



## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

August 21, 2024

Nikki Benson  
Regulatory Specialist  
Nufarm Americas Inc.  
4000 Aerial Center Parkway, Suite 101  
Morrisville, NC 27560

Subject: Label Amendment - Registration Review Mitigation for Chlorimuron Ethyl  
Product Name: Cloak Herbicide  
EPA Registration Number: 71368-83  
Application Date: June 13, 2022  
Decision Number: 585247

Dear Nikki Benson:

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

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. You must

submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Concepción Rodríguez by phone at 202-566-0820, or via email at [rodriguez.concepcion@epa.gov](mailto:rodriguez.concepcion@epa.gov).

Sincerely,

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

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

ENCLOSURE: Stamped label

**ACCEPTED**

Aug 21, 2024

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under

EPA Reg. No. 71368-83

**METRIBUZIN &  
CHLORIMURON ETHYL****GROUP****5 & 2****HERBICIDES**

# CLOAK<sup>®</sup>

# HERBICIDE

**DISPERSIBLE GRANULES****FOR SELECTIVE BURNDOWN AND RESIDUAL WEED CONTROL IN SOYBEANS****ACTIVE INGREDIENTS (by weight):**

Metribuzin: 4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one ..... 64.3%

Chlorimuron Ethyl: Ethyl 2-[[[(4-chloro-6-methoxypyrimidin-2-yl)amino]carbonyl]amino]sulfonyl]benzoate ..... 10.7%

**OTHER INGREDIENTS:** ..... 25.0%**TOTAL:** ..... 100.0%**KEEP OUT OF REACH OF CHILDREN****WARNING / AVISO**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If  
you do not understand the label, find someone to explain it to you in detail.)**SEE [BELOW] [INSIDE BOOKLET] [BACK PANEL] FOR [FIRST AID] [AND] [ADDITIONAL]  
[PRECAUTIONARY STATEMENTS] [AND] [DIRECTIONS FOR USE]**

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

For Medical Emergencies Only, Call (877) 325-1840

**FIRST AID****IF IN EYES**

- Hold eye open and rinse slowly and gently with water for 15 to 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 ON SKIN  
OR CLOTHING**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

**HOT LINE NUMBER**Have the product container or label with you when calling a poison control center or doctor, or going for  
treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

EPA REG. NO. 71368-83

EPA EST. NO.

Manufactured For

NUFARM INC.

11901 S. AUSTIN AVE.  
ALSIP, IL 60803

NET [WEIGHT] [CONTENTS] \_\_\_\_\_ LBS. ( \_\_\_\_\_ Kg)

[Designation as "NONREFILLABLE" or "REFILLABLE" for containers &gt; 50 Lbs.]

071368-00083.20240813.EPA Amendment.SU ID  
NUP-07360

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
WARNING / AVISO**

Causes substantial but temporary eye injury. Do not get in eyes or on clothing.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride,
- Protective eyewear.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product.

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

Important: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "Applicators and Other Handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

**USER SAFETY RECOMMENDATIONS**

**Users Should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

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

**Surface Water Advisory Statement:** 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 several months or more 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 chlorimuron-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.

**DIRECTIONS FOR USE**

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

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

This product must be used only in accordance with directions on this label. Nufarm will not be responsible for losses or damage resulting from the use of this product in any manner not specifically directed by Nufarm.

**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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is

Coveralls

chemical-resistant gloves made of any waterproof material including polyethylene or polyvinyl chloride

shoes plus socks

and protective eyewear

## MANDATORY SPRAY DRIFT MANAGEMENT

### Aerial Applications:

- Do not release spray at a height greater than 10 feet 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 S641).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S641).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions."

### Ground Boom Applications:

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572).
- 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 S572.3) 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

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 feet 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.

**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.

## **WEED RESISTANCE MANAGEMENT**

For resistance management, please note that CLOAK Herbicide contains both a Group 5 (metribuzin) and a Group 2 (chlorimuron ethyl) herbicides. Any weed population may contain plants naturally resistant to Group 5 and/or Group 2 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

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

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of CLOAK Herbicide or other Group 2 and Group 5 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage ( or other mechanical control methods), cultural ( e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available. Users should report lack of performance to registrant or their representative.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Nufarm at 855-280-6609.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. 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. Do not assume that each listed weed is being controlled by this mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.

