



# CIMARRON<sup>®</sup>

## Plus Herbicide

**METSULFURON-METHYL & CHLORSULFURON GROUP 2 HERBICIDE**

For use on Rangeland, Pastures, Grass Hay Fields, or CRP and non-Crop Sites, and for use in Wheat, Barley, and Fallow in the states of Kansas, New Mexico, Oklahoma, and Texas

**Dry-Flowable Granule**

**Active Ingredients**

**By Weight**

Metsulfuron Methyl

Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]carbonyl]amino]sulfonyl]benzoate ..... 48%

Chlorsulfuron

2-Chloro-N-[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)aminocarbonyl]benzenesulfonamide ..... 15%

**Other Ingredients** ..... 37%

**Total** ..... 100%

EPA Reg. No. 101563-183

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See Panel for First Aid Instructions and Booklet for Complete Precautionary Statements and Directions for Use.

**85748572**

85780220C 221216AV1

Nonrefillable Container

Net Weight:

**2 Ounces**

**envu™**

**PRODUCED FOR**

**Environmental Science U.S., LLC**

**5000 CentreGreen Way, Suite 400**

**Cary, NC 27513**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

## FIRST AID

**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.

**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 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION!

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical Resistant Gloves made of any waterproof material such as polyethylene or polyvinylchloride
- 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 the 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 clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 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 disposing of equipment washwater or rinsate.

**GROUNDWATER ADVISORY**

Chlorsulfuron and metsulfuron-methyl are 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 chlorsulfuron and 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 hours.

**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 ADVISORY**

CIMARRON® PLUS 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® PLUS HERBICIDE if prevailing local conditions may be expected to result in off-site movement.

**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. CIMARRON® PLUS HERBICIDE must be used in accordance with the directions for use on this label. Always read the entire label including the Limitations of Warranty and Liability.

**MANDATORY SPRAY DRIFT**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.

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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 a pasture and rangeland application, 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 aurally 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.

## **DRIFT CONTROL ADJUVANTS**

A drift control adjuvant may be used to reduce the potential for drift. However, because it is the combined physical-chemical properties of all the ingredients in the spray mix that can determine drift potential, the applicator must confirm that the drift control adjuvant used is having the desired effect with the tank mix that is being applied. If a drift control adjuvant is used, follow the use directions and precautions on the manufacturer's label. Do not use an adjuvant which increases viscosity with application systems that cannot accommodate viscous sprays.

## **SWATH ADJUSTMENT**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.). Applicators must use ½ swath displacement upwind at the downwind edge of the field.

## **INVASIVE SPECIES MANAGEMENT**

This product may be considered for use on public, private, and tribal lands to treat certain weed species infestations that have been determined to be invasive, consistent with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW) National Early Detection and Rapid Response (EDRR) System for invasive plants. Effective EDRR systems address invasions by eradicating the invader where possible, and controlling them when the invasive species is too firmly established to be feasibly eradicated. Once an EDRR assessment has been completed and action is recommended, a Rapid Response needs to be taken to quickly contain, deny reproduction, and if possible eliminate the invader. Consult your appropriate state extension service, forest service, or regional multidisciplinary invasive species management coordination team to determine the appropriate Rapid Response provisions and allowed treatments in your area.

## **WEED RESISTANCE MANAGEMENT**

CIMARRON® PLUS HERBICIDE contains the active ingredients metsulfuron-methyl and chlorsulfuron which are 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:

- o Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- o A spreading patch of non-controlled plants of a particular weed species; and
- o 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 Environmental Science U.S., LLC distributor, Environmental Science U.S., LLC 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.

## **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.

### **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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Noncrop weed control is not within the scope of the Worker Protection Standard. Do not enter or allow others to enter the treated area until sprays have dried.

### PRODUCT INFORMATION

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

Check with your state extension or Department of Agriculture before use to be certain CIMARRON® PLUS HERBICIDE is registered in your state. DO NOT use CIMARRON® PLUS HERBICIDE in the following counties of Colorado: Alamosa, Conejos, Costilla, Rio Grande, and Saquache.

CIMARRON® PLUS HERBICIDE controls weeds by preemergence and postemergence activity. For best results, apply CIMARRON® PLUS 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 and maturity at application
- Environmental conditions during and following treatment
- Application rate and coverage

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 including lakes, reservoirs, ponds, streams and canals.

### BIOLOGICAL ACTIVITY

CIMARRON® PLUS 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) is needed to move CIMARRON® PLUS 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® PLUS HERBICIDE into the weed root zone, weeds that germinate after treatment will not be controlled.

Application of CIMARRON® PLUS 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.

Grasses that are stressed from adverse environmental conditions (including extremes in temperatures or moisture), abnormal soil conditions (including soils low in potassium), or cultural practices (including over-grazing), may be injured by applications of CIMARRON® PLUS HERBICIDE. In addition, different species of grass crops may be sensitive to treatment with CIMARRON® PLUS HERBICIDE under otherwise normal conditions (see Application Timing for Established Grasses). Application of CIMARRON® PLUS HERBICIDE to these species may result in injury.

In warm, moist conditions, the expression of herbicide symptoms is accelerated in weeds and brush; in cold and/or dry conditions, expression of herbicide symptoms is delayed. In addition, weeds and

brush hardened-off by drought stress are less susceptible to CIMARRON® PLUS HERBICIDE. Weed and brush control or suppression may be reduced if rainfall, sprinkler irrigation or snowfall occurs within 4 hours after application.

Weed control needs to be part of an overall management plan which includes good fertility, adequate moisture (rainfall, irrigation), insect and rodent control, and other agronomic practices that maximize grass growth. Consult your state cooperative extension service, local agricultural dealer, professional consultant or other qualified authority for specific instructions regarding proper management of rangeland, pastures, grass hay fields, wheat or barley.

### **IMPORTANT RESTRICTIONS**

- DO NOT apply this product through any type of irrigation system.
- Injury to or loss of desirable trees or vegetation may result from failure to observe the following:
  - o DO NOT apply CIMARRON® PLUS HERBICIDE, or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
  - o DO NOT use on lawns, walks, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas.
  - o DO NOT use on grasses grown for seed.
- DO NOT contaminate irrigation ditches or water used for domestic purposes.
- DO NOT apply to irrigated land where the tailwater will be used to irrigate crops.
- DO NOT apply to frozen or snow covered ground as surface runoff may occur.
- Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Injury may be more severe when the crops are irrigated. DO NOT apply CIMARRON® PLUS HERBICIDE when these conditions are identified and powdery, dry

soil or light or sandy soil are known to be prevalent in the area to be treated.

- Check with your state extension or Department of Agriculture before use to be certain CIMARRON® PLUS HERBICIDE is registered in your state. DO NOT use CIMARRON® PLUS HERBICIDE in the following counties of Colorado: Alamosa, Conejos, Costilla, Rio Grande, and Saquache.
- DO NOT use this product in California.
- Applications may make some toxic plants more palatable as the weeds are dying. DO NOT graze treated areas until toxic plants are dry and unpalatable to livestock.

### **For Wheat, Barley, or Fallow Use Sites**

- Treated vegetation may be cut for forage or hay. Coveralls, waterproof gloves, and shoes plus socks must be worn if cutting within 4 hours of treatment.
- DO NOT apply more than 0.125 ounces (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre in a single application on wheat and barley.
- DO NOT apply more than 0.125 ounces/acre (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron) per acre per year of CIMARRON® PLUS HERBICIDES on wheat and barley.
- DO NOT make more than one application per year of CIMARRON® PLUS HERBICIDE on wheat and barley.
- DO NOT apply more than 0.25 ounces (0.0075 lb ai/acre metsulfuron-methyl and 0.0023 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre in a single application on fallow use sites.
- DO NOT apply more than 0.25 ounces/acre (0.0075 lb ai/acre metsulfuron-methyl and 0.0023 lb ai/acre chlorsulfuron) per acre per year of CIMARRON® PLUS HERBICIDES in applications on fallow use sites.
- DO NOT make more than two application per year of CIMARRON® PLUS HERBICIDE on fallow use sites when using reduced application rates.
- Allow at least 14 days between applications of CIMARRON® PLUS HERBICIDE on fallow use sites.

### **For Rangeland, Pastures, Grass Hay Fields, or CRP Use Sites**

- DO NOT apply more than 2 ounces (0.06 lb ai/acre metsulfuron-methyl and 0.0188 lb ai/acre



chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre in a single application on rangeland, pasture, grass hay fields, or CRP use sites.

- DO NOT apply more than 2 ounces (0.06 lb ai/acre metsulfuron-methyl and 0.0188 lb ai/acre chlorsulfuron) per acre per year of CIMARRON® PLUS HERBICIDE on rangeland, pasture, grass hay fields, or CRP use sites.
- DO NOT make more than two applications per year of CIMARRON® PLUS HERBICIDE on rangeland, pasture, grass hay fields, or CRP use sites when using reduced application rates. Allow at least 14 days between applications of CIMARRON® PLUS HERBICIDE to rangeland, pasture, grass hay fields or CRP use sites.
- If tank-mixing or sequentially applying products containing metsulfuron-methyl to rangeland, pastures, grass hay fields or grasses in the Conservation Reserve Program (CRP). DO NOT apply more than the equivalent of 1 ounce of metsulfuron-methyl active ingredient per acre per year.
- If tank-mixing or sequentially applying products containing chlorsulfuron to rangeland, pastures, grass hay fields or grasses in the Conservation Reserve Program (CRP), DO NOT apply more than the equivalent of 1 ounce of chlorsulfuron active ingredient per acre per year.

