



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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

JUN 12 2006

Ms. Rebecca M. Ashley  
E.I. DuPont de Nemours & Company  
DuPont Crop Production  
Stine-Haskell Research Center  
P. O. Box 30  
Newark, DE 19714

Dear Ms. Ashley:

Subject: DuPont Cimarron Herbicide (Revise Rate for Control of Multiflora Rose)  
EPA Registration No. 352-616  
Application Dated May 15, 2006

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. Revise the last sentence of your Environmental Hazards section to read "Do not contaminate water when **cleaning equipment** or when disposing of equipment washwaters."
2. In your Limitation of Warranty and Liability, revise the second sentence of the third paragraph to read "**TO THE FULLEST EXTENT PERMITTED BY LAW, WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.**"

Submit one copy of your final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling supersedes all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

*Vickie Walters for*  
James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

2 8 16  
H-

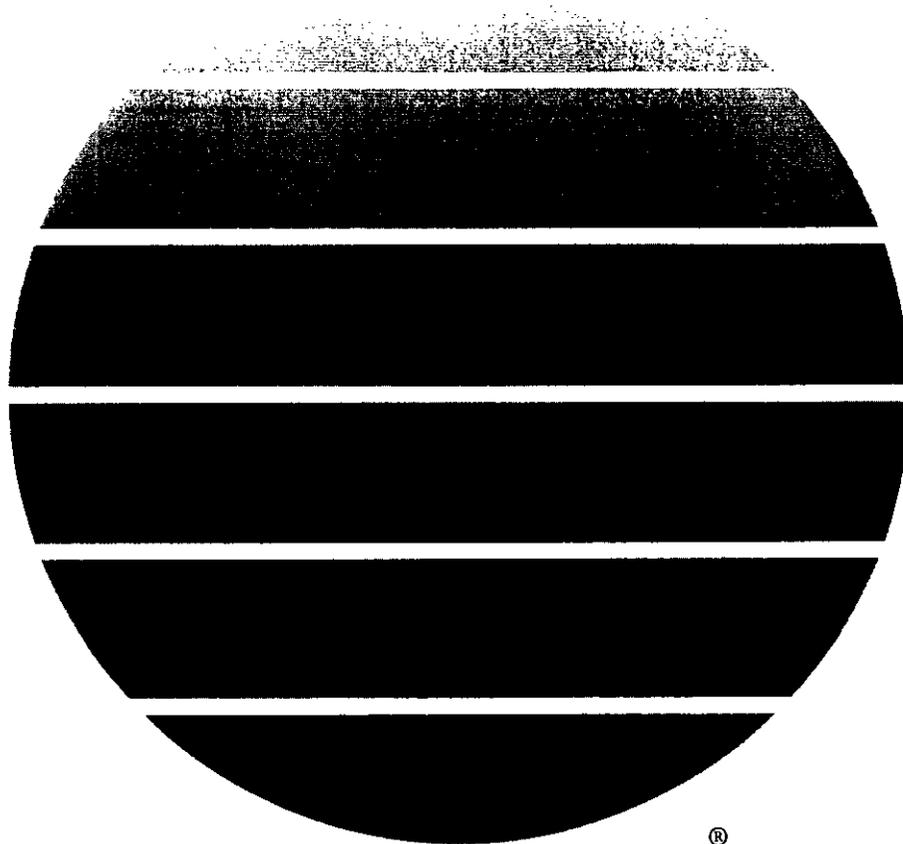


# DuPont™ Cimarron®

herbicide

---

## DRAFT LABEL



*“..... A Growing Partnership With Nature”*

3 8 16

## DUPONT™ CIMARRON® HIGHLIGHTS

- For selective postemergence annual and perennial broadleaf weed and brush control or suppression on established grasses in pastures, rangeland and acres enrolled in the Conservation Reserve Program (CRP).
- For selective weeding to aid in the establishment of grasses in pastures, rangeland and CRP.
- Recommended for land primarily dedicated to pasture or rangeland (see Crop Rotation section for information).
- May be applied by ground or by air.
- In pasture, rangeland or CRP, use rates are 1/10 ounce per acre as a broadcast application to aid in establishing grasses or 1/10 to 1 ounce per acre as a broadcast application to established grasses. For spot applications, use rate is 1 ounce per 100 gallons of water.
- Always include a spray adjuvant as recommended in this label unless otherwise directed.
- There are no grazing or haying restrictions for CIMARRON®.
- Consult label text for complete instructions. Always read and follow label Directions for Use.