Suspected herbicide-resistant weeds may be identified by these indicators:

- \* Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- \* A spreading patch of non-controlled plants of a particular weed species; and
- \* Surviving plants mixed with controlled individuals of the same species.

## **NON-TARGET ORGANISM ADVISORY STATEMENT**

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 ADVISORIES** section of this label.

## **WINDBLOWN SOIL PARTICLES**

CLOAK 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 affects the movement of windblown



soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying CLOAK Herbicide if prevailing local conditions may be expected to result in off-site movement.

### FOR USE ON SOYBEANS ONLY

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

Low pressure and high volume hand wand equipment is prohibited.

**Single Application:** Do not apply a full rate of this product more than once per soybean cropping cycle. Maximum rates are soil chemistry and geographically specific, please see full label for rate maximum.

**Split Application:** Two applications totaling the fully labeled rate of this product may be made per soybean cropping cycle. Do not exceed the full labeled rate for the geography. Maximum rates are soil chemistry and geographically specific, please see full label for rate maximum.

**Grazing and Feeding Treated Soybean Vines:** Treated vines may be grazed or fed to livestock 40 days after application.

### PRODUCT INFORMATION

This herbicide is a dispersible granule formulation to be mixed with water and sprayed for selective burndown and residual weed control in soybeans. When applied according to the instructions on this label, it will control many broadleaf weeds and provide partial control of nutsedge and annual grasses.

This product is a soybean herbicide with two modes of action, which will deliver consistent burndown of winter annuals, even under cool, wet conditions. This product maximizes early season residual control of tough weeds, allowing an in-crop glyphosate application to be made closer to crop canopy. This product rapidly inhibits the growth of susceptible weeds and may be tank mixed with many other products for increased weed control. This product may be applied as a burndown for control of early emerged weeds.

Following a burndown application, growth of susceptible weeds ceases, followed by tissue yellowing, browning, and death of the growing point. Include a spray additive recommended in the burndown sections of this label. This product may be applied by ground (broadcast or band) or by air. Certain crop rotation and pH restrictions apply. Refer to 'Geographic Use Regions' and 'Rotational Crop Guidelines 1 or 2'. Consult label text for complete instructions. Always read and follow label directions for use.

Residual applications of this product require rainfall or sprinkler irrigation to activate the herbicide. Degree of control and duration of effect depend on: rate used, weed spectrum, growing conditions at and following time of treatment, soil pH, texture, organic matter, moisture and precipitation.

Best residual control is obtained if this product is applied to moist soil and followed by rainfall or irrigation (~1") before weeds germinate. Several small rainfalls of less than 1/4" each are not as beneficial as one large rainfall of 1/2 to 1". On dry soil, more moisture is required for activation (1 to 2") before weed emergence. If moisture is insufficient to activate the herbicide, a rotary hoeing or shallow cultivation should be made after emergence of the crop while weeds are small enough to be controlled by mechanical means.

### IMPORTANT

Injury to or loss of desirable trees or vegetation may result from failure to observe the following: Do not apply 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. Do not use on lawns, walks, driveways, tennis courts or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds during storage.

**Prior to using this product, consideration should be given to crop rotation plans.** Crops other than soybeans may be extremely sensitive to low concentrations of this product remaining in the soil the next planting season. Choice of rotation crop is restricted following application of this product. (See "ROTATIONALCROP GUIDELINES" for your geographical region.)

Thoroughly clean this product from application equipment immediately after use and prior to spraying crops other than soybeans. Failure to remove even small amounts of this product from application equipment may result in injury to subsequently sprayed crops.

Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate groundwater which may be used as drinking water. Metribuzin has been found in groundwater as a result of agricultural use. Users are advised not to apply metribuzin where the water table (groundwater) is close to the surface and where the soils are very permeable, i.e., well drained soils such as loamy sands.

Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

### PRODUCT RESTRICTIONS

- Do not apply in land that has been or will be treated with metsulfuron and/or chlorsulfuron-containing herbicides in Nebraska and Kansas without observing the rotational crop intervals for those products.
- Do not use on lawns, walks, driveways, tennis courts or similar areas.
- Do not contaminate any body of water.
- Do not tank mix this product with organophosphate insecticides.
- Do not apply this product within 14 days before or after an application of an organophosphate insecticide.
- Do not apply 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.
- Maximum rates are soil chemistry and geographically specific, please see full label for rate maximum.

## PRODUCT PRECAUTIONS

- Because most crops are highly sensitive to this product, all direct or indirect contact (such as spray drift) to crops or to land scheduled to be planted to crops other than soybeans should be avoided.
- If a soybean variety is suspected of being sensitive to metribuzin, check with the soybean seed company before treating a field of that soybean variety with this product containing metribuzin.
- Soybean stunting may occur if excessive rainfall occurs after application but before soybeans germinate. Injury is more prevalent under poor drainage or compacted conditions or when soil is saturated for long periods of time. Soybeans rapidly outgrow stunting once favorable growing conditions return.
- Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, or drought may weaken soybean seedlings and increase possibility of crop injury.
- Thoroughly clean this product from application equipment immediately after use and prior to spraying crops other than soybeans.
- Failure to remove even small amounts of this product from application equipment may result in injury to subsequently sprayed crops.
- Injury to soybeans may occur if this product is used in conjunction with soil-applied organophosphate pesticides such as Di-Syston®, Mocap®, NemaCur®, Thimet®, parathion, or Lorsban™.
- Prevent drift of spray to desirable plants.
- Keep from contact with fertilizers, insecticides, fungicides and seeds during storage.

## PESTICIDE HANDLING

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

## BIOLOGICAL ACTIVITY

This product rapidly inhibits the growth of susceptible weeds. Following application of pre-plant incorporation or preemergence treatment, susceptible weeds may germinate and emerge, but growth then ceases and leaves become yellow 3-5 days after emergence. Death of leaf tissue and growing point will follow in some species while others will remain green but stunted and noncompetitive. Following a burndown application, growth of susceptible weeds ceases followed by tissue yellowing and browning and death of the growing point.

This product provides partial control of some annual grasses when used pre-plant or preemergence but other products may be needed to ensure adequate grass control.

## THE IMPORTANCE OF SOIL pH

Soil pH varies greatly, even within the same field. Variations in pH as much as 2 pH units are common. Composite soil samples taken across an entire field, such as those samples taken for soil fertility recommendations, may not detect areas of high pH. Subsampling is recommended for areas likely to have pH values higher than the field average. The following is a non-inclusive list of potential high pH areas where subsampling is recommended.

- Where different soil types are evident within a field, sample soil types separately.
- Where conditions vary within a field, sample areas separately, such as:
  - areas bordered by limestone gravel roads,
  - river bottoms subject to flooding,
  - low areas in hardpan soils where evaporative ponds may occur,
  - eroded hillsides,
  - along drain tile lines, and
  - areas where drainage ditch spoil has been spread.
- Where lime has not been deeply incorporated, soil may exhibit significantly higher pH values in the upper 3 inches of soil. Composite soil samples taken at a 6 to 8 inch depth may not reflect the elevated pH near the surface. In these cases shallow sampling, the upper 3 inches, is advised.
- Determine soil pH by laboratory analysis using a 1:1 soil:water suspension.

## 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.

## APPLICATION EQUIPMENT

### SPRAYER PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Start with clean, well maintained application equipment. Follow the spray tank cleanout procedures specified on the label of the product previously sprayed. If no cleanout procedure is provided, follow the cleanout procedure below for all application equipment.

STEP 1. Thoroughly rinse sprayer, tanks, booms, nozzles, and hoses with clean water. Loosen and physically remove visible deposits.

STEP 2. Partially fill the tank with clean water and add household ammonia (one gallon of 3% active for every 100 gallons of water). A similar sprayer cleaner may also be used by following the label directions for that purpose. Complete filling the tank with water and flush the cleaning solution through the boom and hoses. Let stand for 15 minutes with agitation or recirculation and then drain the tank after flushing the hoses, boom and nozzles.

STEP 3. Thoroughly rinse the sprayer, hoses, boom and nozzles with clean water.