#### **For Non-Cropland Use Sites**

- DO NOT apply more than 5 ounces (0.15 lb ai/acre metsulfuron-methyl and 0.0469 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre in a single application on non-cropland use sites.
- DO NOT apply more than 5 ounces/acre (0.15 lb ai/acre metsulfuron-methyl and 0.0469 lb ai/acre chlorsulfuron) per acre per year of CIMARRON® PLUS HERBICIDES in applications on non-cropland use sites.
- DO NOT make more than two applications per year of CIMARRON® PLUS HERBICIDE on non-cropland sites when using reduced application rates. Allow at least 14 days between applications of CIMARRON® PLUS HERBICIDE.

- When used as directed, there is no grazing or haying restriction for use rates of 2 ounces (0.06 lb ai/acre metsulfuron-methyl and 0.0188 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre or less. At use rates greater than 2 ounces per acre and up to 4 ounces (0.12 lb ai/acre metsulfuron-methyl and 0.0376 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre, forage grasses may be cut for hay, fodder or green forage and fed to livestock, including lactating animals, 3 days after treatment.

#### **IMPORTANT PRECAUTIONS**

- CIMARRON® PLUS HERBICIDE may cause injury to desirable trees and plants when contacting their roots, stems or foliage. These plants are most sensitive to CIMARRON® PLUS HERBICIDE during their development or growing stage.
- Grass species or varieties may differ in their response to various herbicides. ENVIRONMENTAL SCIENCE U.S., LLC specifies 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® PLUS HERBICIDE to a small area. Components in a grass seed mixture will vary in sensitivity to CIMARRON® PLUS HERBICIDE so the final stand may not reflect the seed ratio.
- Under certain conditions including heavy rainfall, high pH, prolonged cold weather, or wide fluctuations in day/night temperatures prior to or soon after CIMARRON® PLUS HERBICIDE application, temporary discoloration and/or grass injury may occur. CIMARRON® PLUS HERBICIDE must 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® PLUS HERBICIDE to sites undersown with legume crops may cause severe injury to the legumes. Legumes in a seeding mixture may be severely injured or killed following an application of CIMARRON® PLUS HERBICIDE.

- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, to soils saturated with water, to surfaces paved with materials including asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of CIMARRON® PLUS HERBICIDE. Treated soil needs to be left undisturbed to reduce the potential for CIMARRON® PLUS HERBICIDE movement by soil erosion due to wind or water.
- For ground applications applied to weeds when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced.
- Avoid disturbing (e.g. mowing) treated areas for at least 7 days following application.
- When using tank mixtures of CIMARRON® PLUS HERBICIDE with companion herbicides, read and follow all use instructions, application rates, warnings, and precautions appearing on the labels. Follow the most restrictive label instructions for each of the herbicides used.

#### **WHEAT AND BARLEY**

CIMARRON® PLUS HERBICIDE may be applied alone for control of emerged broadleaf weeds post-emergence, or in combination with other suitable registered herbicides for wheat and barley in the states of Kansas, New Mexico, Oklahoma, and Texas. Read and follow all manufacturers label instructions for the companion herbicide. If those instructions conflict with this label, DO NOT tank mix the herbicide with CIMARRON® PLUS HERBICIDE. If another herbicide is tank mixed with CIMARRON® PLUS HERBICIDE to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the companion herbicide.

#### **Use rate and adjuvant:**

Apply 0.125 ounces per acre of CIMARRON® PLUS HERBICIDE (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron). Include a non-ionic surfactant as an adjuvant. Thorough spray coverage of all weed species is very important.

#### **Application timing:**

DO NOT apply during boot and early heading, as crop injury may result.

#### **Applications 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® PLUS HERBICIDE in fertilizer solution.

CIMARRON® PLUS HERBICIDE must first be slurried with water then added to liquid nitrogen solutions (e.g. 28-0-0, 32-0-0). Ensure that the agitator is running while the CIMARRON® PLUS HERBICIDE is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 0.5 pt to 1 qt per 100 gal of spray solution (0.06 to 0.25% v/v) based on local specifications.

When using high rates of liquid nitrogen fertilizer in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldman, or Environmental Science U.S., LLC representative for specifications before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with CIMARRON® PLUS HERBICIDE and fertilizer, ester formulations tend to be more compatible (See manufacturer's label). DO NOT add surfactant when using CIMARRON® PLUS HERBICIDE in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions.

Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

DO NOT use low rates of liquid fertilizer as a substitute for a surfactant.

DO NOT use with liquid fertilizer solutions with a pH less than 3.0.

#### **IRRIGATED WHEAT AND BARLEY**

Make applications after the crop begins tillering but before boot. Delay first post-treatment irrigation for at least 3 days after treatment and must not exceed 1 inch of water.

#### **DRYLAND WHEAT AND BARLEY**

Make applications after the crop is in the 2-leaf stage but before boot.

## GRAZING

There are no grazing restrictions on CIMARRON® PLUS HERBICIDE.

## WEED CONTROL INFORMATION

CIMARRON® PLUS HERBICIDE may be applied post emergence to control or suppress weeds listed on, but not limited to, this label. For best results, treat weeds when they are small and actively growing. Unless otherwise directed, treat when broadleaf weeds are less than 4" tall or in diameter (natural size - not after mowing or grazing).

### WEEDS CONTROLLED IN WHEAT AND BARLEY

0.125 ounces/acre (0.0038 lb ai/acre metsulfuron-methyl); 0.0012 lb ai/acre chlorsulfuron)					
Annual sowthistle*‡	Common lambsquarterst	Filaree	Miners lettuce	Slimleaf lambsquarters	Tumble pigweed
Blue/purple mustard*	Common purslane	Flixweed*†	Pale smartweed	Smallseed falseflax*†	Volunteer sunflower*‡
Bur buttercup (testiculate)	Common sunflower*‡	Green Smartweed	Plains coreopsis	Smooth pigweed†	Waterpod
Canada thistle*‡	Conical catchfly	Henbit	Prickly lettuce*†	Snow speedwell	Wild buckwheat*‡
Coast fiddleneck (tarweed)	Corn gromwell*‡	Jim Hill mustard	Prostrate knotweed *‡	Tansymustard*	Wild mustard
Common broomweed	Cowcockle	Kochia*†	Redroot pigweed†	Texas filaree	Wild sunflower*‡
Common chickweed†	False chamomile	Ladysthumb	Russian thistle*†	Treacle mustard*† (Bushy Wallflower)	
Common groundsel	Field pennycress (fanweed)	Mayweed chamomile	Shepherd's purse	Tumble mustard	

\* See the Specific Weed Problems in Wheat and Barley 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.

† Naturally occurring resistant biotypes of these weeds are known to occur. See **WEED RESISTANCE** section of the label for more information.

### Specific Weed Problems in Wheat and Barley

**Blue Mustard, flixweed, small seeded falseflax, tansymustard, treacle mustard:** For best results, apply CIMARRON® PLUS HERBICIDE tank mixtures with 2,4-D or MCPA postemergence to

mustards, but before bloom. For Tansy mustard, Flixweed, Treacle mustard and Small seeded falseflax control, apply 0.125 ounces of CIMARRON® PLUS HERBICIDE (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron) plus 2,4-D ester.

**Canada thistle and annual sowthistle:** Apply CIMARRON® PLUS HERBICIDE plus surfactant or CIMARRON® PLUS 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 the crop.

**Corn gromwell and prostrate knotweed:** Apply CIMARRON® PLUS HERBICIDE plus surfactant 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® PLUS 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® PLUS HERBICIDE in a tank mix with dicamba plus 2,4-D or bromoxynil plus 2,4-D ester. Apply in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing.

**Sunflower (common, volunteer, or wild):** Apply either CIMARRON® PLUS HERBICIDE plus surfactant or CIMARRON® PLUS 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 5 gallons by ground.

**Wild Buckwheat:** For best results, apply CIMARRON® PLUS 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.

## FALLOW

CIMARRON® PLUS HERBICIDE may be applied alone for control of emerged broadleaf weeds post-emergence, or in combination with other suitable registered herbicides for fallow weed control in the states of Kansas, New Mexico, Oklahoma, and Texas. Read and follow all manufacturers label instructions for the companion herbicide. If those instructions conflict with this label, DO NOT tank mix the herbicide with CIMARRON® PLUS HERBICIDE. If another herbicide is tank mixed with CIMARRON® PLUS HERBICIDE to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the companion herbicide.

## Use rates and adjuvant

Apply CIMARRON® PLUS HERBICIDE at 0.125 to 0.25 ounces per acre (0.0038 to 0.0075 lb ai/acre metsulfuron-methyl and 0.0012 to 0.0023 lb ai/acre chlorsulfuron). Include a nonionic surfactant, petroleum based crop oil concentrate, or vegetable-seed oil-based product (methylated seed oils are considered a vegetable seed-based oil).

When using more than 0.125 ounces per acre of CIMARRON® PLUS HERBICIDE (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron), the fallow area is best planted to cereals (a field bioassay must be completed before rotating to any other crop). See CROP ROTATION for more information.

## Application timing

CIMARRON® PLUS HERBICIDE may be used as a fallow treatment any time from the spring through the fall when the majority of weeds have emerged and are actively growing.

## WEED CONTROL INFORMATION

CIMARRON® PLUS HERBICIDE may be applied post emergence to control or suppress weeds listed on, but not limited to, this label. For best results, treat weeds when they are small and actively growing. Unless otherwise directed, treat when broadleaf weeds are less than 4" tall or in diameter (natural size - not after mowing or grazing).