4 8 16

**TABLE OF CONTENTS**

|  |   |  |    |
|--|---|--|----|
| PRECAUTIONARY STATEMENTS .....                         | 1 | SPRAY DRIFT MANAGEMENT .....                       | 10 |
| DIRECTIONS FOR USE .....                               | 2 | Importance of Droplet Size .....                   | 10 |
| GENERAL INFORMATION .....                              | 2 | Controlling Droplet Size—General Techniques .....  | 10 |
| Environmental Conditions and Biological Activity ..... | 2 | Controlling Droplet Size—Aircraft .....            | 10 |
| Application Information for                            |   | Boom Height .....                                  | 10 |
| Grass Establishment in Pasture, Rangeland              |   | Wind .....   | 10 |
| and Conservation Reserve Program (CRP) .....           | 3 | Temperature and Humidity .....                     | 11 |
| Use Rates and Application Timing                       |   | Temperature Inversions .....                       | 11 |
| for Grass Establishment in Pastures,                   |   | Shielded Sprayers .....                            | 11 |
| Rangeland and CRP .....                                | 3 | Air-Assisted (Air Blast) Field Crop Sprayers ..... | 11 |
| Application Information for                            |   | WEED RESISTANCE .....                              | 11 |
| Established Grasses in Pastures, Rangeland             |   | INTEGRATED PEST MANAGEMENT .....                   | 11 |
| and the Conservation Reserve Program (CRP) .....       | 3 | PRECAUTIONS .....                                  | 11 |
| Use Rates and Application Timing                       |   | STORAGE AND DISPOSAL .....                         | 12 |
| for Established Grasses in Pastures,                   |   | NOTICE OF WARRANTY .....                           | 12 |
| Rangeland and CRP .....                                | 3 |  |    |
| Weeds and Brush Controlled/Suppressed—                 |   |  |    |
| Pastures/Rangeland/CRP .....                           | 4 |  |    |
| Spot Applications for Suppression of Weeds & Brush ..  | 5 |  |    |
| Spray Adjuvants .....                                  | 6 |  |    |
| Ground Application .....                               | 7 |  |    |
| Aerial Application .....                               | 7 |  |    |
| Product Measurement .....                              | 7 |  |    |
| Tank Mixtures .....                                    | 7 |  |    |
| DuPont™ CIMARRON® Tank Mixtures .....                  | 7 |  |    |
| CROP ROTATION .....                                    | 8 |  |    |
| Minimum Rotation Intervals .....                       | 8 |  |    |
| Soil pH Limitations .....                              | 9 |  |    |
| Checking Soil pH .....                                 | 9 |  |    |
| Rotation Intervals in Pastures, Rangeland or CRP       |   |  |    |
| for Overseeding and Renovation .....                   | 9 |  |    |
| BIOASSAY .....   | 9 |  |    |
| GRAZING/HAYING .....                                   | 9 |  |    |
| MIXING INSTRUCTIONS .....                              | 9 |  |    |
| SPRAY EQUIPMENT .....                                  | 9 |  |    |
| SPRAYER CLEANUP .....                                  | 9 |  |    |
| At the End of the Day .....                            | 9 |  |    |
| After Spraying CIMARRON® and Before Spraying           |   |  |    |
| Crops Other Than Wheat, Barley, Pasture,               |   |  |    |
| or Rangeland .....                                     | 9 |  |    |

5 8 16



# DuPont™ Cimarron®

herbicide

Dry Flowable

For Use on Pastures, Rangeland or CRP

| Active Ingredient  | By Weight |
|--|-----------|
| Metsulfuron Methyl   |           |
| Methyl 2-[[[(4-methoxy-6-methyl<br>-1,3,5-triazin-2yl)amino]carbonyl]<br>amino]sulfonyl]benzoate | 60%       |
| Inert Ingredients  | 40%       |
| TOTAL  | 100%      |

EPA Reg. No. 352-616

EPA Est. No. \_\_\_\_\_

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**  
**JUN 12 2006**  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
352-616

## KEEP OUT OF REACH OF CHILDREN CAUTION

### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** 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.

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 emergency medical treatment information.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION!** Causes eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

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

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.

**Engineering Control Statement:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### 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.

6716

## IMPORTANT INFORMATION

### PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

### 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.

#### **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 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.

DuPont™ CIMARRON® should be used only in accordance with recommendations on this label or in separate published DuPont recommendations.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont.

Do not apply this product through any type of irrigation system.

### GENERAL INFORMATION

CIMARRON® herbicide is recommended for use on land primarily dedicated to the production of pasture, rangeland or CRP.

CIMARRON® is recommended for use on pastures, rangeland or CRP as well as selected uncultivated agricultural areas (fence rows, farmyards, and rights-of-way) directly adjacent to treated pastures or rangeland, where grazing or harvesting for animal feed may occur. Check with your state extension or Department of Agriculture before use, to be certain CIMARRON® is registered in your state.

Do not use CIMARRON® in the following counties of Colorado: Alamosa, Conejos, Costilla, RioGrande, and Saquache.

CIMARRON® is a dry-flowable granule that controls or suppresses broadleaf weeds and brush in pasture, rangeland and CRP. CIMARRON® is mixed in water or can be preslurried in water and added to liquid nitrogen carrier solutions and applied as a uniform broadcast spray. A spray adjuvant should be used in the spray mix unless otherwise specified on this label. CIMARRON® is noncorrosive, nonflammable, nonvolatile, and does not freeze.

CIMARRON® controls weeds by preemergence and postemergence activity. For best results, apply CIMARRON® to young, actively growing weeds. Weeds hardened off by cold weather or drought stress may not be controlled. The use rate depends upon the weed spectrum and size of weeds at application. The degree and duration of control may depend on the following factors:

- weed spectrum and infestation intensity
- weed size at application
- environmental condition at and following treatment

It is permissible to treat intermittently flooded low lying sites, seasonally dry flood plains and transitional areas between upland and lowland sites when no water is present. It is also permissible to treat marshes, swamps and bogs after water has receded as well as seasonally dry flood deltas. DO NOT make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams and canals.

#### **Environmental Conditions and Biological Activity**

CIMARRON® is absorbed through the foliage and roots of broadleaf weeds, rapidly inhibiting their growth. Leaves of susceptible plants appear chlorotic from 1 to 3 weeks after application and the growing point subsequently dies. The final effects on annual weeds are evident about 4 to 6 weeks after application. The ultimate effects on perennial weeds and

woody plants occur in the growing seasons following application.

One to two inches of rainfall or sprinkler irrigation (enough to wet the top 2-3 inches of soil profile) may be needed to move DuPont™ CIMARRON® into the weed root zone before the next flush of weeds emerge. The amount of moisture required for sufficient activation increases with crop or weed residue and for finer textured soils. Without sufficient rainfall or sprinkler irrigation to move CIMARRON® into the weed root zone, weeds that germinate after treatment will not be controlled.