STEP 4. Follow label directions of the product previously sprayed for rinsate disposal.

Notes: During an extended period where spraying or mixing equipment will be used to apply multiple loads of this product, at the end of each day of spraying partially fill the tank with fresh water, flush the boom and hoses and allow to sit overnight. A steam cleaning of aerial spray tanks is recommended to dislodge any visible pesticide deposits.

### EQUIPMENT / SPRAY VOLUMES

#### Ground Application, conventional tillage:

- Use a minimum of 10 gallons per acre to ensure uniform coverage of soil and the best performance.
- For best performance, select nozzle and pressure combinations that deliver coarse to very coarse spray droplets, as indicated, for example, by ASAE standard S572.

#### Ground Application, conventional tillage - burndown:

- Use a minimum of 15 gallons per acre to ensure thorough coverage of the weeds and the best performance. For small weeds and/or heavy crop residue, increase the gallonage to ensure coverage.
- For best performance, select nozzle and pressure combinations that deliver medium spray droplets, as indicated, for example, by ASAE standard S572.

#### Aerial Application:

This product may be applied by air for early pre-plant, pre-plant incorporated or preemergence use on soybeans. Apply uniformly with properly calibrated aerial equipment. Use a minimum of 2 gallons of water per acre. Avoid overlapping. Continuous agitation of the spray tank is required to keep the material in suspension.

### MIXING INSTRUCTIONS

Fill tank 1/4 full with water. Start agitation system, add this product and continue adding water. Add separately each additional component of any tank mix while adding water. Continue agitation throughout. If poor mixing should occur with any component, premix the component with two parts water before adding to the spray tank.

A fertilizer solution may be used in the spray mixture. Small quantities should be tested for compatibility by the following procedures before full-scale mixing.

1. Put 1 pint of fertilizer solution in a quart jar.
2. Mix 2 teaspoons of this product with 2 tablespoons of water; mix thoroughly and add to fertilizer solution.
3. Close jar and shake well.
4. If other herbicides are to be used in the mixture, premix 2 teaspoons of wettable powder or 1 teaspoon of liquid with 2 tablespoons of water; add to CLOAK / fertilizer solution mixture.
5. Close jar and shake well.
6. Watch mixture for several seconds; check again in 30 minutes.
7. If mixture does not separate, foam, gel, or become lumpy, it may be used.
8. Mixing ability may be improved by adding compatibility agents.

Provided the above procedure shows the mixture to be compatible, prepare the tank mixture as follows:

Add the fertilizer solution to the spray tank first, with the agitator running, add the required amount of this product and thoroughly mix.

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.

Use CLOAK spray preparations the same day as mixed or product degradation may occur. Thoroughly reagitate and remix before using, if allowed to settle.

### SPRAYER CLEANUP

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of this product as follows:\*

STEP 1. Drain tank; thoroughly hose down the interior surfaces of the tank; then flush tank, boom, and hoses with clean water for a minimum of 5 minutes.

STEP 2. Partially fill the tank with clean water and add household ammonia (one gallon of 3% active for every 100 gallons of water). A similar sprayer cleaner may also be used by following the label directions for that purpose. Complete filling the tank with water and flush the cleaning solution through the boom, hoses and nozzles. Add water to completely fill the tank and allow to agitate or recirculate for at least 15 minutes. Again flush the boom, hoses and nozzles, and drain the tank.

STEP 3. Remove the nozzles and screens and clean separately in a bucket containing water and the cleaning agent.

STEP 4. Repeat Step 2.

STEP 5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing water through the boom and hoses.

\* Equivalent amounts of an alternate strength ammonia solution or a tank cleaner specified for this type of use.

## **APPLICATION INFORMATION - ALL USES**

### **APPLICATION METHODS**

- Fall-applied, early pre-plant, pre-plant and preemergence, including burndown.
- Pre-plant incorporated. Incorporate uniformly, no deeper than the top 1 to 2" of soil prior to planting soybeans.
- Flat fan nozzles are preferred.
- This product may be followed sequentially by many postemergence herbicides, such as glyphosate, Synchrony® XP, Assure® II, or Flexstar™.
- Spring-applied CLOAK may follow fall applications of CLOAK EX.
- For sequential programs using chlorimuron ethyl-containing herbicides (CLOAK, CLOAK EX, CURIO®, and/or Synchrony XP), do not exceed 0.82 ounces ai (0.05 lbs ai) per acre chlorimuron ethyl in the Central Region States or 1.07 ounces ai (0.067 lbs ai) per acre chlorimuron ethyl in the Southern Region States in any one soybean growing cycle.