## WEEDS CONTROLLED IN FALLOW APPLICATIONS

0.125 to 0.25 ounces/acre (0.0038 to 0.0075 lb ai/acre metsulfuron-methyl and 0.0012 to 0.0023 lb ai/acre chlorsulfuron)					
Annual sowthistle*‡	Common groundsel	False chamomile	Miners lettuce	Slimleaf lambsquarters	Volunteer sunflower*‡
Blue/purple mustard*	Common lambsquarters†	Field pennycress (fanweed)	Pale smartweed	Smallseed falseflax*†	Waterpod
Bur buttercup (testiculate)	Common purslane	Flixweed*	Plains coreopsis	Smooth pigweed†	Wild buckwheat*‡
Buttercup	Common sunflower*‡	Green smartweed	Plantain (except buckhorn)	Snow speedwell	Wild garlic*
Canada thistle*‡	Conical catchfly	Henbit	Prickly lettuce*†	Tansymustard*	Wild mustard
Carolina geranium	Corn gromwell*‡	Jim Hill mustard	Prostrate knotweed*‡	Texas filaree	Wild sunflower*‡
Coast fiddleneck (tarweed)	Cowcockle	Kochia*†	Redroot pigweed†	Treacle mustard*† (Bushy Wallflower)	
Common broomweed	Cutleaf evening primrose*‡	Ladysthumb	Russian thistle*†	Tumble mustard	
Common chickweed	Dandelion	Mayweed chamomile	Shepherd's purse	Tumble pigweed	

\* See the Specific Weed Problems in Fallow 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.

† Naturally occurring resistant biotypes of these weeds are known to occur. See **WEED RESISTANCE** section of the label for more information.

### Specific Weed Problems in Fallow

**Blue Mustard, flixweed, small seeded falseflax, tansymustard, treacle mustard:** For best results, apply CIMARRON® PLUS HERBICIDE tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom. For Tansy mustard, Flixweed, Treacle mustard and Small seeded falseflax control, apply CIMARRON® PLUS HERBICIDE plus 2,4-D ester.

**Canada thistle, annual sowthistle and cutleaf evening primrose:** Apply CIMARRON® PLUS HERBICIDE plus surfactant or CIMARRON® PLUS 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 the crop.

**Corn gromwell and prostrate knotweed:** Apply CIMARRON® PLUS HERBICIDE plus surfactant

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® PLUS 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® PLUS HERBICIDE in a tank mix with dicamba plus 2,4-D or bromoxynil plus 2,4-D ester. Apply in the spring when kochia, Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the Tank Mixtures section of this label for additional details).

**Sunflower (common, volunteer, or wild):** Apply either CIMARRON® PLUS HERBICIDE plus surfactant or CIMARRON® PLUS 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 5 gallons by ground.

**Wild Buckwheat:** For best results, apply CIMARRON® PLUS 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:** For best results, apply CIMARRON® PLUS HERBICIDE in the early spring when wild garlic is less than 12" tall with 2" to 4" of new growth.

## CROP ROTATION

### Minimum Rotational Intervals

Minimum rotation intervals (the period of time from the last application to the anticipated date of the next planting) are determined by the rate of breakdown of CIMARRON® PLUS HERBICIDE applied. CIMARRON® PLUS 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® PLUS HERBICIDE breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow CIMARRON® PLUS 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, monitor soil temperatures and soil moisture regularly when considering crop rotations.

### Soil pH Limitations

CIMARRON® PLUS HERBICIDE can have extended residual activity when applied on soils with pH higher than 7.9. Sufficient time must be allowed between application and planting of sensitive crops (all crops other than labeled perennial grasses; See Established Grasses Section). Under certain conditions, CIMARRON® PLUS HERBICIDE could remain active in the soil for 34 months or more, injuring subsequent crops.

### Checking Soil pH

Before using CIMARRON® PLUS 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 specified soil sampling procedures.

### Bioassay

A field bioassay must be completed before rotating to any crop not listed (See 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, or if the minimum cumulative precipitation has not occurred since application. To conduct a field bioassay, grow test strips of the crop or crops you plan to grow the following year in fields previously treated with CIMARRON PLUS HERBICIDE. Crop response to the bioassay will indicate whether or not to rotate to the crop(s) grown in the test strips. If a field bioassay is planned, check with your local Agricultural dealer or Environmental Science U.S., LLC representative for information detailing the field bioassay procedure. Before using CIMARRON® PLUS HERBICIDE, carefully consider your crop rotation plans and options. For rotational flexibility, DO NOT treat all of your wheat or barley acres at the same time.

### Rotational Intervals for Cereals

All Areas - Following Use of CIMARRON® PLUS HERBICIDE at 0.125 to 0.25 ounces per Acre (0.0038 to 0.0075 lb ai/acre metsulfuron-methyl and 0.0012 to 0.0023 lb ai/acre chlorsulfuron)

Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
Winter and spring wheat (except durum)	7.9 or lower	No restrictions	1
Durum wheat, barley, spring/ winter oat	7.9 or lower	No restrictions	10

### Rotational Intervals for Crops in Non-Irrigated Land

Following Use of CIMARRON® PLUS HERBICIDE at 0.125 ounces per Acre (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron)

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
Kansas	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
	Central & Western Kansas (West of the Flint Hills)	Field corn	7.9 or lower	15	12
		Clearfield® Corn	7.9 or lower	15	4
	Western Kansas W. of Hwy. 183	Soybeans	7.5 or lower	22	22
			7.6-7.9	33	34
	Central Kansas; generally E. of Hwy. 183 and W. of the Flinthills	Soybeans	7.9 or lower	15	12
		STS® Soybeans	7.9 or lower	15	4

**Rotational Intervals for Crops in Non-Irrigated Land** *(continued)*

**Following Use of CIMARRON® PLUS HERBICIDE at 0.125 ounces per Acre (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron)**

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
New Mexico	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
	Eastern New Mexico	Cotton (dryland only)	7.9 or lower	30	22
Oklahoma	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Sunflower	7.9 or lower	No restrictions	22
		Field corn	7.9 or lower	15	12
		Clearfield Corn STS® Soybean	7.9 or lower	No restrictions	4
	Panhandle	Cotton (dryland only)	7.9 or lower	30	22
	E. of the Panhandle	Cotton (dryland only)	7.9 or lower	25	14
Texas	Statewide	Grain sorghum, Proso millet	7.9 or lower	No restrictions	10
		Flax, Safflower, Soybean, Sunflower	7.9 or lower	No restrictions	22
	Panhandle	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	30	22

*(continued)*



**Rotational Intervals for Crops in Non-Irrigated Land** *(continued)*

Following Use of CIMARRON® PLUS HERBICIDE at 0.125 ounces per Acre (0.0038 lb ai/acre metsulfuron-methyl and 0.0012 lb ai/acre chlorsulfuron)

Location		Crop	Soil pH	Minimum Cumulative Precipitation (inches)	Minimum Rotation Interval (months)
State	County or Area				
Texas	N. Central Texas*	Field corn	7.9 or lower	15	12
		Cotton (dryland only)	7.9 or lower	25	14

\* The counties of N. Central Texas are: Archer, Baylor, Bell, Bosque, Bowie, Callahan, Camp, Cass, Clay, Collin, Cooke, Coryell, Dallas, Delta, Denton, Eastland, Ellis, Falls, Fannin, Foard, Franklin, Grayson, Hardeman, Haskell, Hill, Hood, Hopkins, Hunt, Jack, Johnson, Kaufman, Knox, Lamar, Limestone, McLennan, Milam, Montague, Morris, Nafarro, Palo Pinto, Parker, Rains, Red River, Robertson, Rockwall, Shackelford, Somervell, Stephens, Tarrant, Throckmorton, Titus, Upshur, Van Zandt, Wilbarger, Wichita, Williamson, Wise, Wood, Young.

**RANGELAND, PASTURES, GRASS HAY FIELDS AND CRP**

CIMARRON® PLUS HERBICIDE is registered for use on land primarily dedicated to the production of grass forage in rangeland, pastures, grass hay fields or grasses in the Conservation Reserve Program (CRP). This product may be used on selected uncultivated areas (fence rows, farmyards, and rights-of-way) directly adjacent to, or which transect or pass through, treated pastures, rangeland, or CRP, where grazing or harvesting for animal feed of those uncultivated areas may occur.

**NEW PLANTINGS**

CIMARRON® PLUS HERBICIDE can be used for the control or suppression of broadleaf weeds to aid in the establishment of the following perennial native or improved grasses planted in rangeland, pastures, grass hay fields or acres enrolled in the Conservation Reserve Program (CRP):

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

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® PLUS HERBICIDE may not always be satisfactory. An additional herbicide application with a different mode of action or mowing may be needed. Only make one CIMARRON® PLUS HERBICIDE application in the year of planting.

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

Apply CIMARRON® PLUS HERBICIDE preplant or preemergence at 0.125 ounce/acre (0.0038 lb ai/acre metsulfuron-methyl; 0.0012 lb ai/acre chlorsulfuron) plus a non-ionic surfactant at the rate of 4 pints/100 gallons of spray solution on all labeled grasses except orchardgrass and Russian wildrye grass. DO NOT apply CIMARRON® PLUS HERBICIDE preplant or preemergence to orchardgrass and Russian wildrye grass as severe crop injury may result.

**Early postemergence to new plantings**

Apply CIMARRON® PLUS HERBICIDE at 0.125 ounce/acre, (0.0038 lb ai/acre metsulfuron-methyl; 0.0012 lb ai/acre chlorsulfuron) 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® PLUS HERBICIDE at 0.125 ounce/(0.0038 lb ai/acre metsulfuron-methyl; 0.0012 lb ai/acre chlorsulfuron) 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.

**ESTABLISHED GRASSES**

**Use Rates for Established Grasses**

Apply 0.125 to 1.25 ounces CIMARRON® PLUS HERBICIDE(0.0375 lb ai/acre to 0.0038 lb ai/acre metsulfuron-methyl and 0.0117 lb ai/acre to 0.0012 lb ai/acre chlorsulfuron) per acre as a broadcast

application to established grasses in rangeland, pastures, grass hay fields or acres enrolled in the Conservation Reserve Program (CRP) and/or undesirable vegetation in uncultivated areas (fence rows, farmyards, and rights-of-way) which are adjacent to, or pass through or transect, treated rangeland, pastures, grass hay fields or CRP. Include a spray adjuvant (see SPRAY ADJUVANTS section).