Application of CIMARRON® provides the best control in vigorously growing grasses that shade competitive weeds. Weed control in areas of thin grass may not be as satisfactory. However, a grass canopy that is too dense at application can intercept spray and reduce weed control.

CIMARRON® is safe to grasses under normal conditions. However, grasses that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices may be injured by applications of CIMARRON®. In addition, different species of grass may be sensitive to treatment with CIMARRON® under otherwise normal conditions. Application of CIMARRON® to these species may result in injury.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds and brush hardened-off by drought stress are less susceptible to CIMARRON®.

Weed and brush control or suppression may be reduced if rainfall, snowfall or sprinkler irrigation occurs within 4 hours after application.

**APPLICATION INFORMATION FOR GRASS ESTABLISHMENT IN PASTURE, RANGELAND AND CONSERVATION RESERVE PROGRAM (CRP)**

CIMARRON® is recommended for the control or suppression of broadleaf weeds to aid in the establishment of the following perennial native or improved grasses planted in pasture, rangeland or acres enrolled in the Conservation Reserve Program (CRP):

- |                   |                 |
|-------------------|-----------------|
| Blue Grama        | Sideoats grama  |
| Bluestems -       | Switchgrass -   |
| big               | blackwell       |
| little            | Wheatgrasses -  |
| plains            | bluebunch       |
| sand              | crested         |
| WW spar           | intermediate    |
| Buffalograss      | pubescent       |
| Green sprangletop | Siberian        |
| Indiangrass       | slender         |
| Kleingrass        | streambank      |
| Lovegrasses -     | tail            |
| atherstone        | thickspike      |
| sand              | western         |
| weeping           | Wildrye grass - |
| wilman            | Russian         |
| Orchardgrass      |                 |

Maximize potential for grass establishment by consulting with the Natural Resources and Conservation Service or other local experts concerning planting techniques and other cultural practices.

Due to the inability of newly planted grass stands to sufficiently compete with weeds, and the severity of weed pressure in new grass stands, performance from CIMARRON® may not always be satisfactory. An additional herbicide application or mowing may be needed.

**Use Rates and Application Timing for Grass Establishment in Pasture, Rangeland and CRP**

**Preplant (prior to planting) or Preemergence (after planting but before grass emergence)**

Apply CIMARRON® preplant or preemergence at 1/10 ounce/acre on all labeled grasses except orchardgrass and Russian wildrye grass. Do not apply CIMARRON® preplant or preemergence to orchardgrass and Russian wildrye grass as severe crop injury may result.

**Early postemergence to new plantings**

Apply CIMARRON® at 1/10 ounce/acre, plus a non-ionic surfactant at the rate of 2 to 4 pints/100 gallons of spray solution on all labeled grasses anytime after grass emergence.

Do not use a spray adjuvant other than non-ionic surfactant.

Because grass species differ in time of emergence, apply only after majority of grasses are in the 3 to 4 leaf stage.

**Postemergence to stands with 1-5 leaf grasses planted the previous season**

Apply CIMARRON® at 1/10 ounce/acre plus a non-ionic surfactant at the rate of 2 to 4 pints/100 gallons of spray solution, on all labeled grasses when the majority of the grasses have one or more leaves.

Do not use a spray adjuvant other than non-ionic surfactant.

**APPLICATION INFORMATION FOR ESTABLISHED GRASSES IN PASTURES, RANGELAND AND CONSERVATION RESERVE PROGRAM (CRP)**

**Use Rates for Established Pastures, Rangeland and CRP**

Apply 1/10 to 1 ounce CIMARRON® per acre as a broadcast application to established grasses in pasture, rangeland and CRP. For spot applications, use 1 ounce per 100 gallons of water. Do not apply more than 1 2/3 ounces of CIMARRON® per acre per year.

**Application Timing—Established Pastures, Rangeland and CRP**

CIMARRON® may be applied to established native grasses such as bluestems and grama, and on other established pasture grasses such as bermudagrass, bluegrass, orchardgrass, bromegrass, fescue and timothy that were planted the previous growing season (or earlier) and are fully tillered, unless otherwise directed on this label. Specific application timing information on several of these grass species follows:

| Pasture Grass                           | Minimum time from grass establishment to DuPont™ CIMARRON® application |
|---|--|
| Bermudagrass                            | 2 months   |
| Bluegrass, bromegrass, and orchardgrass | 6 months   |
| Timothy                                 | 12 months  |
| Fescue                                  | 24 months  |

**Fescue Precautions:**

Note that CIMARRON® may temporarily stunt fescue, cause it to turn yellow, or cause seedhead suppression. To minimize these symptoms, take the following precautions:

- do not use more than 4/10 ounce/A of CIMARRON®
- tank mix CIMARRON® with 2,4-D
- use the lowest recommended rate for target weeds
- use a non-ionic surfactant at 1/2 to 1 pint per 100 gallons of spray solution (1/16 to 1/8% v/v)
- make application later in the spring after the new growth is 5 to 6 inches tall, or in the fall
- do not use surfactant when liquid nitrogen is used as a carrier
- do not use a spray adjuvant other than non-ionic surfactant

The first cutting yields may be reduced due to seedhead suppression resulting from treatment with CIMARRON®.

