

241-381

12-22-2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

DEC 22 2003

BASF Corporation
Attn: Jeff Birk
PO Box 13528
Research Triangle Park, NC 27709-3528

Dear Mr. Birk:

Subject: First Aid Amendments
Product: Cadre DG Peanut Herbicide
EPA Regulation Number: 241-381
Submission Date: 12/03/03

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable, provided you make the following changes before you release the product for shipment.

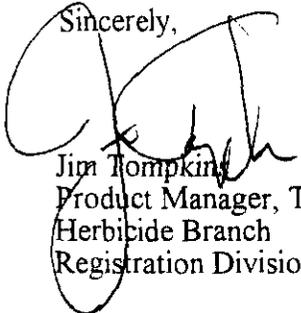
1. Add to the User Safety Recommendations box, "Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing."
2. In the Environmental Hazards section, add "or rinsate" to the end of the second paragraph.
3. In the Storage and Disposal section, replace "Prohibitions" with "Pesticide Storage" and add the appropriate pesticide storage information.
4. On Page 3 of the label, the Agricultural Use Requirements box is between the Disposal statements. Move this box to the end of the Storage and Disposal section following the last sentence of the paragraph that begins, "In case of emergency..."

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Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted labels. A stamped copy of labeling is enclosed for your records.

If you have any questions concerning this letter, please contact Mindy Lohman at (703-892-1651).

Sincerely,



Jim Tompkins
Product Manager, Team 25
Herbicide Branch
Registration Division

Enclosure

CADRE[®]

DG PEANUT HERBICIDE

SPECIMEN



USE ONLY IN
STATES OF ALABAMA
ARIZONA CALIFORNIA
FLORIDA GEORGIA ILLINOIS
INDIANA IOWA KANSAS
LOUISIANA MISSISSIPPI
MISSOURI NEBRASKA
OKLAHOMA TEXAS AND WISCONSIN

ACTIVE INGREDIENT: Imazaic (5-[2-[4,5-dihydro-3-methyl-4H-imidazol-2-yl]-5-methyl-3-thio-1,2,4-triazol-6-yl]imidazole-2-yl)-5-methyl-3-thio-1,2,4-triazol-6-ylamine
INERT INGREDIENTS
TOTAL

Each soluble packet contains 0.15 pounds of active ingredient as the free base of imazaic.

EPA Reg. No. 241-381

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

ACCEPTED
with COMMENTS
in EPA Letter Dated
DEC 22 2003
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

BASF

241-381

FIRST AID	
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center for treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).</p>	



FOR USE ONLY IN
 PEANUTS IN THE STATES OF ALABAMA,
 ARIZONA, ARKANSAS, FLORIDA,
 GEORGIA, MISSISSIPPI, NEW MEXICO,
 NORTH CAROLINA, OKLAHOMA, SOUTH
 CAROLINA, TEXAS, AND VIRGINIA

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS

CAUTION!

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves, such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, or neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils.
- shoes plus socks

Follow manufacturer's instructions for cleaning and 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, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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 cleaning equipment or disposing of equipment washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

DIRECTIONS FOR USE

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

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

Observe all cautions and limitations on this label and on the labels of products used in combination with **CADRE DG**. Do not use **CADRE DG** other than in accordance with the instructions set forth on this label; this may help prevent crop response. Keep containers closed to avoid spills and contamination.

DO NOT apply this product through any type of irrigation system.

DO NOT graze or feed treated peanut hay to livestock.

Do not apply more than 0.063 lbs a.i./A Imazapic (1.44 oz **CADRE DG**) per application or per use season.

Preharvest Interval: There must be an interval of at least 90 days between an application of **CADRE DG** and peanut harvest.

STORAGE AND DISPOSAL

PROHIBITIONS: DO NOT contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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 enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 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
- chemical-resistant gloves, such as butyl rubber ≥14 mils, or natural rubber ≥14 mils, or neoprene rubber ≥14 mils, or nitrile rubber ≥14 mils.
- shoes plus socks

CONTAINER DISPOSAL: DO NOT reuse outer packaging. Dispose of outer packaging in a sanitary landfill, by incineration or, if allowed by State and local authorities by burning. If burned, stay out of smoke.

In case of an emergency endangering life or property involving this product, call day or night 800-832-HELP

GENERAL INFORMATION

CADRE® DG peanut herbicide can be applied early postemergence in peanuts. Refer to the specific treatment under the "APPLICATION INSTRUCTIONS" section of the label.