**Application Timing for Established Grasses**

CIMARRON® PLUS HERBICIDE may be applied to established native grasses e.g. bluestems and grama, and on other established pasture grasses including bermudagrass, bluegrass, orchardgrass, bromegrass, and fescue that were planted the previous growing season (or earlier) and are fully tillered, unless otherwise directed on this label. CIMARRON® PLUS HERBICIDE may also be applied to established grasses that have been inter-seeded with cereal grasses for grazing (e.g barley, oats, rye and wheat). Specific application timing information on several of these grass species follows:

<b>Pasture Grass</b>	<b>Minimum time from grass establishment to CIMARRON® PLUS HERBICIDE application</b>
Bermudagrass	2 months
Bluegrass, bromegrass (except Matua bromegrass), and orchardgrass	6 months
Timothy	12 months
Fescue	24 months

**Buffalograss Restrictions:**

- DO NOT use CIMARRON® PLUS HERBICIDE on buffalograss that has been established for less than one year or on stands grown for seed production.
- DO NOT apply more than 0.625 ounces per acre (0.0188 lb ai/acre metsulfuron-methyl and 0.0059 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per application to buffalograss.
- DO NOT apply more than 1.25 ounces (0.0376 lb ai/acre metsulfuron-methyl and 0.0118 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre per year.

- DO NOT make more than two applications per year of CIMARRON® PLUS HERBICIDE on Buffalograss when using reduced application rates. Allow at least 14 days between applications of CIMARRON® PLUS HERBICIDE.

**Fescue Restrictions:**

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

- Make application later in the spring after the new growth is 5 to 6 inches tall, or in the fall.
- DO NOT use more than 0.5 ounces (0.015 lb ai/acre metsulfuron-methyl and 0.0047 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre per application.
- DO NOT make more than two applications per year of CIMARRON® PLUS HERBICIDE on Fescue grass when using reduced application rates. Allow at least 14 days between applications of CIMARRON® PLUS HERBICIDE.
- DO NOT use more than 0.5 ounces (0.015 lb ai/acre metsulfuron-methyl and 0.0047 lb ai/acre chlorsulfuron) of CIMARRON® PLUS HERBICIDE per acre per year.
- Use a non-ionic surfactant at 0.5 to 1 pint per 100 gallon of spray solution (0.06 to 0.12% v/v). DO NOT use a spray adjuvant other than non-ionic surfactant.
- DO NOT use surfactant when liquid nitrogen is used as a carrier.

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

**Other Pasture and Grasses Restrictions:**

DO NOT use on bentgrass or susceptible grass pastures including carpetgrass, Matua bromegrass or St. Augustine grass. Applications of CIMARRON® PLUS HERBICIDE may cause severe injury to and/or loss of Pensacola bahiagrass, ryegrass (Italian or perennial) and Garrison's creeping foxtail pastures. Varieties and species of forage grasses differ in their sensitivity to herbicides. When using CIMARRON® PLUS 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.

**WEED CONTROL INFORMATION**

CIMARRON® PLUS HERBICIDE may be applied post emergence to control or suppress weeds listed on, but not limited to, this label. For best results, treat weeds when they are small and actively growing. Unless otherwise directed, treat when broadleaf weeds are less than 4" tall or in diameter (natural size - not after mowing or grazing). Broadleaf pasture species, e.g. alfalfa and clover, are highly sensitive to CIMARRON® PLUS HERBICIDE and will be severely stunted or injured.

**WEEDS CONTROLLED IN RANGELAND, PASTURES, GRASS HAY FIELDS AND CRP APPLICATIONS**

<b>0.125 to 0.25 ounces/acre (0.0038 to 0.0075 lb ai/acre metsulfuron-methyl and 0.0012 to 0.0023 lb ai/acre chlorsulfuron)</b>					
Annual sowthistle*‡	Common groundsel	False chamomile	Miners lettuce	Slimleaf lambsquarters	Volunteer sunflower*‡
Blue/purple mustard*	Common lambsquarterst	Field pennycress (fanweed)	Pale smartweed	Smallseed falseflax*†	Waterpod
Bur buttercup (testiculate)	Common purslane	Flixweed*	Plains coreopsis	Smooth pigweed†	Wild buckwheat*‡
Buttercup	Common sunflower*‡	Green smartweed	Plantain (except buckhorn)	Snow speedwell	Wild garlic*
Canada thistle*‡	Conical catchfly	Henbit	Prickly lettuce*†	Tansymustard*	Wild mustard
Carolina geranium	Corn gromwell*‡	Jim Hill mustard	Prostrate knotweed*‡	Texas filaree	Wild sunflower*‡
Coast fiddleneck (tarweed)	Cowcockle	Kochia*†	Redroot pigweed†	Treacle mustard†* (Bushy Wallflower)	
Common broomweed	Cutleaf evening primrose*‡	Ladysthumb	Russian thistle*†	Tumble mustard	
Common chickweed	Dandelion	Mayweed chamomile	Shepherd's purse	Tumble pigweed	
<b>0.25 to 0.375 ounces/acre (all weeds above plus the following) (0.0075 to 0.0113 lb ai/acre metsulfuron-methyl and 0.0023 to 0.0035 lb ai/acre chlorsulfuron)</b>					
Annual marshelder	Buckbrush‡	Common yarrow	Marestail/Horseweed†	Scotch thistle*	Woolly croton*
Bitter sneezeweed	Burclover	Curly dock	Musk thistle*	Western snowberry‡	
Blackeyed-Susan	Common broomweed	Horsemint (beebalm)	Purple scabious	Wild carrot	
<b>0.375 to 0.625 ounces/acre (all weeds above plus the following) (0.0113 to 0.0188 lb ai/acre metsulfuron-methyl and 0.0035 to 0.0059 lb ai/acre chlorsulfuron)</b>					
Annual sowthistle	Clover	Dogfennel	Pennsylvania smartweed	Seaside arrowgrass	Wood sorrel
Aster	Cockleburt	Goldenrod	Pensacola bahiagrass*	Silky crazyweed (locoweed)	Yankeweed
Bittercress	Corn cockle	Maximillion sunflower	Redstem filaree	Sweet clover	
Chicory	Crown vetch	Multiflora rose*‡	Rough fleabane	Wild lettuce	

*(continued)*

**WEEDS CONTROLLED IN RANGELAND, PASTURES, GRASS HAY FIELDS AND CRP APPLICATIONS** *(continued)*

<b>0.625 to 1.25 ounces/acre (all weeds above plus the following) (0.0188 to 0.0375 lb ai/acre metsulfuron-methyl and 0.0059 to 0.0117 lb ai/acre chlorsulfuron)</b>					
Black henbane	Common crupina	Fringed sagebrush*	Honeysuckle	Rosering gaillardia	Teasel
Blackberry	Common mullein	Garlic mustard	Multiflora rose & other wild roses*	Sericea lespedeza*	Wild caraway
Broom snakeweed*	Dewberry	Gorse	Oxeye daisy	Spotted knapweed*	Yucca*
Buckhorn plantain	Dyer's woad	Halogeton	Plumeless thistle*	Tansy ragwort	Sericea lespedeza*
<b>1.25 to 2.0 ounces/acre (all weeds above plus the following) (0.0375 to 0.060 lb ai/acre metsulfuron-methyl and 0.0117 to 0.0188 lb ai/acre chlorsulfuron)</b>					
Ash‡	Common snowberry*	Hawthorne‡	Purple loosestrife	Scotch thistle	Whitetop (hoary cress)
Aspen‡	Common tansy	Houndstongue	Purple scabious	St. Johnswort	Wild Iris
Black locust‡	Elm‡	Lupine	Rush skeletonweed*‡	Sulphur cinquefoil	Willow
Bull thistle	Field bindweed‡	Mountain snowberry*	Salmonberry	Thimbleberry	Yellow poplar
Camelthorne‡	Greasewood	Perennial pepperweed	Salsify	Tree of heaven	
Cherry‡	Gumweed	Poison hemlock	Scouringrush	Western salsify	

\* See the Specific Weed Problems in Rangeland, Pastures, Grass Hay Fields and CRP 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.

† Naturally occurring resistant biotypes of these weeds are known to occur. See WEED RESISTANCE section of the label for more information.

**Specific Weed Problems in Rangeland, Pastures, Grass Hay Fields and CRP section.**

**Note:** For best results, thorough spray coverage of all weed species listed below is very important.

**Blue/Purple Mustard, Flixweed, small seeded falseflax, tansymustard, and treacle mustard:**

For best results, apply CIMARRON® PLUS HERBICIDE in tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom.

**Broom Snakeweed:** For best results, apply CIMARRON® PLUS HERBICIDE during and after full flowering stage in the fall when growth conditions are good. Applications of CIMARRON® PLUS HERBICIDE in the spring are best timed at peak plant growth when growing conditions are good and may provide suppression only. Applications made during drought conditions may not give satisfactory results.

**Canada Thistle and annual sowthistle:** For suppression with broadcast applications, apply either CIMARRON® PLUS HERBICIDE or CIMARRON® PLUS HERBICIDE with 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® PLUS 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® PLUS HERBICIDE can improve results.

**Fringed Sagebrush:** For control, apply CIMARRON® PLUS HERBICIDE plus 2,4-D ester. Applications can be made in the spring or early summer after 6 inches of new growth has occurred and plants are actively growing.