**Timothy Precautions:**

Timothy should be at least 6" tall at application and be actively growing. Applications of CIMARRON® to timothy under any other conditions may cause crop yellowing and/or stunting. To minimize these symptoms, take the following precautions:

- do not use more than 4/10 ounce/acre of CIMARRON®
- tank mix CIMARRON® with 2,4-D
- use the lowest recommended rate for target weeds
- use a non-ionic surfactant at 1/2 pint per 100 gallons (1/16% v/v)
- make applications in the late summer or fall
- do not use surfactant when liquid nitrogen is used as a carrier
- do not use a spray adjuvant other than non-ionic surfactant

**Application of CIMARRON® to Pensacola bahiagrass, ryegrass (Italian or perennial) and Garrison's creeping foxtail may cause severe injury to and/or loss of pastures.**

**Other Pasture and Rangeland Grasses:** Varieties and species of forage grasses differ in their tolerance to herbicides. When using CIMARRON® on a particular grass for the first time, limit use to a small area. If no injury

occurs throughout the season, larger acreage may be treated the following season.

Broadleaf pasture species, such as alfalfa and clover, are highly sensitive to CIMARRON® and will be severely stunted or injured by CIMARRON®.

**WEEDS AND BRUSH CONTROLLED OR SUPPRESSED IN PASTURES, RANGELAND OR CRP**

Unless otherwise directed, treat when weeds are less than 4" tall or in diameter and are actively growing.

Before using CIMARRON®, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your pasture, rangeland or CRP acres at the same time.

**1/10 ounce per acre**

|                                  |                                    |
|----------------------------------|------------------------------------|
| Bitter sneezeweed                | Marestail                          |
| Blue/purple mustard*             | Mayweed chamomile                  |
| Broomweed, common                | Miners lettuce                     |
| Bur buttercup (testiculate)      | Pigweed (redroot, smooth, tumble)  |
| Buttercup                        | Plains coreopsis                   |
| Canada thistle*‡                 | Plantain                           |
| Carolina geranium                | Prickly lettuce*                   |
| Coast fiddleneck (tarweed)       | Prostrate knotweed*‡               |
| Common chickweed                 | Russian thistle*                   |
| Common mullein                   | Shepherd's purse                   |
| Common purslane                  | Smallseed falseflax                |
| Conical catchfly                 | Smartweed (green, ladythumb, pale) |
| Corn gromwell*‡                  | Snow speedwell                     |
| Cowcockle                        | Tansymustard*                      |
| Curly dock                       | Treacle mustard (Bushy Wallflower) |
| Cutleaf evening primrose*‡       | Tumble/Jim Hill mustard            |
| Dandelion                        | Volunteer sunflower*               |
| False chamomile                  | Waterpod                           |
| Field pennycress (fanweed)       | Wild buckwheat*‡                   |
| Filaree                          | Wild garlic*                       |
| Flixweed*                        | Wild mustard                       |
| Groundsel (common)               | Wild sunflower*‡                   |
| Henbit                           | Woolly croton*                     |
| Kochia*                          |                                    |
| Lambsquarters (common, slimleaf) |                                    |

**2/10 ounce per acre**

|                   |                     |
|-------------------|---------------------|
| Annual marshelder | Horsemint (beebalm) |
| Blackeyed-Susan   | Musk thistle*       |
| Buckbrush‡        | Purple scabious     |
| Burclover         | Scotch thistle*     |
| Common yarrow     | Western snowberry‡  |
| Dogfennel         | Wild carrot         |

9 8 16

**3/10 to 1/2 ounce per acre**

|                        |                       |
|------------------------|-----------------------|
| Annual sowthistle      | Pensacola bahiagrass* |
| Aster                  | Redstem filaree       |
| Bittercress            | Rough fleabane        |
| Chicory                | Seaside arrowgrass    |
| Clover                 | Sericea lespedeza*    |
| Cocklebur              | Silky crazyweed       |
| Corn cockle            | (locoweed)            |
| Crown vetch            | Sweet clover          |
| Goldenrod              | Wild lettuce          |
| Maximillion sunflower  | Wood sorrel           |
| Multiflora rose*‡      | Yankeweed             |
| Pennsylvania smartweed |                       |

**1/2 to 1 ounce per acre**

|                   |                           |
|-------------------|---------------------------|
| Black henbane     | Honeysuckle               |
| Blackberry        | Multiflora rose and other |
| Broom snakeweed*  | wild roses*               |
| Buckhorn plantain | Plumeless thistle         |
| Common crupina    | Rosering gaillardia       |
| Dewberry          | Spotted knapweed*         |
| Dyer's woad       | Teasel                    |
| Garlic            | Wild caraway              |
| Halogeton         | Yucca*‡                   |

**1 ounce per acre**

|                      |                        |
|----------------------|------------------------|
| Bull thistle         | Rush skeletonweed*‡    |
| Common tansy         | Salsify                |
| Field bindweed‡      | Scouringrush           |
| Gumweed              | Snowberry              |
| Houndstongue         | St. Johnswort          |
| Perennial Pepperweed | Western salsify        |
| Poison hemlock       | Whitetop (hoary cress) |
| Purple loosestrife   |                        |

\* See the **Specific Weed Problems** section.

‡ **Weed suppression** is a reduction in weed competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

**SPOT APPLICATIONS FOR THE SUPPRESSION‡ OF WEEDS AND BRUSH APPLICATION INFORMATION FOR SPOT APPLICATIONS**

DuPont™ CIMARRON® is recommended for the suppression of the following undesirable weed and brush species growing in pastures, rangeland or CRP using spot applications. Spot applications may be made by using equipment such as back pack sprayers or hand sprayers. CIMARRON® should be applied as a spray to the foliage and stems. The application volume required will vary with the height and density of the brush and the application equipment used. Regardless of the application volume and equipment used, thorough coverage of the foliage and stems is necessary to optimize results. On tall, dense stands, it is often necessary to spray from both sides to obtain adequate coverage. Add a non-ionic surfactant having at least 80% active ingredient at 2-4 pints per 100 gallons of spray solution.

**Use Rates for Spot Applications**

Mix 1 ounce of CIMARRON® per 100 gallons of water.

