions Above)	Normal Rates (Usually Safe to Crop)	Higher Rates for Special Situations* (More Likely to Injure Crop)
<b>SPRING</b>		
Post-emergence 6 to 6 inches tall 6 to 18 inches tall (see only directed spray)	2/3 to 1 Pint 1 Pint	1 1/2 to 2 Pints
<b>RICE</b>	1 to 2 1/2 Pints	2 to 3 Pints
<b>SUGARCANE</b>	2 to 4 Pints	

\*The higher rates as recommended above may be necessary to control difficult weed problems such as under dry conditions in the Western states. They should not be used, however, unless possible crop injury is acceptable. Consult State Agricultural Experiment Station or Extension Service weed specialists for recommendations or suggestions to fit local conditions.

\*\*If hand treatment is used, base the dosage rate on the actual area sprayed. **LAWN AND ORNAMENTAL TURF:** Use 1 to 3 pints of 2,4-D Amine Weed Killer in enough water to give good coverage to any area on established stands of perennial grasses. Do not use on creeping grasses such as bent except for spot spraying. Heavily seeded turf should not be treated until after the second mowing and the lower dosage rate should be used. Re-seeding of lawn should be delayed following treatment. When spring application, mowed in the fall; with fall application, mowed in the spring. Legumes are usually damaged or killed. Therefore, do not treat areas where the legumes are desired. Deep-rooted perennial weeds such as bindweed and Canada thistle may require repeated application. The maximum number of treatment applications per treatment site is 2 per year. **Resistant Weeds in Lawns and Ornamental Turf (Spot Treatment):** To control certain broadleaf weeds, such as ironweed, patchy yellow, nutcrack, purslane, shepherdspurse, smartweed, henbit, buttercup, wild carrot, dandelion, common mullein and sheep sorrel usually require a considerably higher dosage rate. These resistant weeds usually may be controlled in lawns and ornamentals by applying 1 to 1 1/4 tablespoons per gallon of water when the plants are young and growing vigorously.

**THIS HIGH DOSAGE RATE CANNOT BE USED WITHOUT CAUSING SEVERE INJURY, AND CONSEQUENTLY, ITS USE MUST BE DELIBERATELY FOR SPOT TREATMENT WHERE SUCH INJURY CAN BE TOLERATED.** Repeated treatments, if new weed growth occurs, may be necessary to maintain control. **GRASS SEED CROPS:** Use 1 to 4 pints per acre in spring or fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seedling grass only after the five-leaf stage, using 3/4 to 1 pint per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4 pints can be used to control hard-to-kill annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth. **NOTE:** Do not use on bent grass unless grass injury can be tolerated. Do not graze dairy animals nor cut forage for hay within 7 days after application.

**FALLOW LAND:** Use 1 to 2 quarts per acre on annual broadleaf weeds and up to 2 quarts per acre on established perennial species, such as Canada thistle and field bindweed. Apply to weeds actively growing. Do not plant any crop for 3 months after treatment or until 2,4-D has disappeared from the soil. **PASTURES AND RANGELANDS:** To control many broadleaf weeds in pastures, meadows, and rangelands, use 2 to 4 pints per acre of 2,4-D Amine Weed Killer in sufficient water to provide for uniform application. Treat when weeds are growing actively. Do not use on newly seeded areas until grass is well established. Do not use from early boot to milk stage where sheep and/or goats are desired. Most legumes are usually injured or killed at the rates recommended. Do not graze dairy animals on treated areas within 7 days of application. Do not harvest grass for hay within 30 days of application. Do not graze most animals on treated areas within 3 days of slaughter.

**CONTROL OF SOUTHERN WILD RICE:** On rangelands, meadows, and lawns, use 2 quarts plus 4 to 8 field ounces of an agricultural surfactant per 100 gallons of water and spray thoroughly at once as tillage is well developed. Two or more treatments may be required. On rangeland, apply a minimum of 2 quarts per acre per application. Do not graze dairy animals on treated area within 7 days after treatment.

**GENERAL WEED CONTROL:** (Alfalfa, lucerne, vetch, timothy, drainage ditch banks, fence rows, industrial sites, and similar areas.) Use 1 to 2 quarts per acre. Usually 2 quarts per acre will give adequate control. Best when weeds are young and actively growing. Do not use on herbaceous ground covers or creeping grass such as bent. Legumes will usually be damaged or killed. Deep-rooted perennials may require repeat application. Do not use on heavily seeded turf until grass is well established. Only application for 3 months or until 2,4-D has disappeared from soil. The maximum number of broadcast applications per treatment site is 2 per year.

UNDER NO CIRCUMSTANCES IS ANY WARRANTY MADE AS TO THE MERCHANTABILITY OF THE PRODUCT OR THE FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE. THE USER ASSUMES ALL LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY CAUSED BY THE USE OF THE PRODUCT. THE USER SHOULD READ THE INSTRUCTIONS CAREFULLY AND FOLLOW THEM EXACTLY. THE USER SHOULD WEAR PROTECTIVE CLOTHING AND EQUIPMENT WHEN USING THE PRODUCT. THE USER SHOULD AVOID CONTACT WITH THE PRODUCT AND SHOULD WASH HANDS THOROUGHLY AFTER USE. THE USER SHOULD STORE THE PRODUCT IN A SAFE PLACE, OUT OF THE REACH OF CHILDREN AND OTHERS. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER NOT INTENDED BY THE MANUFACTURER. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER THAT MAY BE DANGEROUS TO THE USER OR OTHERS. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER THAT MAY BE ILLEGAL. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER THAT MAY BE UNETHICAL. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER THAT MAY BE HARMFUL TO THE ENVIRONMENT. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER THAT MAY BE HARMFUL TO OTHERS. THE USER SHOULD NOT USE THE PRODUCT IN A MANNER THAT MAY BE HARMFUL TO THE USER.

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**STORAGE AND DISPOSAL**

STORAGE Do not store in unsealed containers, or use for storage or disposal. Do not store at temperatures below 40° F. Do not store near children, pets, livestock, or wildlife.

DISPOSAL Do not dump into water or land. Transfer disposal of certain pesticides, spray mixtures, or fluids in a violation of Federal Law and may constitute a criminal offense. If these wastes cannot be disposed of by law according to local, state, or federal regulations, contact your State Pesticide Control Agency, or the National Waste representatives of the National Pesticide Control Council.

RECYCLING Do not recycle this product. Then apply for recycling or reconditioning, or purchase and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**WARRANTY AND LIMITATION OF DAMAGES**

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of fitness or of merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material or to which it claim is made.

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