



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 10, 2019

Annette M. Bloomberg
Regulatory Product Manager
Bayer CropScience
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

Subject: Registration Review Label Mitigation for Metsulfuron
Product Name: Cimarron Herbicide
EPA Registration Number: 432-1556
Application Date: December 13, 2017
Decision Number: 550265

Dear Ms. Bloomberg:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Metsulfuron Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Miguel Zavala by phone at 703-347-0504, or via email at zavala.miguel@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

CIMARRON® HERBICIDE

Dry Flowable

For use on Pastures, Rangeland, or CRP

Active Ingredient	By Weight
Metsulfuron-Methyl	
Methyl 2-[[[(4-methoxy-6-methyl -1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl] benzoate	60%
Other Ingredients	40%
Total	100%

EPA Reg. No. 432-1556

EPA Est.No.

Nonrefillable Container

Net:

OR

Refillable Container

Net:

ACCEPTED

05/10/2019

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 432-1556

KEEP OUT OF REACH OF CHILDREN CAUTION

See [Back][Side] Panel for First Aid Instructions and [Leaflet][Booklet] for Complete Precautionary Statements and Directions for Use.
(Note to reviewer: Location of additional precautionary statements, directions for use will vary between those listed, depending on container type/size.)

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 1-800-334-7577 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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 exist, 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. 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.

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 when disposing of equipment washwaters or rinsate.

GROUNDWATER ADVISORY

Metsulfuron-methyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

SURFACE WATER ADVISORY

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of metsulfuron-methyl from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hour.

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

WINDBLOWN SOIL PARTICLES

CIMARRON® HERBICIDE has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying CIMARRON® HERBICIDE if prevailing local conditions may be expected to result in off-site movement.

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

CIMARRON® HERBICIDE must be used only in accordance with directions on this label or in separate published BAYER CROPSCIENCE LP directions.

BAYER CROPS SCIENCE LP will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by BAYER CROPS SCIENCE LP.

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

PRODUCT INFORMATION

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

CIMARRON® HERBICIDE is registered 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® HERBICIDE is registered in your state.

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

CIMARRON® HERBICIDE is a dry-flowable granule that controls or suppresses broadleaf weeds and brush in pasture, rangeland, and CRP. CIMARRON® HERBICIDE 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® HERBICIDE is noncorrosive, nonflammable, nonvolatile, and does not freeze.

CIMARRON® HERBICIDE controls weeds by preemergence and postemergence activity. For best results, apply CIMARRON® HERBICIDE 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® HERBICIDE 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 CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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® HERBICIDE. In addition, different species of grass may be sensitive to treatment with CIMARRON® HERBICIDE under otherwise normal conditions. Application of CIMARRON® HERBICIDE 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® HERBICIDE.

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® HERBICIDE is registered 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	Indiangrass	Sideoats grama	Siberian
Blue-stems -	Kleingrass	Switchgrass -	slender
big	Lovegrasses -	blackwell	streambank
little	atherstone	Wheatgrasses -	tall
plains	sand	bluebunch	thickspike
sand	weeping	crested	western
WW spar	wirlan	intermediate	Wildrye grass -
Buffalograss	Orchardgrass	pubescent	Russian
Green sprangletop			

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

Early postemergence to new plantings

Apply CIMARRON® HERBICIDE 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® HERBICIDE 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 to CIMARRON® HERBICIDE 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® HERBICIDE (0.063 pounds of the active ingredient metsulfuron-methyl) per acre per year.

Application Timing-Established Pastures, Rangeland, and CPR

CIMARRON® HERBICIDE 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 CIMARRON® HERBICIDE application
Bermudagrass	2 months
Bluegrass, bromegrass, and orchardgrass	6 months
Timothy	12 months
Fescue	24 months

Fescue Precautions:

Note that CIMARRON® HERBICIDE 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® HERBICIDE.
- Tank mix CIMARRON® HERBICIDE 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® HERBICIDE.