**Kochia, Russian thistle, Prickly lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use CIMARRON® PLUS HERBICIDE in a tank mix with dicamba and 2,4-D. Apply 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® PLUS HERBICIDE as a broadcast application when multiflora rose is less than 3' tall. Apply in the spring, soon after multiflora rose is fully leafed.

**Musk Thistle, Scotch Thistle:** Apply CIMARRON® PLUS HERBICIDE 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® PLUS HERBICIDE and may not be controlled. For improved control apply CIMARRON® PLUS HERBICIDE in a tank mix with

dicamba and 2,4-D. Consult with your local ENVIRONMENTAL SCIENCE U.S., LLC representative, dealer or applicator for specific use rate and tank mix specifications for your area. Fall applications must be made before the soil freezes.

**Pensacola bahiagrass control in established Bermudagrass pasture:** Apply CIMARRON® PLUS HERBICIDE after greenup in the spring but before bahiagrass seedhead formation. Apply when moisture is sufficient to enhance grass growth.

CIMARRON® PLUS HERBICIDE is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, the use of CIMARRON® PLUS HERBICIDE can clear the areas of useful forage until the bermudagrass has time to cover the area. Therefore, CIMARRON® PLUS 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® PLUS HERBICIDE must not be applied in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

CIMARRON® PLUS HERBICIDE must not be used for the control of common or Argentine bahiagrass.

**Plumeless Thistle:** For control of plumeless thistle apply CIMARRON® PLUS HERBICIDE in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Fall applications must be made before the soil freezes.

**Rush skeletonweed:** For best results, apply CIMARRON® PLUS HERBICIDE with dicamba and 2,4-D.

**Sericea lespedeza:** For best results, apply CIMARRON® PLUS HERBICIDE beginning at flower bud initiation through the full bloom stage of growth. DO NOT make applications if drought conditions exist at intended time of application.

**Spotted Knapweed:** For best results, apply CIMARRON® PLUS HERBICIDE with dicamba and 2,4-D.

**Snowberry (Common or Mountain):** For control of snowberry, apply CIMARRON® PLUS HERBICIDE

at 1.25 ounces/acre (0.0375 lb ai/acre metsulfuron-methyl and 0.0117 lb ai/acre chlorsulfuron) after the plants are actively growing. Applications can be made throughout the growing season but before fall defoliation. Tank mixtures with 2,4-D ester improve control (refer to Tank Mixtures section of this label for additional information).

**Sunflower (common, volunteer, or wild):** Apply CIMARRON® PLUS 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 gal by air or 10 gal by ground.

**Wild Buckwheat:** For best results, apply CIMARRON® PLUS 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:** For best results, apply CIMARRON® PLUS HERBICIDE in the early spring when wild garlic is less than 12" tall with 2" to 4" of new growth.

**Woolly Croton:** For best results, apply CIMARRON® PLUS HERBICIDE in the late spring or early summer from cotyledon through 2 true leaf stage.

**Yucca:** Apply CIMARRON® PLUS HERBICIDE with 2,4-D ester in the spring through the fall prior to frost. A second application of CIMARRON® PLUS HERBICIDE at 0.375 to 0.625 ounces/acre (0.0113 to 0.0188 lb ai/acre metsulfuron-methyl and 0.0035 to 0.0059 lb ai/acre chlorsulfuron) with 2,4-D ester is suggested within two years of the initial treatment to control yucca seedlings and regrowth from rootstocks.

For best results, use a Crop Oil Concentrate (COC), Modified Seed Oil (MSO), or Modified Seed Oil/Organosilicone (MSO/OS) adjuvant type. The addition of ammonium nitrogen fertilizer may improve control. See Spray Adjuvants section for additional information. Aerial is the preferred application method. Variation in weather (moisture and temperature extremes), yucca physiological condition, soil type, and extent of yucca root system will determine treatment effectiveness.

**SPOT APPLICATIONS IN RANGELAND, PASTURES, GRASS HAY FIELDS AND CRP**  
CIMARRON® PLUS HERBICIDE may be used for suppression of weeds and brush on the **WEEDS CONTROLLED OR SUPPRESSED** list using spot applications or Individual Plant Treatments (IPT) in rangeland, pastures, grass hay fields or acres enrolled in the Conservation Reserve Program (CRP) and/or for undesirable vegetation in uncultivated areas (fence rows, farmyards, and rights-of-way) which are adjacent to, or pass through or transect, treated rangeland, pastures, grass hay fields or CRP.

#### **Use Rates for Spot Applications**

For spot applications, mix 1.25 to 2.0 ounces of CIMARRON® PLUS HERBICIDE (0.0375 to 0.06 lb metsulfuron-methyl and 0.0117 to 0.0188 lb chlorsulfuron) per 100 gallons of water. Include a spray adjuvant (see SPRAY ADJUVANTS section). A dye may be added to the tank to help mark plants that have been sprayed. Thorough coverage of all foliage and stems is necessary to optimize results. Spray entire canopy to wet but not to the point of dripping. On tall, dense stands, it is often necessary to spray from all sides to obtain adequate coverage. DO NOT apply more than 2.0 ounces of CIMARRON® PLUS HERBICIDE per acre (0.06 lb ai/acre metsulfuron-methyl and 0.0188 lb ai/acre chlorsulfuron) per year.

#### **Application Timing for Spot Applications**

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

#### **TANK MIXTURES in Rangeland, Pastures, Grass Hay Fields and CRP Applications**

CIMARRON® PLUS HERBICIDE may be tank mixed with other suitable registered herbicides, insecticides, and fungicides. Read and follow all manufacturer's label directions for the companion pesticide. If those directions conflict with this label, DO NOT tank mix the pesticide with CIMARRON® PLUS HERBICIDE.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Since formulations may be changed and new ones introduced, it is directed that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures. For best results, use of spray equipment having continuous agitation.

### **With Insecticides and Fungicides**

CIMARRON® PLUS HERBICIDE may be tank mixed or used sequentially with insecticides and fungicides registered for use on pastures, grass hay fields, rangeland or CRP. However, under certain conditions (drought stress or cold weather), tank mixes or sequential applications of CIMARRON® PLUS HERBICIDE with organophosphate insecticides (e.g. 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 HERBICIDE plus malathion, as grass injury will result.

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

CIMARRON® PLUS HERBICIDE may be tank mixed with other suitable registered pasture and rangeland herbicides to control weeds listed as WEEDS SUPPRESSED, weeds resistant to CIMARRON® PLUS HERBICIDE, or weeds not listed under **WEEDS CONTROLLED**.

Active ingredients of common tank mix partners for CIMARRON® PLUS HERBICIDE may contain, but are not limited to, 2,4-D, dicamba, picloram, triclopyr, and combinations of these actives. Refer to companion herbicide labels to confirm that the product is labeled for control of the weeds targeted and is registered for use in your state.

### **Herbicide Tank Mixtures for CRP:**

#### **Preplant**

CIMARRON® PLUS HERBICIDE may be tank mixed with glyphosate 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 labels and fact sheets for all use instructions, label rates, weed control claims, warnings, and precautions.

#### **Postemergence**

For best weed control performance in CRP, use CIMARRON® PLUS HERBICIDE in a tank mix with 2,4-D (ester formulations perform best) or dicamba.

CIMARRON® PLUS HERBICIDE can be tank mixed with 2,4-D or dicamba for all labeled sensitive grasses and their respective stages of growth. 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® PLUS HERBICIDE in fertilizer solution. CIMARRON® PLUS HERBICIDE must first be slurried with clean 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® PLUS HERBICIDE is added.

Use of this mixture may result in temporary grass yellowing or burn as commonly seen with liquid fertilizer applications.

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 0.25 pint per 100 gallon of spray solution (0.03%). DO NOT use a spray adjuvant other than non-ionic surfactant.

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

If 2,4-D or MCPA is included with CIMARRON® PLUS HERBICIDE and fertilizer mixture, ester formulations tend to be more compatible (See manufacturer's label). DO NOT add a spray adjuvant when using CIMARRON® PLUS HERBICIDE in tank mix with 2,4-D ester and liquid nitrogen fertilizer solutions greater



than 5% of the spray solution volume.

When making a combined application of liquid fertilizer and herbicides, thorough spray coverage of the weeds is still important. Flat fan nozzles or equivalent delivering a medium size droplet will provide best results. Cluster nozzles delivering a very coarse droplet may not provide satisfactory weed control. The use of liquid nitrogen fertilizer solutions greater than 5% of the spray solution volume with CIMARRON® PLUS HERBICIDE at rates greater than 0.25 ounces (0.0075 lb metsulfuron-methyl and 0.0023 lb chlorsulfuron) may cause grass injury.

DO NOT use low rates of liquid fertilizer as a substitute for a spray adjuvant.

DO NOT tank mix CIMARRON® PLUS HERBICIDE with liquid fertilizer solutions with a pH less than 3.0.

#### **GRAZING/HAYING**

There are no grazing or hay harvest restrictions for non-lactating or lactating livestock including cattle, horses, sheep, goats, and other animals when CIMARRON® PLUS HERBICIDE is applied as directed to range, pasture, grass hay fields, CRP, and/or undesirable vegetation in uncultivated areas (fence rows, farmyards, and rights-of-way) which are adjacent to, or pass through or transect, treated rangeland, pastures, grass hay fields or CRP. Grazing animals DO NOT have to be moved off the area before, during, or after applying CIMARRON® PLUS HERBICIDE.

Coveralls, shoes plus socks, and chemical resistant gloves made of any waterproof material must be worn if cutting within 4 hours of treatment.

#### **CROP ROTATION**

Before using CIMARRON® PLUS HERBICIDE, carefully consider your crop rotation plans and options. If rotational flexibility is desired, DO NOT treat all of your pasture acres at the same time.

