

352-618

10/18/2002

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
352-618

Date of Issuance:
OCT 18 2002

NOTICE OF PESTICIDE:
 Registration
 Reregistration

Term of Issuance:
Conditional

Name of Pesticide Product:
DuPont K-4 Herbicide

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

E.I. DuPont de Nemours & Company
DuPont Crop Protection
Stine-Haskell Research Center
P.O. Box 30
Newark, DE 19714-0030

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit/cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.
2. Add the phrase "EPA Registration No.352-618" before you release the product for shipment.
3. Submit three (3) copies of your final printed labeling before you release the product for shipment.

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

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

Signature of Approving Official:

Date:

10-18-02



DuPont™

K-4

herbicide

For Use in Louisiana and Texas Only

Dispersible Granules

<i>Active Ingredient</i>	<i>By Weight</i>
Hexazinone [3-cyclohexyl-6-(dimethylamino) -1-methyl-1,3,5-triazine-2,4(1H,3H)-dione]	13.2%
Diuron 3-(3,4-dichlorophenyl)-1,1-dimethylurea	46.8%
<i>Inert Ingredients</i>	40.0%
TOTAL	100.0%

EPA Reg. No. 352-XXX

ACCEPTED
OCT 18 2002

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 352-618

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for medical emergencies involving this product.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

The active ingredient, hexazinone, in this product is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

GENERAL INFORMATION

DuPont™ K-4 herbicide is a water dispersible granule used at the rate range of 3.75 to 4 lbs per acre for preemergence control of annual grass and broadleaf weeds in newly planted sugarcane, stubble sugarcane, and fallow land intended for future sugarcane planting.

Caution should be exercised when applying K-4 near desirable trees and shrubs as they can absorb K-4 through roots extending into treated areas.

If K-4 is used in a tank mixture with other herbicides, read and follow all use instructions, warnings and precautions on companion herbicide labels.

K-4 should only be used in accordance with recommendations on this label.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

K-4 is absorbed through the roots and foliage. Moisture is required to activate K-4 in the soil. Best results are obtained when the applications are made to a firm, well-prepared seed bed that is moist at the time of application and 0.5 to 1.0 inches of rainfall is received within 2 weeks of application.

Temporary leaf yellowing may result from applications of K-4 over emerged sugarcane.

WEED RESISTANCE MANAGEMENT

When herbicides with the same mode of action are used repeatedly over several years to control the same weed species in the same field, naturally occurring resistant weed biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. These resistant weed biotypes may not be adequately controlled. Cultural practices such as tillage, preventing weed escapes from going to seed, and using herbicides with different modes of action within and between crop seasons can aid in delaying the proliferation and possible dominance of herbicide resistant weed biotypes.

APPLICATION INFORMATION

K-4 may be applied by aerial or ground equipment that is properly calibrated to deliver a finished spray volume that is sufficient to provide uniform coverage of the soil surface.

Minimum spray volumes are 10 GPA by ground and 5 GPA by air.

Continuous agitation in the spray tank is required to keep K-4 in suspension.

Do not apply K-4 within 234 days of harvest.

Do not apply more than 11.25 lbs of K-4 per acre per year.

Four pounds of K-4 herbicide contains 1.87 lbs of the active ingredient diuron and 0.53 lbs of the active ingredient hexazinone.

When applying K-4 alone or in combination with other hexazinone-containing products, do not exceed a total annual application of 1.5 lbs of hexazinone per acre in Louisiana or 1.75 lbs of hexazinone in Texas.

When applying K-4 alone or in combination with other diuron-containing products, do not exceed a total annual application of 6 lbs of diuron per acre.

DIRECTIONS FOR USE

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

K-4 should be used only in accordance with recommendations on this label, or in supplemental DuPont labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Proper mixing/loading site considerations and application procedures must be followed to minimize potential for hexazinone movement into ground water. Users are encouraged to consult with their state Department of Agriculture, Extension Service, or other pesticide lead agency for information regarding soil permeability, aquifer vulnerability, and best management practices for their area.

AGRICULTURAL USES

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is :

- Coveralls
- Shoes plus socks

SUGARCANE

PREEMERGENCE USE

NEWLY PLANTED SUGARCANE

Preemergence applications of DuPont™ K-4 at the use rate of 3.75 to 4 lbs per acre may be made to newly planted sugarcane for control of annual grass and broadleaf weeds. Applications should be made immediately following planting and row packing and prior to crop emergence. For best weed control, applications should be made to a firm, well-prepared seedbed that is free from clods or excess plant residue.