The weed killing activity involves uptake of **CADRE DG** by weed roots and/or foliage and rapid translocation to the growing points. After **CADRE DG** application, susceptible weeds may show yellowing and weed growth will stop. Several days may be required before the complete death of susceptible weeds. Adequate soil moisture is important for optimum **CADRE DG** activity. When adequate soil moisture is present, **CADRE DG** will have residual activity on susceptible germinating weeds; activity on established weeds will depend on the weed species and the depth of its root system in the soil. If adequate rainfall is not received within 7 days, than irrigation is required to activate **CADRE DG**. A timely cultivation made at least 14 days after **CADRE DG** application may improve general herbicide performance, particularly when adequate soil moisture is not present.

A **CADRE DG** application may result in some peanut yellowing and/or a reduction in vine growth.

Under adverse conditions (including but not limited to high pH 7.5, low nutrient availability, saline conditions, and/or hardpans), **CADRE DG** application may induce an adverse crop response.

Naturally occurring biotypes* of some of the weeds listed on this label may not be effectively controlled by this and/or other products with either the ALS/AHAS enzyme inhibiting mode of action. Other herbicides with the ALS/AHAS enzyme inhibiting mode of action include the sulfonylureas (e.g., Accent™, Basic™, Classic™, Concert™, Exceed™, Permit™, Pinnacle™, etc.), the sulfonamides

(e.g., Broadstrike™, etc.) and the pyrimidyl benzoates (e.g. Staple™, etc.) If naturally occurring ALS/AHAS resistant biotypes are present in a field, **CADRE DG** and/or any other ALS/AHAS enzyme inhibiting mode of action herbicide should be tank-mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

*A weed biotype is a naturally occurring plant within a given species that has a slightly different, but distinct, genetic makeup from other plants.

Use of **CADRE DG** is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

Replanting: If replanting is necessary in a field previously treated with **CADRE DG**, the field may be replanted to peanuts. Rework the soil no deeper than 2 inches. DO NOT apply an additional treatment of **CADRE DG** or PURSUIT® herbicide.

MIXING INSTRUCTIONS

Fill the spray tank one-half to three-quarters full with clean water. Add the required number of **CADRE DG** soluble packets to the spray tank while agitating. Fill the remainder of the tank with water.

Add a nonionic surfactant or crop oil concentrate to the spray tank. Maintain agitation while spraying to ensure a uniform spray mixture. An antifoaming agent may be added to the tank if needed.

When tank-mixing **CADRE DG** with recommended herbicides, add **CADRE DG** to the spray tank first and make sure it is thoroughly mixed before adding the other herbicide.

To avoid injury to sensitive crops, spray equipment used for **CADRE DG** applications must be drained and thoroughly cleaned with water before applying other products or spraying other crops.

SPRAYING INSTRUCTIONS

DO NOT apply if wind conditions, temperature inversion conditions, or other conditions may cause drift onto adjacent areas or sensitive crops. Sensitive crops include, but are not limited to, leafy vegetables and cotton. DO NOT apply if rainfall is threatening. Rainfall within 3 hours after **CADRE DG** application may reduce weed control.

GROUND APPLICATIONS:

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre. A spray pressure of 20 to 40 psi is recommended.

Adjust the boom height to ensure proper coverage of weed foliage (according to the manufacturer's recommendation). Use only standard flat-fan nozzle tips.

DO NOT apply by helicopter, airplane, or any other aerial equipment.

Avoid overlaps when spraying.

APPLICATION INSTRUCTIONS

CADRE DG is active on many grass weeds, but a soil-active grass herbicide such as PROWL®, or Sonalan™ should be applied according to label directions before **CADRE DG** use.

Apply **CADRE DG** at a rate of 1.44 ounces per acre (0.063 lbs a.i./A) plus an approved spray adjuvant (refer to the SPRAY ADJUVANTS section of this label) early postemergence to control broadleaf and grass weeds in peanuts. Refer to the **WEEDS CONTROLLED** chart below for weed species controlled.

WEEDS CONTROLLED

An early postemergence application of **CADRE® DG peanut herbicide**, at a use rate of 1.44 ounces per acre*, will control or suppress the weeds listed below.

BROADLEAF WEEDS CONTROLLED	MAXIMUM HEIGHT AT APPLICATION (inches)
Anoda, Spurred	2
Burgherkin	2
Carpetweed	2
Citronmelon	2
Cocklebur, Common	6
Crownbeard, Golden	2
Indigo, Hairy	2
Morningglory	
Cypressvine	3
Entireleaf	3
Ivyleaf	3
Pitted	3
Smallflower	3
Tall	3
Pigweed	
amaranth, Palmer	4 - TX, OK and NM
amaranth, Palmer	2 - areas outside TX, OK and NM
redroot	4
smooth	4
spiny	4
Poinsettia, Wild	2
Pusley, Florida	2
Radish, Wild	4
Redweed	4
Senna, Coffee	3
Sicklepod	3
Sida, Prickly	2
Spurge spp.	2
Starbur, Bristly	2
Velvetleaf	2