#### **ROTATION INTERVALS IN PASTURE, RANGELAND, GRASS HAY FIELDS OR CRP FOR OVERSEEDING, RENOVATION AND RECROP**

<b>Location</b>	<b>Crop or Grass Species</b>	<b>Maximum CIMARRON® PLUS HERBICIDE Rate (ounce/acre)*</b>	<b>Minimum Rotation Interval (months)</b>
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	Up to 0.25	4
	Wheat (except durum)	Up to 0.375	1
	Durum, barley, oat	Up to 0.375	10
ALL STATES NOT INCLUDED ABOVE	Red clover, white clover, and sweet clover	Up to 0.25	12
	Bermudagrass, bluegrass, ryegrass	Up to 0.25	6
	Tall Fescue	Up to 0.25	18
	Wheat (except durum)	Up to 0.25	1
	Durum, barley, oat	Up to 0.25	10

*(continued)*

**ROTATION INTERVALS IN PASTURE, RANGELAND, GRASS HAY FIELDS OR CRP FOR OVERSEEDING, RENOVATION AND RECROP** *(continued)*

Location	Crop or Grass Species	Maximum CIMARRON® PLUS HERBICIDE Rate (ounce/acre)*	Minimum Rotation Interval (months)
ALL AREAS WITH SOIL pH OF 7.5 OR LESS	Russian wildrye	Up to 0.625	1
	Green needlegrass, switchgrass, sheep fescue	Up to 1.25	1
	Meadow brome, smooth brome, alta fescue, red fescue, meadow foxtail, orchardgrass, Russian wildrye	Up to 1.25	2
ALL AREAS WITH SOIL pH OF 7.9 OR LESS	Alkali sacaton, mountain brome, blue grama, thickspike wheatgrass	Up to 1.25	1
	Sideoats grama, switchgrass	Up to 0.625	2
	Western wheatgrass	Up to 1.25	2
	Sideoats grama, switchgrass, big bluestem	Up to 1.25	3
	Field corn, Soybeans	Up to 0.375	12
	STS® soybean	Up to 0.25 Up to 1.25	6 12

*(continued)*

**ROTATION INTERVALS IN PASTURE, RANGELAND, GRASS HAY FIELDS OR CRP FOR OVERSEEDING, RENOVATION AND RECROP** *(continued)*

Location	Crop or Grass Species	Maximum CIMARRON® PLUS HERBICIDE Rate (ounce/acre)*	Minimum Rotation Interval (months)
AL, AR, FL, GA, KY, LA, MS, NC, OK, SC, TN, TX, VA, WV WITH SOIL pH OF 7.0 OR LESS	Field corn, Soybeans	Up to 0.625	12
	STS® soybean	Up to 0.25	6
		Up to 1.25	12

\* - 0.25 ounces/acre of CIMARRON® PLUS HERBICIDE is equal to 0.0075 lb ai/acre metsulfuron-methyl and 0.0023 lb ai/acre chlorsulfuron.  
 - 0.375 ounces/acre of CIMARRON® PLUS HERBICIDE is equal to 0.0113 lb ai/acre metsulfuron-methyl and 0.0035 lb ai/acre chlorsulfuron.  
 - 0.625 ounces/acre of CIMARRON® PLUS HERBICIDE is equal to 0.0188 lb ai/acre metsulfuron-methyl and 0.0059 lb ai/acre chlorsulfuron.  
 - 1.25 ounces/acre of CIMARRON® PLUS HERBICIDE is equal to 0.0375 lb ai/acre metsulfuron-methyl and 0.0117 lb ai/acre chlorsulfuron.

**MINIMUM ROTATIONAL INTERVALS**

Minimum rotation intervals are determined by the rate of breakdown of CIMARRON® PLUS HERBICIDE applied. CIMARRON® PLUS 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® PLUS HERBICIDE breakdown in soil, while high soil pH, low soil temperature, and low soil moisture slow CIMARRON® PLUS 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, monitor soil temperatures and soil moisture regularly when considering crop rotations.

### **SOIL pH LIMITATIONS**

CIMARRON® PLUS HERBICIDE can have extended residual activity when applied on soils with pH higher than 7.9. Sufficient time must be allowed between application and planting of sensitive crops (all crops other than labeled perennial grasses; See Established Grasses Section). Under certain conditions, CIMARRON® PLUS HERBICIDE could remain active in the soil for 34 months or more, injuring subsequent crops.

### **CHECKING SOIL pH**

Before using CIMARRON® PLUS 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 specified 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 in fields previously treated with CIMARRON® PLUS 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 ENVIRONMENTAL SCIENCE U.S., LLC representative for information detailing the field bioassay procedure.

## **NON-CROP SITES**

### **Application Information**

CIMARRON® PLUS HERBICIDE is registered for weed control on private, public and military lands as follows: Uncultivated nonagricultural areas (e.g. airports, highway, railroad and utility rights-of-way, sewage disposal areas); uncultivated agricultural areas non-crop producing (e.g. farmyards, fuel storage areas, fence rows, soil bank land, and barrier strips); industrial sites outdoor (e.g. lumberyards, pipeline and tank farms) including grazed areas on these sites. It may also be used for the control of certain noxious and troublesome weeds.

### **WEED CONTROL INFORMATION**

CIMARRON® PLUS HERBICIDE may be applied post emergence to control or suppress weeds listed on, but not limited to, this label. For best results, treat weeds when they are small and actively growing. Unless otherwise directed, treat when broadleaf weeds are less than 4" tall or in diameter (natural size - not after mowing or grazing).

Consult the "Weeds Controlled" and "Brush Species Controlled" tables to determine the appropriate application rate. CIMARRON® PLUS HERBICIDE may be applied in tank mixture with other herbicides labeled for use on non-crop sites. Fully read the labels and follow all directions and restrictions on each label.

Applications may be made by ground. Use a sufficient volume of water to ensure thorough coverage of the target vegetation with the application equipment being used.

**WEEDS CONTROLLED OR SUPPRESSED ON NON-CROPLAND SITES**

<b>0.125 to 0.25 ounces/acre (0.0038 to 0.0075 lb ai/acre metsulfuron-methyl and 0.0012 to 0.0023 lb ai/acre chlorsulfuron)</b>					
Annual sowthistle*‡	Common groundsel	False chamomile	Miners lettuce	Slimleaf lambsquarters	Volunteer sunflower*‡
Blue/purple mustard*	Common lambsquarters†	Field pennycress (fanweed)	Pale smartweed	Smallseed falseflax*†	Waterpod
Bur buttercup (testiculate)	Common purslane	Flixweed*	Plains coreopsis	Smooth pigweed†	Wild buckwheat*‡
Buttercup	Common sunflower*‡	Green smartweed	Plantain (except buckhorn)	Snow speedwell	Wild garlic*
Canada thistle*‡	Conical catchfly	Henbit	Prickly lettuce*†	Tansymustard*	Wild mustard
Carolina geranium	Corn gromwell*‡	Jim Hill mustard	Prostrate knotweed*‡	Texas filaree	Wild sunflower*‡
Coast fiddleneck (tarweed)	Cowcockle	Kochia*†	Redroot pigweed†	Treacle mustard* (Bushy Wallflower)	
Common broomweed	Cutleaf evening primrose*‡	Ladysthumb	Russian thistle*†	Tumble mustard	
Common chickweed	Dandelion	Mayweed chamomile	Shepherd's purse	Tumble pigweed	
<b>0.25 to 0.375 ounces/acre (all weeds above plus the following) (0.0075 to 0.0113 lb ai/acre metsulfuron-methyl and 0.0023 to 0.0035 lb ai/acre chlorsulfuron)</b>					
Annual marshelder	Buckbrush‡	Common yarrow	Marestail/Horseweed†	Scotch thistle*	Woolly croton*
Bitter sneezeweed	Burclover	Curly dock	Musk thistle*	Western snowberry‡	
Blackeyed-Susan	Common broomweed	Horsemint (beebalm)	Purple scabious	Wild carrot	
<b>0.375 to 0.625 ounces/acre (all weeds above plus the following) (0.0113 to 0.0188 lb ai/acre metsulfuron-methyl and 0.0035 to 0.0059 lb ai/acre chlorsulfuron)</b>					
Annual sowthistle	Clover	Dogfennel	Pennsylvania smartweed	Seaside arrowgrass	Wood sorrel
Aster	Cockleburt	Goldenrod	Pensacola bahiagrass*	Silky crazyweed (locoweed)	Yankeweed
Bittercress	Corn cockle	Maximillion sunflower	Redstem filaree	Sweet clover	
Chicory	Crown vetch	Multiflora rose*‡	Rough fleabane	Wild lettuce	

(continued)

**WEEDS CONTROLLED OR SUPPRESSED ON NON-CROPLAND SITES** (continued)

<b>0.625 to 1.25 ounces/acre (all weeds above plus the following) (0.0188 to 0.0375 lb ai/acre metsulfuron-methyl and 0.0059 to 0.0117 lb ai/acre chlorsulfuron)</b>					
Black henbane	Common crupina	Fringed sagebrush*	Honeysuckle	Rosering gaillardia	Teasel
Blackberry	Common mullein	Garlic mustard	Multiflora rose & other wild roses*	Sericea lespedeza*	Wild caraway
Broom snakeweed*	Dewberry	Gorse	Oxeye daisy	Spotted knapweed*	Yucca*
Buckhorn plantain	Dyer's woad	Halogeton	Plumeless thistle*	Tansy ragwort	
<b>1.25 to 2.0 ounces/acre (all weeds above plus the following) (0.0375 to 0.060 lb ai/acre metsulfuron-methyl and 0.0117 to 0.0188 lb ai/acre chlorsulfuron)</b>					
Ash‡	Common snowberry*	Hawthorne‡	Purple loosestrife	Scotch thistle	Whitetop (hoary cress)
Aspen‡	Common tansy	Houndstongue	Purple scabious	St. Johnswort	
Black locust‡	Elm‡	Lupine	Rush skeletonweed*‡	Sulphur cinquefoil	Wild Iris
Bull thistle	Field bindweed‡	Mountain snowberry*	Salmonberry	Thimbleberry	Willow
Camelthorne‡	Greasewood	Perennial pepperweed	Salsify	Tree of heaven	Yellow poplar
Cherry‡	Gumweed	Poison hemlock	Scouringrush	Western salsify	
<b>2.5 ounces/acre (all weeds above plus the following) (0.075 lb ai/acre metsulfuron-methyl; 0.0234 lb ai/acre chlorsulfuron)</b>					
Dalmation toadflax‡	Old world climbing fern (Lygodium)	Russian knapweed‡	Wild parsnip		
Duncecap larkspur	Onionweed	Tall larkspur	Yellow toadflax‡		
<b>3.75 to 5 ounces/acre (all weeds above plus the following) (0.1125 to 0.150 lb ai/acre metsulfuron-methyl and 0.0352 to 0.0469 lb ai/acre chlorsulfuron)</b>					
Kudzu					

\* See the Specific Weed Problems on Non-cropland sites section.