STUBBLE (RATOON) SUGARCANE

Preemergence applications of K-4 at the use rate of 3.75 to 4 lbs per acre may be made to stubble (ratoon) sugarcane following harvest. For best weed control, applications should be made immediately following harvest and prior to subsequent weed germination. Excess plant residue on the soil surface may decrease the effectiveness of K-4 and should be removed or minimized.

K-4 may also be applied postemergence to stubble sugarcane until the crop reaches a height of 18 inches or is within 234 days of harvest, whichever is more restrictive.

Postemergence applications of K4 to actively growing sugarcane may result in crop injury when daily temperatures exceed 80 degrees F. When daily temperatures exceed 80 degrees F, post-directed applications are recommended in order to minimize spray contact with sugarcane foliage.

If weeds are present at application, a tank mix partner is recommended for improved postemergence control. If K-4 is used in a tank mixture with other herbicides, read and follow all use instructions, warnings and precautions on companion herbicide labels.

If weeds are present at the time of application a non-ionic surfactant at the use rate of 0.25% v/v or a crop oil concentrate at the use rate of 1% v/v is recommended. If a tank mix partner is being used, follow the most restrictive adjuvant recommendation.

FALLOW (TO BE PLANTED TO SUGARCANE)

K-4 may be applied to fallow sugarcane fields at the use rate of 3.75 to 4 lbs per acre. For best weed control, applications should be made to newly prepared seedbeds that are free of clods and existing vegetation. If weeds are present at application, either a separate application of a contact herbicide or a tank mix partner is recommended for improved post emergence control. If K-4 is used in a tank mixture with other herbicides, read and follow all use instructions, warnings and precautions on companion herbicide labels.

Make fallow applications of K-4 at least 60 days prior to sugarcane planting.

TANK MIXTURES

K-4 may be applied in tank mixtures with other preemergence or postemergence products labeled for use on sugarcane. Refer to the tank mixture product label(s) for information on weeds, application information, application conditions and use restrictions (follow the label guidelines that are the most restrictive).

K-4 + 2,4-D

A tank mixture of K-4 at 3.75 to 4 lbs per acre plus 2,4-D (4 lb ai/gal) at 1 to 2 quarts per acre may be applied as a postemergence spray for improved control of existing annual broadleaf weeds. Applications of this tank mixture may be made until sugarcane reaches a height of 18 inches or is within 234 days of harvest. Refer to the 2,4-D label for additional instructions and/or restrictions. The use of a non-ionic surfactant or a crop oil concentrate is required.

K-4 + "Weedmaster"

A tank mixture of K-4 at 3.75 to 4 lbs per acre plus "Weedmaster" at 1 to 2 pints per acre may be applied as a postemergence spray for improved control of existing annual broadleaf weeds. Applications of this tank mixture may be made until sugarcane reaches a height of 18 inches or is within 234 days of harvest. Refer to the "Weedmaster" label for additional instructions and/or restrictions. The use of a non-ionic surfactant or a crop oil concentrate is required.

K-4 + "Gramoxone" Extra (Louisiana Only)

For improved control of annual ryegrass and other emerged grass and broadleaf weeds, a tank mixture of K-4 at 3.75 to 4 lbs per acre plus "Gramoxone" Extra at 1.5 to 3 pints per acre may be applied as a postemergence spray to sugarcane with no more than 4 leaves or 18 inches in height, whichever is more restrictive. The use of a non-ionic surfactant or a crop oil concentrate is required.

WEEDS CONTROLLED

DuPont™ K-4 is recommended for the control or suppression of the following species. (Use higher rates for heavier infestation.)

Ageratum*	Johnsongrass (from seed)
Alexandergrass	Jungleice
Amaranth (slender)	Lambsquarter
American burnweed (fireweed)	Morningglory (annual, hairy, pitted, red [scarlet], smallflower three-lobed)
Balsam apple	Oxalis
Barnyardgrass	Panicum (brownleaf, browntop, Texas millet)
Bermudagrass*	Paspalum (ricegrass, sour)
Bluegrass, annual	Pigweed (common, smooth)
Broadleaf signalgrass	Popolo
Canarygrass	Purslane
Carolina geranium	Redweed
Carpetweed	Sandbur
Chickweed	Sedge, annual
Crabgrass (hairy, large, smooth)	Sensitive plant (hila hila)
Crotalaria (fuzzy, showy)	Smellmelon
Cuphea (weed)	Sowthistle
Cutleaf eveningprimrose	Spanish needle
Dallisgrass	Sprangletop
Fingergrass (radiate, swollen)	Spurge (prostrate, graceful)
Flora's paintbrush	Swinecress
Foxtail (bristly, yellow)	Sunflower
Goosegrass	Toadflax
Groundcherry, annual	Vaseygrass
Guineagrass	Waltheria (hialoa)
Henbit	Wild mustard
Italian Ryegrass	
Itchgrass*	
Jobs tears	

* Partial control

Note: For improved suppression of bermudagrass in newly planted sugarcane, make applications of K-4 to a well-prepared seedbed immediately following row packing. Best results have been observed when bermudagrass has been managed either mechanically or with herbicides in the fallow program preceding sugarcane planting.