BROADLEAF WEEDS SUPPRESSED	MAXIMUM HEIGHT AT APPLICATION (inches)
Beggarweed, Florida	2
Lambsquarter, Common	2
Ragweed, Common	2

GRASS WEEDS CONTROLLED	MAXIMUM HEIGHT AT APPLICATION (inches)
Crabgrass	
Large	4
Smooth	4
Crowfootgrass	2
Johnsongrass	
Rhizome***	8-10
Seedling	4
Panicum	
Fall	4
Texas	2
Sandbur spp.	4
Signalgrass, Broadleaf	4

GRASS WEEDS SUPPRESSED	MAXIMUM HEIGHT AT APPLICATION (inches)
Goosegrass	2

SEDGES CONTROLLED	MAXIMUM HEIGHT AT APPLICATION (inches)
Nutsedge	
Purple	4
Yellow	4

*One water soluble packet of **CADRE DG** will treat 2 acres of peanuts at the 1.44 ounce per acre rate.

****CADRE DG** will control many grass weeds which escape from the application of a soil-applied grass herbicide. However, **CADRE DG** should be used as a component of a grass weed control program and following the application of a soil-applied grass herbicide. Grass weeds must be present at the time of application to obtain control.

***For control of rhizome johnsongrass, weeds must be at least 8 to 10 inches tall at application. Smaller weeds do not generally have enough leaf surface area to take up enough **CADRE DG** for complete control.

SPRAY ADJUVANTS

West Texas, New Mexico and Oklahoma

Do Not use a nonionic surfactant as an adjuvant. Include either a crop oil concentrate, or methylated seed oil concentrate or blends of these containing an organosilicate-based surfactant at 1 quart per acre. Maintain agitation while spraying to ensure a uniform spray mixture.

Areas outside of West Texas, New Mexico and Oklahoma

Always include a nonionic surfactant or crop oil concentrate with **CADRE DG** applications. Use a nonionic surfactant with at least 80% active ingredient at one quart of surfactant for each 100 gallons of spray solution. If using crop oil concentrate, add one quart per acre. Under adverse application conditions (dry weather, larger weeds), the use of a crop oil concentrate at one quart per acre, and fertilizer (spray grade ammonium sulfate at 2.5 lbs per acre or liquid fertilizer at 1-2 quarts per acre), is recommended.

CULTIVATION

The control of difficult weeds (such as Florida beggarweed) and weeds treated under dry conditions is often greatly enhanced by a timely cultivation. Cultivation should be done at least 14 days after **CADRE DG** application. DO NOT cultivate prior to 14 days after **CADRE DG** application since this timing is too early to take full advantage of the weed control activity offered by **CADRE DG**. In addition, cultivations should be shallow to avoid excessive movement of treated soil and to avoid exposing weed seed buried deep within the soil.

HERBICIDE COMBINATIONS

CADRE DG may be tank-mixed with other herbicides if the practice is not prohibited by the label of the tank-mix partner. When **CADRE DG** is tank-mixed with another herbicide, read each label carefully to determine use rates, methods of application, proper timing, weeds controlled, restrictions and precautions. Always use in accordance with the more restrictive label. No labeled use rate may be exceeded. DO NOT mix **CADRE DG** with any product whose label prohibits tank-mixes.

Using Starfire® or Classic® in tank-mixtures with **CADRE DG** may result in increased peanut injury.

Using Basagran® in tank-mixtures with **CADRE DG** may result in reduced broadleaf weed control.

Using a postemergence grass control herbicide or fungicide in tank-mixtures with **CADRE DG** may result in reduced weed control.

It is not recommended to use **CADRE DG** in combination with or following a PURSUIT® or Strongarm® application due to the potential for herbicide resistance development and uncertainty regarding crop response.

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ROTATIONAL CROPS

The following rotational crops may be planted after applying **CADRE® DG peanut herbicide** in peanuts:

1. Any interval after **CADRE DG** application:
Peanuts
2. Four months after **CADRE DG** application:
Bahagrass Rye Wheat
3. Nine months after **CADRE DG** application:
Field Corn Snapbeans Southern Peas
Soybeans Tobacco
4. Eighteen months after a **CADRE DG** application:
Barley Cotton* Grain Sorghum
Oats Onions** Sweet Corn
5. Twenty-six months after a **CADRE DG** application:
All crops not otherwise listed.
6. Forty months after **CADRE DG** application:
Canola Potatoes Red Table Beets
Sugar Beets

Use of **CADRE DG** herbicide in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

Application of products containing chlorimuron ethyl (e.g., Classic), or imazethapyr (e.g., PURSUIT®) the same year as labeled rates of CADRE may increase the risk of injury to sensitive rotational crops. Consult labels for recommended uses of these products in combinations. Always follow the more restrictive label limitations and precautions.