**Application Timing for Spot Applications**

Make a foliar application of the recommended rate of CIMARRON® during the period from full leaf expansion in the spring until the development of full fall coloration.

**Weed and Brush Species Suppressed with Spot Applications**

|                  |                   |
|------------------|-------------------|
| Blackberry‡      | Dewberry‡         |
| Canada Thistle*‡ | Multiflora Rose*‡ |

\* See the **Specific Weed Problems** section.

‡ Weed and brush suppression is a reduction in weed and brush competition (reduced population and/or vigor) as visually compared to an untreated area. The degree of suppression varies with the rate used, the size of the weeds, and the environmental conditions following treatment.

**SPECIFIC WEED PROBLEMS**

**Note:** Thorough spray coverage of all weed species listed below is very important.

**Blue/Purple Mustard, Flixweed, and Tansymustard:** For best results, apply CIMARRON® tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom.

**Broom Snakeweed:** For best results, apply CIMARRON® at 1/2 ounce/acre in the fall. Applications of CIMARRON® in the spring will provide suppression only.

**Canada Thistle:** For suppression with broadcast applications, apply either CIMARRON® or CIMARRON® plus 2,4-D or MCPA in the spring after the majority of thistles have emerged and are small (rosette stage to 6" elongating stems) and actively growing. The application will inhibit the ability of emerged thistles to compete with grass.

For suppression with spot applications, apply as a foliar spray once plant is fully leafed.

**Corn Gromwell, Cutleaf Evening Primrose and Prostrate Knotweed:** Apply CIMARRON® when weeds are actively growing, are no larger than 2" tall, and when crop canopy will allow thorough coverage. Tank mixing 2,4-D or MCPA with CIMARRON® can improve results.

**Kochia, Russian thistle, Prickly lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use CIMARRON® in a tank mix with dicamba (such as "Banvel" or "Clarity") and 2,4-D. CIMARRON® should be applied in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing.

**Multiflora Rose:** For control with broadcast applications, apply CIMARRON® at 1/2 ounce per acre as a broadcast application. For control with foliar applied spot applications, apply CIMARRON® at 1 ounce per 100 gallons of water.

For suppression with broadcast applications, apply DuPont™ CIMARRON® at rates of 3/10 up to 1/2 ounce per acre. Applications should be made in the spring, soon after multiflora rose is fully leafed and is less than 3 feet tall.

For control with Spotgun Basal Soil Treatment, prepare a spray suspension of CIMARRON® by mixing 1 ounce per gallon water. Mix vigorously until the CIMARRON® is dispersed and agitate periodically while applying the spray suspension. Apply the spray preparation with an exact delivery handgun applicator. Apply at the rate of 4 milliliters for each 2 feet of rose canopy diameter. Direct the treatment to the soil within 2 feet of the stem union. When treating large plants and more than one delivery is required, make applications on opposite sides of the plant.

Applications should be made from early spring to summer.

**Musk Thistle, Scotch Thistle:** Apply CIMARRON® at 2/10 to 3/4 ounce per acre in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Certain biotypes of Musk and Scotch Thistles are less sensitive to CIMARRON® and may not be controlled with CIMARRON® rates less than 3/4 ounce per acre. Consult with your local DuPont representative, dealer or applicator for specific use rate and tank mix recommendations for your area. Fall applications should be made before the soil freezes.

**Pensacola bahiagrass control in established Bermudagrass pasture:** Apply CIMARRON® at 3/10 ounce per acre after green-up in the spring but before bahiagrass seedhead formation. Application should be made when moisture is sufficient to enhance grass growth.

CIMARRON® is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, the use of CIMARRON® can clear the areas of useful forage until the bermudagrass has time to cover the area. Therefore, CIMARRON® treatments should be spread out over a period of years. Do not apply to an entire farm or ranch in one year. Fertilization (particularly with nitrogen and potassium) and/or replanting may accelerate the process of reestablishment of bermudagrass.

Under heavy bahiagrass pressure, grazing pressure, or adverse weather conditions (heat and drought), bahiagrass regrowth may occur.

CIMARRON® should not be used for the control of common or Argentine bahiagrass. Also, CIMARRON® should not be applied in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

**Rush skeletonweed:** For best results, apply CIMARRON® at 1 ounce per acre with 8 fluid ounces of dicamba (such as "Banvel" or "Clarity") and 16 fluid ounces of 2,4-D.

**Sericea lespedeza:** For best results, apply CIMARRON® at 4/10 to 1/2 ounce per acre beginning at flower bud initiation through the full bloom stage of growth. Consult with your local DuPont representative, dealer or applicator for specific use rate recommendations for your area. Do not make applications if drought conditions exist at intended time of application.

**Spotted Knapweed:** For best results, apply CIMARRON® at 1/2 ounces per acre with 8 fluid ounces of dicamba (such as "Banvel" or "Clarity") and 16 ounces active ingredient per acre of 2,4-D.

**Sunflower (wild or volunteer):** Apply either CIMARRON® or CIMARRON® plus 2,4-D or MCPA after the majority of sunflowers have emerged, are 2" to 4" tall and are actively growing. Use spray volumes of at least 3 gallons by air or 10 gallons by ground.

**Wild Buckwheat:** For best results, apply CIMARRON® plus 2,4-D or MCPA when plants have no more than 3 true leaves (not counting the cotyledons). If plants are not actively growing, delay treatment until environmental conditions favor active weed growth.

**Wild Garlic:** Apply 1/10 to 2/10 ounce per acre of CIMARRON® in the early spring when wild garlic is less than 12" tall with 2" to 4" of new growth.

**Woolly Croton:** Apply 1/10 to 2/10 ounce per acre of CIMARRON® in the late spring or early summer from cotyledon through 2 true leaf stage.