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‡ 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.

† Naturally occurring resistant biotypes of these weeds are known to occur. See **WEED RESISTANCE** section of the label for more information.

### **Specific Weed Problems on Non-cropland Sites Section**

**Note:** For best results, thorough spray coverage of all weed species listed below is very important.

**Blue/Purple Mustard, Flixweed, small seeded falseflax, tansymustard, and treacle mustard:** For best results, apply CIMARRON® PLUS HERBICIDE in tank mixtures with 2,4-D or MCPA postemergence to mustards, but before bloom.

**Broom Snakeweed:** For best results, apply CIMARRON® PLUS HERBICIDE during and after full flowering stage in the fall when growth conditions are good. Applications of CIMARRON® PLUS HERBICIDE in the spring are best timed at peak plant growth when growing conditions are good and may provide suppression only. Applications made during drought conditions may not give satisfactory results.

**Canada Thistle and annual sowthistle:** For suppression with broadcast applications, apply either CIMARRON® PLUS HERBICIDE or tank mix CIMARRON® PLUS HERBICIDE with 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® PLUS 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® PLUS HERBICIDE can improve results.

**Fringed Sagebrush:** For control, apply CIMARRON® PLUS HERBICIDE and 2,4-D ester. Applications can be made in the spring or early summer after 6 inches of new growth has occurred and plants are actively growing.

**Kochia, Russian thistle, Prickly lettuce:** Naturally occurring resistant biotypes of these weeds are known to occur. For best results, use CIMARRON® PLUS HERBICIDE in a tank mix with dicamba and 2,4-D. Apply 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® PLUS HERBICIDE as a broadcast application when multiflora rose is less than 3' tall. Apply in the spring, soon after multiflora rose is fully leafed.

**Musk Thistle, Scotch Thistle:** Apply CIMARRON® PLUS HERBICIDE 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® PLUS HERBICIDE and may not be controlled. For improved control apply CIMARRON® PLUS HERBICIDE in a tank mix with dicamba and 2,4-D. Consult with your local ENVIRONMENTAL SCIENCE U.S., LLC representative, dealer or applicator for specific use rate and tank mix specifications for your area. Fall applications must be made before the soil freezes.

**Pensacola bahiagrass control in established Bermudagrass pasture:** Apply CIMARRON® PLUS HERBICIDE after greenup in the spring but before bahiagrass seedhead formation. Apply when moisture is sufficient to enhance grass growth.

CIMARRON® PLUS HERBICIDE is very effective for removal of bahiagrass from bermudagrass pastures. In highly infested pastures, the use of CIMARRON® PLUS HERBICIDE can clear the areas of useful forage until the bermudagrass has time to cover the area. Therefore, CIMARRON® PLUS HERBICIDE treatments must 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® PLUS HERBICIDE must not be applied in liquid fertilizer solutions for Pensacola bahiagrass control, as poor control and/or regrowth may occur.

CIMARRON® PLUS HERBICIDE must not be used for the control of common or Argentine bahiagrass.

**Plumeless Thistle:** For control of plumeless thistle apply CIMARRON® PLUS HERBICIDE in the spring or early summer prior to flowering or in the fall after newly emerged plants have reached the rosette stage of growth. Fall applications must be made before the soil freezes.

**Rush skeletonweed:** For best results, apply CIMARRON® PLUS HERBICIDE with dicamba and 2,4-D.

**Sericea lespedeza:** For best results, apply CIMARRON® PLUS HERBICIDE beginning at flower bud initiation through the full bloom stage of growth. DO NOT make applications if drought conditions exist at intended time of application.

**Spotted Knapweed:** For best results, apply CIMARRON® PLUS HERBICIDE with dicamba and 2,4-D.

**Snowberry (Common or Mountain):** For control of snowberry, apply CIMARRON® PLUS HERBICIDE at 1.25 ounces/acre (0.0375 lb ai/acre metsulfuron-methyl and 0.0117 lb ai/acre chlorsulfuron) after the plants are actively growing. Applications can be made throughout the growing season but before fall defoliation. Tank mixtures with 2,4-D ester improve control (refer to Tank Mix Combinations section of this label for additional information).

**Sunflower (common, volunteer, and wild):** Apply CIMARRON® PLUS 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 gal by air or 10 gal by ground.

**Wild Buckwheat:** For best results, apply CIMARRON® PLUS 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:** For best results, apply CIMARRON® PLUS HERBICIDE in the early spring when wild garlic

is less than 12" tall with 2" to 4" of new growth.

**Woolly Croton:** For best results, apply CIMARRON® PLUS HERBICIDE in the late spring or early summer from cotyledon through 2 true leaf stage.

**Yucca:** Apply CIMARRON® PLUS HERBICIDE with 2,4-D in the spring through the fall prior to frost. A second application of CIMARRON® PLUS HERBICIDE at 0.375 to 0.625 ounces/acre (0.0113 lb ai/acre to 0.0188 lb ai/acre metsulfuron-methyl and 0.0035 lb ai/acre to 0.0059 lb ai/acre chlorsulfuron) with 2,4-D ester is suggested within two years of the initial treatment to control yucca seedlings and regrowth from rootstocks.

For best results, use a Crop Oil Concentrate (COC), Modified Seed Oil (MSO), or Modified Seed Oil/Organosilicone (MSO/OS) adjuvant type. The addition of ammonium nitrogen fertilizer may improve control. See Spray Adjuvants section for additional information. Aerial is the preferred application method.

Variation in weather (moisture and temperature extremes), yucca physiological condition, soil type, and extent of yucca root system will determine treatment effectiveness.

### **BRUSH CONTROL ON NON-CROPLAND SITES**

CIMARRON® PLUS HERBICIDE is registered for the control of undesirable brush growing in non-crop areas including grazed areas on these sites. Applications may be made by air, high volume ground application, low volume ground application and ultra-low volume ground application. Except as noted for multiflora rose, CIMARRON® PLUS HERBICIDE must be applied as a spray to the foliage.

The application volume required will vary with the height and density of the brush and the application equipment used. Generally, high volume ground application will require 100 to 400 gallons of water per acre; low volume ground application will require 20 to 50 gallons of water per acre; and ultra-low volume ground application will require 10 to 20 gallons of water per acre.

Regardless of the application volume and equipment used, thorough coverage of the foliage, particularly the terminal growing points, is necessary to optimize results.

**BRUSH SPECIES CONTROLLED ON NON-CROPLAND SITES**

<b>CIMARRON® PLUS HERBICIDE RATE*</b>					
<b>Species</b>	<b>High Volume Rate (Ounces per 100 Gallons)*</b>	<b>Broadcast Rate (Ounces per Acre)*</b>	<b>Species</b>	<b>High Volume Rate (Ounces per 100 Gallons)*</b>	<b>Broadcast Rate (Ounces per Acre)*</b>
Ash	1.25 – 2.5	1.25 – 3.75	Oaks	1.25 – 2.5	1.25 – 3.75
Aspen	1.25 – 2.5	1.25 – 3.75	Ocean spray (Holodiscus)	1.25 – 2.5	2.5 – 3.75
Black locust	1.25 – 2.5	1.25 – 3.75	Osage orange	1.25 – 2.5	2.5 – 3.75
Blackberry	1.25 – 2.5	1.25 – 3.75	Red maple	1.25 – 2.5	2.5 – 3.75
Camelthorn	1.25 – 2.5	1.25 – 3.75	Salmonberry	0.6 – 1.25	1.25 – 3.75
Cherry	1.25 – 2.5	1.25 – 3.75	Snowberry	0.6 – 1.25	1.25 – 3.75
Cottonwood	1.25 – 2.5	2.5 – 3.75	Spruce (black and white)	3.75	2.5 – 3.75
Eastern red cedar	1.25 – 2.5	2.5 – 3.75	Thimbleberry	0.6 – 1.25	1.25 – 3.75
Elder	1.25 – 2.5	2.5 – 3.75	Tree of heaven (Ailanthus)	1.25 – 2.5	1.25 – 2.5
Elm	1.25 – 2.5	1.25 – 3.75	Wild roses	0.6 – 1.25	1.25 – 3.75
Firs	3.75	1.25 – 2.5	Willow	0.6 – 1.25	1.25 – 3.75
Hawthorn	1.25 – 2.5	1.25 – 3.75	Yellow poplar	0.6 – 1.25	1.25 – 3.75
Honeysuckle	1.25 – 2.5	0.6 – 1.25	* - 0.6 ounces of CIMARRON® PLUS HERBICIDE is equal to 0.018 lb metsulfuron-methyl and 0.0056 lb chlorsulfuron. - 1.25 ounces of CIMARRON® PLUS HERBICIDE is equal to 0.0375 lb metsulfuron-methyl and 0.0117 lb chlorsulfuron. - 2.5 ounces of CIMARRON® PLUS HERBICIDE is equal to 0.075 lb metsulfuron-methyl and 0.023 lb chlorsulfuron. - 3.75 ounces of CIMARRON® PLUS HERBICIDE is equal to 0.113 lb metsulfuron-methyl and 0.035 lb chlorsulfuron.		
Mulberry	1.25 – 2.5	2.5 – 3.75			
Multiflora rose	1.25 – 2.5	1.25 – 3.75			
Muscadine (wild grape)	1.25 – 2.5	2.5 – 3.75			



For low volume and ultra-low volume ground applications, mix 5 to 10 ounces of CIMARRON® PLUS HERBICIDE (0.15 to 0.30 lb metsulfuron-methy and 0.047 to 0.094 lb chlorsulfuron) per 100 gallons of spray solution.