### **TIMING TO CROP STAGE**

- After fall harvest, this product may be applied any time prior to soybean emergence, except on frozen ground.
- Do not apply this product after the soybean crop has emerged.
- Do not apply this product to frozen ground.

### **BURNDOWN INFORMATION**

Apply this product when weeds are young and actively growing. Applications made to weeds larger than the indicated sizes, or to weeds under stress, may result in unsatisfactory control.

When used for burndown, this product is rainfast after one hour.

- Use a minimum of 15 gallons per acre to ensure thorough coverage of the weeds and the best performance. For small weeds and/or heavy crop residue, increase the gallonage to ensure coverage.
- For best performance, select nozzle and pressure combinations that deliver medium spray droplets, as indicated, for example, by ASAE standard S572.

### **SPRAY ADDITIVES**

Applications of this product used for burndown must include either a crop oil concentrate or a nonionic surfactant. Crop oil concentrate is the required adjuvant system unless tank mixing with a product that precludes use of crop oil concentrate.

Consult local fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with this product, select adjuvants authorized for use with both products. Adjuvants must contain only EPA-exempt ingredients (40 CFR 1001).

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

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

### **TANK MIXES**

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.

This product may be tank mixed or followed with sequential applications of other products registered for use in soybeans.

To the extent consistent with applicable law, weed control and crop safety resulting from the use of tank mixtures not specifically noted on this label, or in separately published instructions, are the responsibility of the user.

2,4-D (LVE) is the isooctyl (2-ethylhexyl) ester of 2,4-Dichlorophenoxyacetic acid. This product is sold under a variety of trade names.

### **Tank Mix Compatibility Testing**

Perform a jar test prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid

and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily film or layers, or other precipitates, it is not compatible.

#### RATES AND GEOGRAPHIC USE

The geographical use regions for this product are defined below:

##### Central Region

The states of Delaware, Illinois, Indiana, Iowa (fields east of State Route 63 or south of I-80), Kansas, Maryland, Michigan, Missouri (except the Bootheel), Nebraska (fields south of Route 30 and east of Route 281), New Jersey, New York (fields south of I-90), Ohio, Pennsylvania, Virginia, West Virginia and Wisconsin (fields south of I-90 between La Crosse and Madison and fields south of I-94 between Madison and Milwaukee).

- On soils with a composite pH greater than 7.0, do not exceed 2.25 ounces (0.09 lbs metribuzin and 0.015 lbs chlorimuron ethyl) per acre of this product.
- In the states of Michigan, New York, and Wisconsin, do not use the 2.25 ounces (0.09 lbs metribuzin and 0.015 lbs chlorimuron ethyl) per acre rate on soils where the composite pH exceeds 7.6.
- In the states of New York and Wisconsin, do not exceed 2.25 ounces (0.09 lbs metribuzin and 0.015 lbs chlorimuron ethyl) per acre per season.
- This product may be used on fields which are composite pH 7.0 or less, but which may contain isolated areas where the pH exceeds 7.0.

##### Southern Region

The states of Alabama (except the "Black Belt" where soil pH must be less than 7.0), Arkansas, Florida, Georgia, Kentucky, Louisiana, Missouri (Bootheel region only), Mississippi (except the "Black Belt" where soil pH must be less than 7.0), North Carolina, Oklahoma, South Carolina, Tennessee and Texas (fields east of Route 183).

- On soils with a composite pH greater than 7.0, do not exceed 3.5 (0.14 lbs metribuzin and 0.023 lbs chlorimuron ethyl) ounces per acre of this product.
- Do not apply to Black Belt Soils of Alabama and Mississippi with a soil pH greater than 7.0 or history of nutrient deficiency such as iron chlorosis, as injury may occur.
- Precaution: Injury to soybeans may occur if this product is used on soils having a calcareous surface layer or pH greater than 7.5.