**Yucca:** For best results, apply CIMARRON® at 1/2 to 3/4 ounce per acre plus 2,4-D, dicamba, dicamba plus 2,4-D, or "Remedy" from two weeks before blooming to two weeks after blooming.

### Spray Adjuvants

Unless otherwise directed, applications of CIMARRON® must include either a crop oil concentrate or a nonionic surfactant. In addition, an ammonium nitrogen fertilizer can be used unless specifically prohibited by tank mix partner labeling. Consult local DuPont fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with CIMARRON®, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

### Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- MSO adjuvants may be used at 0.5% v/v (0.5 gallons per 100 gallons spray solution) if specifically noted on adjuvant product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

### Nonionic Surfactant (NIS)

- Apply at 0.25% v/v (1 quart per 100 gallons spray solution) or 0.5% under arid conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

### Ammonium Nitrogen Fertilizer

- Use 2 quarts/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 pounds/acre of a spray grade ammonium sulfate (AMS). Use 4 quarts/acre UAN or 4 pounds/acre AMS under arid conditions.

**Special Adjuvant Types**

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by DuPont. Consult separate DuPont technical bulletins for detailed information before using adjuvant types not specified on this label.

**Exceptions:** (1) On Fescue pastures use 1/2 to 1 pint non-ionic surfactant per 100 gallons; (2) on Timothy pastures use 1/2 pint non-ionic surfactant per 100 gallons.

Antifoaming agents may be used if needed.

**Do not use low rates of liquid fertilizer as a substitute for surfactant .**

**Ground Application**

To obtain optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

For flood nozzles on 30" spacings, use at least 10 gallons per acre (GPA), flood nozzles no larger than TK10 (or equivalent), and a pressure of at least 30 pounds per square inch (psi). For 40" nozzle spacings, use at least 13 GPA; for 60" spacings, use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

With "Raindrop RA" nozzles, use at least 30 GPA and ensure that nozzle spray patterns overlap 100%.

For flat-fan nozzles, use at least 10 GPA for broadcast applications to pasture, rangeland or CRP.

Use 50-mesh screens or larger.

**Aerial Application**

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage.

Use a minimum of 2 GPA. In Idaho, Oregon and Washington use a minimum of 3 GPA.

When applying DuPont™ CIMARRON® by air in areas adjacent to sensitive crops, use solid stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields. See the **Spray Drift Management** section of this label.

**Product Measurement**

CIMARRON® is measured using the CIMARRON® volumetric measuring cylinder. The degree of accuracy of this cylinder varies by +/- 7.5%. For more precise measurement, use scales calibrated in ounces.

**TANK MIXTURES**

*With Insecticides and Fungicides*

CIMARRON® may be tank mixed or used sequentially with insecticides and fungicides registered for use on pastures, rangeland or CRP.

However, under certain conditions (drought stress or cold weather), tank mixes or sequential applications of CIMARRON® with organophosphate insecticides (such as parathion) may produce temporary grass yellowing or, in severe cases, grass injury.

The potential for grass injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application.

Test these mixtures in a small area before treating large areas.

Do not use CIMARRON® plus Malathion, as grass injury will result.

*With Herbicides*

CIMARRON® may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to CIMARRON®, or weeds not listed under **Weeds Controlled**. Read and follow all manufacturer's label recommendations for the companion herbicide. *If those recommendations conflict with this label, do not tank mix the herbicide with CIMARRON®.*

**Herbicide Tank Mixtures for Pastures or Rangeland:**

For postemergence control of the following weeds in pastures or rangeland:

|                      |                 |
|----------------------|-----------------|
| Annual marshelder    | Common milkweed |
| Burclover            | Common ragweed  |
| Carolina horsenettle | Giant ragweed   |
| Common cocklebur     | Western ragweed |

Apply CIMARRON® at 1/10 to 1 ounce per acre in a tank mix with one of the following products. Refer to companion herbicide labels to confirm that the product is labeled for control of the weeds listed above and is registered for use in your state.

| Product      | Rate (ounce product/A) |
|--------------|------------------------|
| "Grazon" P+D | 8 to 32                |
| "Tordon" 22K | 4 to 16                |
| "Weedmaster" | 8 to 32                |
| "Remedy"     | 8                      |
| "Amber"      | 0.35*                  |

\* For suppression of Western Ragweed in Phenoxy Restricted and Herbicide Regulated Counties

| Product                                 | Rate (ounce A.I./A)   |
|---|-----------------------|
| 2,4-D                                   | 8 to 16               |
| Dicamba (such as "Banvel" or "Clarity") | 2 to 16               |
| 2,4-D + Dicamba                         | 1 + 2.87 to 4 + 11.48 |

**Herbicide Tank Mixtures for CRP:**

**Preplant**

CIMARRON® may be tank mixed with glyphosate (such as DuPont™ Glyphosate or "Roundup Ultra Max") as a pre-plant

(prior to the planting of CRP grasses) treatment to control broadleaf and grassy weeds. When using a glyphosate tank mix, allow at least 7 days after application before planting grasses. Refer to glyphosate containing product fact sheets and labels for all use instructions, label rates, weed control claims, warnings and precautions.

**Postemergence**

For best weed control performance in CRP, use DuPont™ CIMARRON® in a tank mix with 2,4-D (ester formulations perform best) or dicamba (such as “Banvel” or “Clarity”).

CIMARRON® can be tank mixed with 2,4-D at 1/4 pound a.i./A for all labeled grasses larger than the 5-leaf stage. For fully tillered stands, up to 1/2 pound a.i./A of 2,4-D may be used. A spray adjuvant may be added. However, the addition of spray adjuvant may increase the chance of grass injury.