*For Arizona, Arkansas, New Mexico, Oklahoma, and Texas only: Cotton may be planted 18 months after **CADRE DG** application in the states of Arizona, Arkansas, New Mexico, Oklahoma, and Texas unless drought conditions develop the year of **CADRE DG** application (DO NOT rotate to cotton at 18 months after **CADRE DG** application if less than 15 inches of rainfall or irrigation is received from the time of **CADRE DG** application through November 1 of the same year). If drought conditions develop the year of **CADRE DG** application, cotton may be planted 26 months after **CADRE DG** application.

**For Florida and Georgia only.

WEED SCIENTIFIC NAMES

BROADLEAF WEEDS

Anoda, Spurred	(<i>Anoda cristata</i>)
Beggarweed, Florida	(<i>Desmodium tortuosum</i>)
Burgherkin	(<i>Cucumis anguria</i>)
Carpetweed	(<i>Mollugo verticillata</i>)
Citronmelon	(<i>Citrullus lanatus</i> var. <i>citroides</i>)
Cocklebur, Common	(<i>Xanthium strumarium</i>)
Crownbeard, Golden	(<i>Verbesina encelioides</i>)
Indigo, Hairy	(<i>Indigofera hirsuta</i>)
Lambsquarters, Common	(<i>Chenopodium album</i>)
Morningglory	
Cypressvine	(<i>Ipomoea quamoclit</i>)
Entireleaf	(<i>Ipomoea hederacea</i> var. <i>integriuscula</i>)
Ivyleaf	(<i>Ipomoea hederacea</i>)
Pitted	(<i>Ipomoea lacunosa</i>)
Smallflower	(<i>Jacquemontia tamnifolia</i>)
Tail	(<i>Ipomoea purpurea</i>)
Pigweed spp.	
Amaranth, Palmer	(<i>Amaranthus palmeri</i>)
Redroot	(<i>Amaranthus retroflexus</i>)
Smooth	(<i>Amaranthus hybridus</i>)
Spiny	(<i>Amaranthus spinosus</i>)
Poinsettia, Wild	(<i>Euphorbia heterophylla</i>)
Pusley, Florida	(<i>Richardia scabra</i>)
Radish, Wild	(<i>Raphanus raphanistrum</i>)
Ragweed, Common	(<i>Ambrosia artemisiifolia</i>)
Redweed	(<i>Melochia corchorifolia</i>)
Senna, Coffee	(<i>Cassia occidentalis</i>)
Sicklepod	(<i>Cassia obtusifolia</i>)
Sida, Prickly	(<i>Sida spinosa</i>)
Spurge spp.	(<i>Euphorbia</i> spp.)
Starbur, Bristly	(<i>Acanthospermum hispidum</i>)
Velvetleaf	(<i>Abutilon theophrastix</i>)

GRASS WEEDS

Crabgrass	
Large	(<i>Digitaria sanguinalis</i>)
Smooth	(<i>Digitaria ischaemum</i>)
Crowfootgrass	(<i>Dactyloctenium aegyptium</i>)
Goosegrass	(<i>Eleusine indica</i>)
Johnsongrass	(<i>Sorghum halepense</i>)
Panicum	
Fall	(<i>Panicum dichotomiflorum</i>)
Texas	(<i>Panicum texanum</i>)
Sandbur spp.	(<i>Cenchrus</i> spp.)
Signalgrass, Broadleaf	(<i>Brachiaria platyphylla</i>)
Nutsedge	
Purple	(<i>Cyperus rotundus</i>)
Yellow	(<i>Cyperus esculentus</i>)

NOTES

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Conditions of Sale and Warranty

The **Directions For 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 use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. All such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. IN NO CASE SHALL BASF OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

USES WITH OTHER PRODUCTS (TANK-MIXES)

If this product is used in combination with any other product except as specifically recommended in writing by BASF then BASF shall have no liability for any loss, damage, or injury arising out of its use in any such combination not so specifically recommended. If used in combination recommended by BASF, the liability of BASF shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the BASF product in such combination use, and in any event shall be limited to return of the amount of the purchase price of the BASF product.

Basagran, Cadre, Prowl and Pursuit are registered trademarks of BASF Corporation

Broadstrike, Sonalan and Strongarm are registered trademarks of Dow AgroSciences

Accent, Basic, Classic, Concert, Pinnacle, and Staple are registered trademarks of E.I. du Pont de Nemours & Co., Inc.

Permit is a registered trademark of Monsanto Agricultural Products Company

Exceed is a registered trademark of Novartis Crop Protection, Inc.

Starfire is a registered trademark of Zeneca, Inc.

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