Timothy Precautions:

Timothy should be at least 6" tall at application and be actively growing. Applications of CIMARRON® HERBICIDE 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® HERBICIDE.
- Tank mix CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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® HERBICIDE and will be severely stunted or injured by CIMARRON® HERBICIDE.

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

2/10 ounce per acre

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

3/10 to 1/2 ounce per acre

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

1/2 to 1 ounce per acre

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

1 ounce per acre

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

* 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

CIMARRON® HERBICIDE is registered 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® HERBICIDE 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® HERBICIDE per 100 gallons of water.

Application Timing for Spot Applications

Make a foliar application of the specified rate of CIMARRON® HERBICIDE 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 [‡]	Canada Thistle ^{*‡}	Dewberry [‡]	Multiflora Rose ^{*‡}
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* 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® HERBICIDE tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom.

Broom Snakeweed: For best results, apply CIMARRON® HERBICIDE at 112 ounce/acre in the fall. Applications of CIMARRON® HERBICIDE in the spring will provide suppression only.

Canada Thistle: For suppression with broadcast applications, apply either CIMARRON® HERBICIDE or CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE can improve results.

Kochia, Russian thistle, Prickly lettuce: Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use CIMARRON® HERBICIDE in a tank mix with dicamba (such as "Banvel" or "Clarity") and 2,4-D. CIMARRON® HERBICIDE 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® HERBICIDE at 1/2 ounce per acre as a broadcast application. For control with foliar applied spot applications, apply CIMARRON® HERBICIDE at 1 ounce per 100 gallons of water.

For suppression with broadcast applications, apply CIMARRON® HERBICIDE 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® HERBICIDE by mixing 1 ounce per gallon water. Mix vigorously until the CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE and may not be controlled with CIMARRON® HERBICIDE rates less than 3/4 ounce per acre. Consult with your local BAYER CROPS SCIENCE LP 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® HERBICIDE 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® HERBICIDE is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, the use of CIMARRON® HERBICIDE can clear the areas of useful forage until the bermudagrass has time to cover the area. Therefore, CIMARRON® HERBICIDE 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® HERBICIDE should not be used for the control of common or Argentine bahiagrass. Also, CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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 BAYER CROPSCIENCE LP 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® HERBICIDE 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® HERBICIDE or CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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® HERBICIDE in the late spring or early summer from cotyledon through 2 true leaf stage

Yucca: For best results, apply CIMARRON® HERBICIDE 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® HERBICIDE 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 BAYER CROPSCIENCE LP fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with CIMARRON® HERBICIDE, 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 BAYER CROPS SCIENCE LP. Consult separate BAYER CROPS SCIENCE LP 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, 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 CIMARRON® HERBICIDE 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® HERBICIDE is measured using the CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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® HERBICIDE plus Malathion, as grass injury will result.

With Herbicides

CIMARRON® HERBICIDE may be tank mixed with other suitable registered herbicides to control weeds listed under **Weeds Suppressed**, weeds resistant to CIMARRON® HERBICIDE, 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.

Herbicide Tank Mixtures for Pastures or Rangeland:

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

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

Apply CIMARRON® HERBICIDE 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® HERBICIDE 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 CIMARRON® HERBICIDE in a tank mix with 2,4-D (ester formulations perform best) or dicamba (such as "Banvel" or "Clarity").

CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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® HERBICIDE. 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® HERBICIDE in fertilizer solution.

CIMARRON® HERBICIDE 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® HERBICIDE 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 BAYER CROPSCIENCE LP representative for a specific recommendation before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with CIMARRON® HERBICIDE and liquid nitrogen fertilizer mixture, ester formulations tend to be more compatible (See manufacturer's label). Do not add spray adjuvants when using CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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, berrnudagrass, bluegrass, ryegrass, tall fescue	1/10 to 3/10	4
	Wheat (except durum)	1/10 to 3/10	1
	Drirum, 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
	Berrnudagrass, 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 wildrey, timothy	1/10 to 1	2
ALL AREAS WITH SOIL PH OF 7.9 OR LESS	Alkali sacaton, mountain brome, blue grama thickspike wheatgrass	1/10 to 1	1
	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
AL, AR, FL, GA, KS, KY, LA, MS, MO, NC, OK, SC, TN, TX, VA, WV WITH SOIL PH OF 7.0 OR LESS	STS soybeans	1/10 to 2/10	6
	Field corn	1/10 to 2/10	12

CROP ROTATION

Before using CIMARRON® HERBICIDE, 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® HERBICIDE applied. CIMARRON® HERBICIDE 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® HERBICIDE breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE 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® HERBICIDE.