#### FALL APPLICATIONS

##### Timing

- This product can be applied to no-till or conservation fields anytime after the fall harvest.

##### Timing to Weeds: Burndown

For best results, apply to annual broadleaf weeds that are up to 3 inches in height or diameter and to perennial broadleaf weeds that are up to 6 inches in height or diameter. Annual grasses should not exceed 1 inch in height. Where the rate is not restricted by soil pH, use higher CLOAK rates for improved and longer residual activity.

**RATE TABLE 1 - FALL OR EARLY SPRING USE RATES BY REGION**

REGION	pH	RATE OUNCES PER ACRE *
<b>In Medium and Fine Soils - 1.5 to 4.0% organic matter</b>		
<b>Central Region</b> Delaware, Illinois, Indiana, Iowa*, Kansas, Maryland, Michigan*, Missouri* (except the Bootheel), Nebraska*, New Jersey, New York*, Ohio, Pennsylvania, Virginia, West Virginia and Wisconsin*	No pH restriction	2.25 ounces/A
	Composite soil pH of 7 or less	3.0 to 7.0 ounces/A
<b>Southern Region</b> Alabama*, Arkansas, Georgia, Kentucky, Louisiana, Missouri (bootheel region only), Mississippi*, North Carolina, Oklahoma, South Carolina, Tennessee, Texas* (fields east of Rte. 183)	No pH restriction	2.25 to 3.5 ounces/A
	Composite soil pH of 7 or less	greater than 3.5 to 7.0 ounces/A

\* See 'Geographic Use Regions' section above for state specific restrictions for Alabama, Iowa, Michigan, Mississippi, Missouri, Nebraska, New York, Texas, and Wisconsin.

##### Weeds Controlled - Burndown

For the best burndown results, the addition of 2,4-D LVE is recommended, and is required for control of some weeds. 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.

This product applied at 2.25 to 7 ounces per acre will burndown the following weeds.

#### Burndown Control of Emerged Winter Annual, Perennial, and Summer Annual Weeds

Annual Grasses	Garlic, Wild*	Pennycress, Field	Speedwell (Field, Purselane)
Bittercress, Small-flowered	Henbit	Pepperweed, Virginia	Sunflower
Bushy Wallflower	Ladysthumb	Pigweed, Redroot	Thistle, Canadian
Buttercup, Smallflower	Lambsquarters*	Ragweed, Common	(above ground portion)
Butterweed (Cressleafgroundsel)	Lettuce, Prickly	Ragweed, Giant	Velvetleaf
Dandelion	Marestail (horseweed)*	Shepherdspurse	Whitlowgrass
Deadnettle, Purple	Mustard, (Tansy, Wild)	Smartweed, Pennsylvania	Yellow-rocket

\* For adequate control of these weeds, tank mix with 2,4-D LVE.

For adjuvant and gallonage requirements for burndown applications, refer to the 'Burndown Information', 'Spray Additives', and 'Tank

Mixes' sections of this label under the 'Application Information - All Uses' section.

#### Chickweed Burndown

- For best results, add the labeled rate of VICTORY herbicide at approves rates, to CLOAK for control of up to 6 inch common chickweed.
- Alternatively, metribuzin or glyphosate-containing products registered for soybeans may be added for chickweed burndown.

#### Weeds Controlled - Preemergence

Fall through early Spring applications of 2.25 ounces per acre CLOAK will provide limited residual control of listed weeds to contribute to a clean seedbed at normal planting times.

Fall through early Spring applications of 3 to 7 ounces per acre CLOAK will provide acceptable preemergence control, or partial control (suppression), of the following weeds through normal planting dates.

#### Weeds Controlled or Suppressed Preemergence

##### CONTROL

Cocklebur  
Ladysthumb  
Lambsquarters  
Henbit  
Marestail  
Pigweed  
(Redroot, Smooth)  
Purslane speedwell  
Ragweed, Common  
Smartweed, Pennsylvania  
Winter annual mustards  
(Pennycress, Bittercress, Shepherdspurse, Whitlow grass, Yellow-rocket)

##### SUPPRESSION

Annual Grasses\*  
(Foxtails, Barnyardgrass, Crabgrass, Panicum)  
Chickweed, Common  
Jimsonweed  
Morningglory, Annual\*  
Nutsedge, Yellow  
Prickly Sida  
(Teaweed)  
Ragweed, Giant  
Velvetleaf

\* With 2.25 ounces per acre applications of CLOAK, heavy weed pressure, delayed planting, or adverse environmental conditions may require additional burndown control measures at planting.