CIMARRON® can also be tank mixed with dicamba (such as “Banvel” or “Clarity”). Use not more than 1/8 to 1/4 pound a.i./A of dicamba plus CIMARRON® after majority of grasses are in the 3-leaf stage. In established grasses (2nd year stands), use not more than 1/4 to 1/2 pound a.i./A dicamba plus CIMARRON®. A spray adjuvant may be added. However, the addition of spray adjuvant may increase the chance of grass injury.

**With Liquid Nitrogen Solution Fertilizer**

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing CIMARRON® in fertilizer solution.

CIMARRON® must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the

agitator is running while the CIMARRON® is added. Use of this mixture may result in temporary grass yellowing and stunting.

If using low rates of liquid nitrogen fertilizer (between 5% and 50% of the spray solution volume) in the spray solution, the addition of a non-ionic surfactant is necessary. Add surfactant at 1/4 pint per 100 gallons of spray solution (0.03% v/v).

Do not use a spray adjuvant other than non-ionic surfactant.

When using high rates of liquid nitrogen fertilizer (greater than or equal to 50% of the spray solution volume) in the spray solution, adding spray adjuvant(s) increases the risk of grass injury. Consult your agricultural dealer, consultant, fieldman, or DuPont representative for a specific recommendation before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with CIMARRON® and liquid nitrogen fertilizer mixture, ester formulations tend to be more compatible (See manufacturer’s label). Do not add spray adjuvants when using CIMARRON® in tank mix with 2,4-D ester and liquid nitrogen fertilizer solutions greater than 5% of the spray volume.

The use of liquid nitrogen fertilizer solutions greater than 5% of the spray volume with CIMARRON® rates greater than 0.5 ounce/acre may cause grass injury.

Do not use low rates of liquid fertilizer as a substitute for spray adjuvants.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

**Rotation Intervals in Pasture, Rangeland or CRP for Overseeding and Renovation**

| Location   | Crop or Grass Species   | Maximum CIMARRON® Rate on Pasture (ounce/acre) | Minimum Rotation Interval (months) |
|--|---|--|------------------------------------|
| AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV                                     | Alfalfa, red clover, white clover, sweet clover, bermudagrass, bluegrass, ryegrass, tall fescue             | 1/10 to 3/10                                   | 4                                  |
|  | Wheat (except durum)  | 1/10 to 3/10                                   | 1                                  |
|  | Durum, barley, oat  | 1/10 to 3/10                                   | 10                                 |
| ALL STATES NOT INCLUDED ABOVE  | Red clover, white clover, and sweet clover  | 1/10 to 2/10                                   | 12                                 |
|  | Bermudagrass, bluegrass, ryegrass   | 1/10 to 2/10                                   | 6                                  |
|  | Tall Fescue   | 1/10 to 2/10                                   | 18                                 |
|  | Wheat (except durum)  | 1/10 to 2/10                                   | 1                                  |
|  | Durum, barley, oat  | 1/10 to 2/10                                   | 10                                 |
| ALL AREAS WITH SOIL PH OF 7.5 OR LESS  | Russian wildrye   | 1/10 to 1/2                                    | 1                                  |
|  | Green needlegrass, switchgrass, sheep fescue  | 1/10 to 1                                      | 1                                  |
|  | Meadow brome, smooth brome, alta fescue, red fescue, meadow foxtail, orchardgrass, Russian wildrye, timothy | 1/10 to 1                                      | 2                                  |
|  | Alkali sacaton, mountain brome, blue grama thickspike wheatgrass  | 1/10 to 1                                      | 1                                  |
| ALL AREAS WITH SOIL PH OF 7.9 OR LESS  | Sideoats grama, switchgrass   | 1/10 to 1/2                                    | 2                                  |
|  | Western wheatgrass  | 1/10 to 1                                      | 2                                  |
|  | Sideoats grama, switchgrass, big bluestem   | 1/10 to 1                                      | 3                                  |
|  | STs soybeans  | 1/10 to 2/10                                   | 6                                  |
| AL, AR, FL, GA, KS, KY, LA, MS, MO, NC, OK, SC, TN, TX, VA, WV WITH SOIL PH OF 7.0 OR LESS | Field corn  | 1/10 to 2/10                                   | 12                                 |

## CROP ROTATION

Before using DuPont™ CIMARRON®, carefully consider your crop rotation plans and options. For rotational flexibility, do not treat all of your pasture, rangeland or CRP acres at the same time.

### Minimum Rotational Intervals

Minimum rotation intervals\* are determined by the rate of breakdown of CIMARRON® applied. CIMARRON® breakdown in the soil is affected by soil pH, presence of soil microorganisms, soil temperature, and soil moisture. Low soil pH, high soil temperature, and high soil moisture increase CIMARRON® breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow CIMARRON® breakdown.

Of these 3 factors, only soil pH remains relatively constant. Soil temperature, and to a greater extent, soil moisture, can vary significantly from year to year and from area to area. For this reason, soil temperatures and soil moisture should be monitored regularly when considering crop rotations.

\* The minimum rotation interval represents the period of time from the last application to the anticipated date of the next planting.

### Soil pH Limitations

CIMARRON® should not be used on soils having a pH above 7.9, as extended soil residual activity could extend crop rotation intervals beyond normal. Under certain conditions, CIMARRON® could remain in the soil for 34 months or more, injuring wheat and barley. In addition, other crops planted in high-pH soils can be extremely sensitive to low concentrations of CIMARRON®.

### Checking Soil pH

Before using CIMARRON®, determine the soil pH of the areas of intended use. To obtain a representative pH value for the test area, take several 0" to 4" samples from different areas of the field and analyze them separately. Consult local extension publications for additional information on recommended soil sampling procedures.