In stubble (racon) sugarcane, best results for bermudagrass suppression are obtained when applications are made in late winter when bermudagrass is dormant.

USE PRECAUTIONS - SUGARCANE

Do not plant any crop other than sugarcane following an application of K-4.

Do not feed sugarcane forage to livestock.

Do not apply K-4 within 234 days of harvest.

To avoid injury to sugarcane, observe the following precautions:

- Do not use K-4 on cane that shows poor vigor because of insect damage, disease, or winter injury, or shows symptoms of other stress conditions such as drought stress.
- Do not add a surfactant in applications unless otherwise specified.
- Do not use K-4 on gravelly or rocky soils, thinly covered subsoils, or coarse-textured soils (sands to sandy loams) with less than 1% organic matter.

- Temporary chlorosis of the crop may result from application over emerged cane. Applications during active cane growth should be directed to cover the weeds and soil while minimizing crop contact.

Extremely heavy rainfall after application may result in poor weed control and/or crop injury, especially if the application is made to dry soil.

Do not apply more than 11.25 lbs of K-4 per acre per year.

Four pounds of K-4 herbicide contains 1.87 lbs of the active ingredient diuron and 0.53 lbs of the active ingredient hexazinone.

When applying K-4 alone or in combination with other hexazinone-containing products, do not exceed a total annual application of 1.5 lbs of hexazinone per acre in Louisiana or 1.75 lbs of hexazinone in Texas.

When applying K-4 alone or in combination with other diuron-containing products, do not exceed a total annual application of 6 lbs of diuron per acre.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (greater than 150–200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions! See the Wind, Temperature and Humidity, and Temperature Inversions sections below.

CONTROLLING DROPLET SIZE - GENERAL TECHNIQUES

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use a higher-capacity nozzle instead of increasing pressure.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

CONTROLLING DROPLET SIZE - AIRCRAFT

- Number of Nozzles - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.

- Nozzle Orientation - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

BOOM LENGTH AND HEIGHT

- **Boom Length (aircraft)** - The boom length should not exceed 3/4 of the wing length, using shorter booms decreases drift potential. For helicopters use a boom length and position that prevents droplets from entering the rotor vortices.
- **Boom Height (aircraft)** - Application more than 10 feet above the canopy increases the potential for spray drift.
- **Boom Height (ground)** Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. The boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to variable direction and inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they effect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates a surface inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift, and not interfering with uniform deposition of the product.

SPRAY TANK CLEANOUT

Thoroughly clean all traces of DuPont™ K-4 from application equipment immediately after use. Flush the tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately). Dispose of the equipment wash water by applying it to a use-site listed on this label.

Caution should be exercised when cleaning equipment used to apply K-4. Desirable plants such as trees and shrubs can absorb K-4 through roots which extend beyond the plant canopy.

STORAGE AND DISPOSAL

Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

Product Disposal: Do not contaminate water, food, or feed by disposal. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: For Fiber Sacks: Completely empty fiber sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then dispose of sack in a sanitary landfill or by incineration if allowed by State and local authorities. **For Fiber Drums With Liners:** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If drum is contaminated and cannot be reused, dispose of in the same manner. **For Paper and Plastic Bags:** Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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"Weedmaster" is a trademark of BASF Ag Products

"Gramoxone" is a trademark of Syngenta Crop Protection Inc.

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LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read This Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product; crop injury, or; injury to non-target crops or plants.

DuPont does not agree to be an insurer of these risks. **WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.**

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

DUPONT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

IN NO EVENT SHALL DUPONT OR SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. BUYER'S OR USER'S BARGAINED-FOR EXPECTATION IS CROP PROTECTION. THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF DUPONT OR SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, TORT OR STRICT LIABILITY), WHETHER FROM FAILURE TO PERFORM OR INJURY TO CROPS OR OTHER PLANTS, AND RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT, OR AT THE ELECTION OF DUPONT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

DuPont or its Ag Retailer must have prompt notice of any claim so that an immediate inspection of buyer's or user's growing crops can be made. Buyer and all users shall promptly notify DuPont or a DuPont Ag Retailer of any claims, whether based on contract, negligence, strict liability, other tort or otherwise or be barred from any remedy.

This Limitation of Warranty and Liability may not be amended by any oral or written agreement.

For product information call: 1-888-6-DUPONT

Internet address: <http://cropprotection.dupont.com/>

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