#### **Application Timing**

Make a foliar application of the specified rate of CIMARRON® PLUS HERBICIDE during the period from full leaf expansion in the spring until the development of full fall coloration on deciduous species to be controlled. Coniferous species may be treated at anytime during the growing season.

#### **Spot Treatment**

CIMARRON® PLUS HERBICIDE may be used for the control of many species of weeds including noxious/invasive weeds in certain established grasses growing on non-crop areas.

Refer to the "Weeds Controlled" section for a listing of susceptible weed species and the application rate per acre per the target weed.

Or, mix one gram of CIMARRON® PLUS HERBICIDE per one gallon of water along with a surfactant. Spray to the point of wetting the entire surface of the target weeds, approximately 40 gallons of solution per acre.

#### **Tank Mix Combinations**

CIMARRON® PLUS HERBICIDE may be tank mixed with any product labeled for non-crop brush control at the application rates specified on the companion product's label for the pests specified on the product's companion label. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Low Rate Applications**

##### **Imazapyr**

Combine CIMARRON® PLUS HERBICIDE with imazapyr herbicide and apply as a broadcast spray. For

aerial applications use a minimum of 15 gallons per acre spray volume. In addition to species listed above controlled by CIMARRON® PLUS HERBICIDE, this combination controls black gum, hophornbeam, sassafras, sweetgum, Vaccinium species, dogwood, myrtle dagoon, hickories, and persimmon.

##### **Picloram + Imazapyr**

Combine CIMARRON® PLUS HERBICIDE with imazapyr and picloram. Apply as a high volume spray. This tank mix controls cherry, elms, box elder, maples, hackberry, redbud, ash, oaks (including shingle oak), black locust, and sassafras.

\* Picloram is a restricted use pesticide.

##### **Spotgun Basal Soil Treatment**

For control of multiflora rose, prepare a spray suspension of CIMARRON® PLUS HERBICIDE by mixing 1.25 ounce (0.0375 lb metsulfuron-methyl and 0.0117 lb chlorsulfuron) per gallon of water. Mix vigorously until the CIMARRON® PLUS 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. For best results, make applications from early spring to summer.

#### **SPRAY ADJUVANTS**

Unless otherwise specified, applications of CIMARRON® PLUS HERBICIDE must include either an oil concentrate or a nonionic surfactant. If another herbicide is tank mixed with CIMARRON® PLUS HERBICIDE, select adjuvants authorized for use with both products. Antifoaming agents may be used if needed. All adjuvants used must contain only EPA-exempt ingredients.

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

- Apply at 1% v/v (1 gal per 100 gal spray solution) or 2% under arid conditions.
- 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 qt per 100 gal 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.
- On fescue pastures use only NIS at a more limited rate. See Fescue Precautions.

### **Ammonium Nitrogen Fertilizer**

An ammonium nitrogen fertilizer can be added to NIS, COC or MSO and may enhance weed control.

- Use 2 quarts/acre of a high-quality urea ammonium nitrate (UAN), e.g. 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.
- DO NOT use low rates of fertilizer as a substitute for NIS, COC or MSO.
- See "Tank Mixtures with Liquid Solution Fertilizer" for instructions on using fertilizer as a carrier in place of water.

### **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.

## **APPLICATION INFORMATION**

### **PRODUCT MEASUREMENT**

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

### **MIXING INSTRUCTIONS**

1. Fill the tank a quarter to one third 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® PLUS HERBICIDE.

3. Continue agitation until the CIMARRON® PLUS HERBICIDE is fully dispersed, at least 5 minutes.
4. Once the CIMARRON® PLUS HERBICIDE is fully dispersed, maintain agitation and continue filling tank with water. Mix CIMARRON® PLUS HERBICIDE thoroughly 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® PLUS HERBICIDE spray mixture within 24 hours of mixing to avoid product degradation.
8. If CIMARRON® PLUS HERBICIDE and a tank mix partner are to be applied in multiple loads, pre-slurry the CIMARRON® PLUS HERBICIDE in clean water prior to adding to the tank. This will prevent the tank mix partner or adjuvant from interfering with the dissolution of the CIMARRON® PLUS HERBICIDE. DO NOT use CIMARRON® PLUS HERBICIDE with spray additives that reduce the pH of the spray solution to below 3.0.

### **APPLICATION METHOD**

#### **Ground Broadcast Application**

To obtain optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles. For flat-fan nozzles, use at least 10 GPA for broadcast applications. 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%. Use 50-mesh screens or larger.

### **Ground Spot Application**

Spot applications may be made using equipment including back pack, ATV, or hand sprayers. Thorough coverage of foliage and stems is necessary to optimize results. Use an adjustable conejet nozzle with an orifice size of X6 to X12 or equivalent. The application volume required will vary with the height and density of the weeds or brush and the application equipment used.

### **Aerial Application**

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage. Use a minimum of 3 GPA.

When applying CIMARRON® PLUS 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 **MANDATORY SPRAY DRIFT** section of this label.

### **Chemigation**

DO NOT apply through any type of irrigation system.

### **SPRAY EQUIPMENT**

For specific application equipment, refer to the manufacturer's specifications for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc. Be sure to properly calibrate air or ground equipment 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® PLUS HERBICIDE in suspension.

### **Before Spraying CIMARRON® PLUS HERBICIDE**

Spray equipment must be clean before CIMARRON® PLUS 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 below.

### **At the End of the Day**

When multiple loads of CIMARRON® PLUS HERBICIDE are applied, it is directed 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® PLUS 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® PLUS 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 gal of household ammonia\* (contains 3% active) for every 100 gal 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) listed 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 ENVIRONMENTAL SCIENCE U.S., LLC-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your agricultural dealer, applicator, or ENVIRONMENTAL SCIENCE U.S., LLC 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-clean aerial spray tanks prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When CIMARRON® PLUS HERBICIDE is tank mixed with other pesticides, examine all required cleanout procedures and follow the most rigorous procedure.
4. In addition to this cleanout procedure, follow all precleanout guidelines on subsequently applied products as per the individual labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of CIMARRON® PLUS HERBICIDE and applications of other pesticides to CIMARRON® PLUS HERBICIDE sensitive crops during the same spray season, dedicate a sprayer to CIMARRON® PLUS HERBICIDE to further reduce the chance of crop injury.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

**PESTICIDE STORAGE:** Store product in original container only. Store in a cool, dry place.

**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 Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons):** 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 and drain for 10 seconds after the flow begins to drip. Fill the container one fourth 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 Rigid Plastic and Metal Containers (Capacity Greater Than 5 Gallons):** 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 one fourth full with water. Replace and tighten closures.

*(continued)*

## STORAGE AND DISPOSAL *(continued)*

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 Rigid 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.

**All Refillable Containers:** Refillable container. Refilling Container: Refill this container with

CIMARRON® PLUS HERBICIDE containing metsulfuron-methyl and chlorsulfuron 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 container, contact ENVIRONMENTAL SCIENCE U.S., LLC 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 ENVIRONMENTAL SCIENCE U.S., LLC 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.

Do not transport if 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 ENVIRONMENTAL SCIENCE U.S., LLC at 1-800-424-9300, day or night.

## CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, plant injury, other property damage, as well as other unintended consequences may result because of factors beyond the control of Environmental Science U.S., LLC. Those factors include, but are not limited to, weather conditions, presence of other materials or the manner of use or application. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ENVIRONMENTAL SCIENCE U.S., LLC MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Environmental Science U.S., LLC is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ENVIRONMENTAL SCIENCE U.S., LLC DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT ENVIRONMENTAL SCIENCE U.S., LLC'S ELECTION, THE REPLACEMENT OF PRODUCT.

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

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(01)08101121000800



# CIMARRON<sup>®</sup>

## Plus Herbicide

**Dry-Flowable Granule**

**Active Ingredients**

Metsulfuron Methyl	
Methyl 2-[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl) amino]carbonyl]amino]sulfonyl]benzoate.....	48%
Chlorsulfuron	
2-Chloro-N-[[4-methoxy-6-methyl-1,3,5-triazin-2-yl) aminocarbonyl]benzenesulfonamide.....	15%
<b>Other Ingredients</b> .....	<u>37%</u>

**By Weight**

**Total** .....100%

**EPA Reg. No. 101563-183**

**EPA Est. No.**

**85748572**

**85780220C 221216AV1**

**Nonrefillable Container**

**Net Weight:**

**2 Ounces**

See Panel for First Aid Instructions  
and Booklet for Complete  
Precautionary Statements and  
Directions for Use.

**METSULFURON-METHYL & CHLORSULFURON GROUP 2 HERBICIDE**

### KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

#### FIRST AID

**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.

**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 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.



**PRODUCED FOR**  
**Environmental Science U.S., LLC**  
**5000 CentreGreen Way, Suite 400**  
**Cary, NC 27513**

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