## BIOASSAY

A field bioassay must be completed before rotating to any crop or grass species/variety not listed in the Rotation Intervals Table, or if the soil pH is not in the specified range, or if the use rate applied is not specified in the table.

To conduct a field bioassay, grow test strips of the crop(s) or grass(es) you plan to grow the following year in fields previously treated with CIMARRON®. Crop or grass response to the bioassay will indicate whether or not to rotate to the crop(s) or grass(es) grown in the test strips.

If a field bioassay is planned, check with your local Agricultural dealer or DuPont representative for information detailing the field bioassay procedure.

## GRAZING/HAYING

There are no grazing or haying restrictions for CIMARRON®.

Coveralls, shoes plus socks must be worn if cutting within 4 hours of treatment.

## MIXING INSTRUCTIONS

1. Fill the tank 1/4 to 1/3 full of water (If using liquid nitrogen fertilizer solution in place of water, see Tank Mixtures sections for additional details).
2. While agitating, add the required amount of CIMARRON®.
3. Continue agitation until the CIMARRON® is fully dispersed, at least 5 minutes.
4. Once the CIMARRON® is fully dispersed, maintain agitation and continue filling tank with water. CIMARRON® should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add tank mix partners (if desired) then add the necessary volume of spray adjuvants. Always add spray adjuvants last.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply CIMARRON® spray mixture within 24 hours of mixing to avoid product degradation.
8. If CIMARRON® and a tank mix partner are to be applied in multiple loads, pre-slurry the CIMARRON® in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the CIMARRON®.

Do not use CIMARRON® with spray additives that reduce the pH of the spray solution to below 3.0.

## SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when the crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping to avoid crop injury.

Do not make applications using equipment and/or spray volumes or under weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift, refer to the **Spray Drift Management** section of the label.

Continuous agitation is required to keep CIMARRON® in suspension.

## SPRAYER CLEANUP

Spray equipment must be cleaned before CIMARRON® is sprayed. Follow the cleanup procedures specified on the labels of previously applied products. If no directions are provided, follow the six steps outlined in **After Spraying CIMARRON®** section of this label.

**At the End of the Day**

When multiple loads of DuPont™ CIMARRON® herbicide are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits that can accumulate in the application equipment.

**After Spraying CIMARRON® and Before Spraying Crops Other Than Pasture, Rangeland or CRP**

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of CIMARRON® as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gallon of household ammonia\* (contains 3% active) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) recommended on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

\* Equivalent amounts of an alternate-strength ammonia solution or a DuPont-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or DuPont representative for a listing of approved cleaners.

**Notes:**

1. **Attention:** Do not use chlorine bleach with ammonia, as dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When CIMARRON® is tank mixed with other pesticides, all required cleanout procedures should be examined and the most rigorous procedure should be followed.
4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of CIMARRON® and applications of other pesticides to

CIMARRON®-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to CIMARRON® to further reduce the chance of crop injury.

**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 (>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 **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

**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** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

**BOOM HEIGHT**

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment,

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 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 affect 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.

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature 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 an 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.

**WEED RESISTANCE**

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

**INTEGRATED PEST MANAGEMENT**

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

**PRECAUTIONS**

- Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots extend, or in locations where the product may be washed or moved into contact with their roots, as injury or loss of desirable trees or other plants may result.
- Do not use on lawns, walks, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- Do not use on grasses grown for seed.
- Do not apply to irrigated land where the tailwater will be used to irrigate crops.
- Do not apply to frozen ground as surface runoff may occur.
- Do not apply to snow-covered ground.
- Grass species or varieties may differ in their response to various herbicides. DuPont recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of DuPont™ CIMARRON® to a small area. Components in a grass seed mixture will vary in tolerance to CIMARRON® so the final stand may not reflect the seed ratio.
- Under certain conditions such as heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after CIMARRON® application, temporary discoloration and/or grass injury may occur. CIMARRON® should not be applied to grass that is stressed by severe weather conditions, drought, low fertility, water-saturated soil, disease, or insect damage, as grass injury may result. Severe winter stress, drought, disease, or insect damage before or following application also may result in grass injury.
- Applications of CIMARRON® to pastures, rangeland or CRP undersown with legumes may cause injury to the legumes. Legumes in a seeding mixture may be severely injured or killed following an application of CIMARRON®.

- To reduce the potential for movement of treated soil due to wind erosion, do not apply to powdery dry or light sandy soils until they have been stabilized by rainfall, trashy mulch, reduced tillage, or other cultural practices. Injury to immediately adjacent crops may occur when treated soil is blown onto land used to produce crops other than pasture, rangeland or CRP.
- For ground applications applied to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. The addition of 2,4-D or MCPA should improve weed control under these conditions.
- Do not apply more than 1 2/3 ounces of DuPont™ CIMARRON® per acre per year.

**STORAGE AND DISPOSAL**

**Pesticide Storage:** Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage.

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

**Container Disposal: For Plastic Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. **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.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

The DuPont Oval Logo, DuPont™ and CIMARRON® are trademarks or registered trademarks of E. I. duPont de Nemours and Company.

"Banvel"; "Clarity" and "Weedmaster" are trademarks or registered trademarks of BASF Corporation

"Grazon"; Remedy" and "Tordon" are registered trademarks of Dow AgroSciences LLC

"Raindrop RA" is a trademark of Delavan Corp.

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

"Roundup UltraMax" is a registered trademark of Monsanto Technology LLC"

**D - 1115 051506**

**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.**

**TO THE FULLEST EXTENT PERMITTED BY LAW, 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/>

© 2002-2006 E. I. du Pont de Nemours and Company, Wilmington, Delaware 19898.

All rights reserved.