Checking Soil pH

Before using CIMARRON® HERBICIDE, 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® HERBICIDE. 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 BAYER CROPS SCIENCE LP representative for information detailing the field bioassay procedure.

GRAZING/HAYING

There are no grazing or haying restrictions for CIMARRON® HERBICIDE.

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® HERBICIDE.
3. Continue agitation until the CIMARRON® HERBICIDE is fully dispersed, at least 5 minutes.
4. Once the CIMARRON® HERBICIDE is fully dispersed, maintain agitation and continue filling tank with water. CIMARRON® HERBICIDE 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® HERBICIDE spray mixture within 24 hours of mixing to avoid product degradation.
8. If CIMARRON® HERBICIDE and a tank mix partner are to be applied in multiple loads, pre-slurry the CIMARRON® HERBICIDE in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the CIMARRON® HERBICIDE.

Do not use CIMARRON® HERBICIDE 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® HERBICIDE in suspension.

SPRAYER CLEANUP

Spray equipment must be cleaned before CIMARRON® HERBICIDE 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® HERBICIDE** section of this label.

At the End of the Day

When multiple loads of 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® HERBICIDE 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® HERBICIDE 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 BAYER CROPS SCIENCE LP-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or BAYER CROPS SCIENCE LP 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® HERBICIDE 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® HERBICIDE and applications of other pesticides to CIMARRON® HERBICIDE-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to CIMARRON® HERBICIDE to further reduce the chance of crop injury.

WEED RESISTANCE MANAGEMENT

CIMARRON® HERBICIDE contains the active ingredients metsulfuron-methyl which is a Group 2 Herbicides based on the mode of action classification system of the Weed Science Society of America. 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.

Follow the best management practices listed below to delay the development of herbicide resistant weeds.

- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.
- Report any incidence of non-performance of this product against a particular weed species to your Bayer distributor, Bayer representative or call 1-800-331-2867.
- If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.
- Use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- To the extent possible, do not allow weed escapes to produce seeds, roots, or tubers.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weeds in the field.

- Use a broad spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program.
- Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or target vegetation unless making an industrial turf, pasture and rangeland applications, in which case applicators may apply with a nozzle height no more than 4 feet above the crop or target vegetation.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

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.

RESTRICTIONS AND 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. BAYER CROPSOURCE LP 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 CIMARRON® HERBICIDE to a small area. Components in a grass seed mixture will vary in tolerance to CIMARRON® HERBICIDE 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® HERBICIDE application, temporary discoloration and/or grass injury may occur. CIMARRON® HERBICIDE 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® HERBICIDE 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® HERBICIDE.
- 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 CIMARRON® HERBICIDE per acre per year.

STORAGE AND DISPOSAL

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

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour, or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack, or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack, or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with CIMARRON® HERBICIDE containing metsulfuron-methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with CIMARRON® HERBICIDE containing metsulfuron-methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact BAYER CROPSCIENCE LP at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact BAYER CROPSCIENCE LP at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom, and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration, and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour, or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Outer Foil Pouches of Water Soluble Packets (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

Do not transport if this container is damaged or leaking. If the container is damaged, leaking, or obsolete, or in the event of a major spill, fire or other emergency, contact BAYER CROPSCIENCE LP at 1-800-334-7577, day or night.

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Bayer Environmental Science

A Division of Bayer CropScience LP

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Cimarron Herbicide (PENDING) 11/29/2017, 12/13/2017, 09/26/2018, 10/08/2018

For product information call: 1-800-331-2867