## SPRING APPLICATIONS

#### Application Methods

Apply CLOAK or CLOAK tank mixes using one of the following application methods.

- Early pre-plant or pre-plant in conservation tillage, no-till or stale seedbed systems.
- Pre-plant incorporated (incorporate uniformly, no deeper than the top 1 to 2 inches of soil prior to planting soybeans).
- Preemergence application.
- Sequential applications followed by planned postemergence treatments.

#### Weeds Controlled - Preemergence

When used as directed, this product will provide residual control of the following weeds. Lower rates are recommended for planned sequential programs and higher rates are recommended for full-season programs. See the Rate Tables below.

Cocklebur*	Morningglory*	Pigweed	Ragweed, Common
Florida Beggarweed	Annual	Palmer	Ragweed*, Giant
Hemp Sesbania	Ivyleaf	Redroot	Sicklepod*
Hophornbeam, Copperleaf	Entireleaf	Smooth	Smartweed, Pennsylvania
Jimsonweed	Pitted	Spiny Amaranth	Spotted Spurge
Ladysthumb	Smallflower	Poinsettia (Wild)	Sunflower
Lambsquarters	Tall	Prickly Sida (Teaweed)	



Mustard, Wild

Purslane, Common

Velvetleaf

\* Large-seeded weeds, germinating deep in the soil such as morningglory, sicklepod, cocklebur and giant ragweed or other weeds which may emerge at various times during the growing season may require a cultivation or a postemergence herbicide application for season-long control.

When used as directed, this product will provide partial control of the following weeds:

Annual Grasses

(Barnyardgrass, Broadleaf signalgrass, Crabgrass,  
Foxtail species, Panicum, Texas and Fall)

Burcucumber

Chickweed, Common

Johnsongrass (seedling)

Mexicanweed

Nutsedge, (Purple, Yellow)

## CENTRAL REGION STATES

### - Specific Use Directions

Spring applications of this product may be applied at planting or up to 45 days before planting.

Giving careful consideration to soil type, soil pH, organic matter, rotational crop intervals, geographic location, and weed pressure, select a rate of CLOAK from Rate Table 2.

RATE TABLE 2 - EARLY PRE-PLANT, PRE-PLANT BURNDOWN, PRE-PLANT INCORPORATED AND PREEMERGENCE	
SOIL TEXTURE	BROADCAST RATE OUNCES PER ACRE
0.5 to 4.0% organic matter	
<b>Coarse:</b> Loamy Sand, Sandy Loam	4.0 to 5.0 ounces/A
<b>Medium:</b> Loam, Silt Loam, Silt, Sandy Clay Loam	5.0 to 6.0 ounces/A
<b>Fine:</b> Silty Clay Loam, Clay Loam, Clay	5.0 to 7.0 ounces/A

### FOR SEASON-LONG GRASS CONTROL - CENTRAL REGION STATES

This product may not provide season-long preemergence control of grasses. For improved grass control, this product may be:

- Followed as needed by a postemergence grass herbicide such as Assure® II herbicide, or, in glyphosate tolerant soybeans, this product may be followed with an in-season glyphosate application.
- Tank mixed with other grass herbicides such as alachlor, metolachlor and pendimethalin.
- 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.

### PRE-PLANT BURNDOWN - CENTRAL REGION STATES

In addition to providing season-long preemergence control of certain broadleaf weeds and partial control of other broadleaf weeds and annual grasses, this product will provide burndown control of the following broadleaf weeds up to 3" in diameter or height and annual grasses up to 1".

Annual Grasses

Bittercress, Small-flowered

Bushy Wallflower

Buttercup, Smallflower

Butterweed (Cressleaf groundsel)

Dandelion

Deadnettle, Purple

Garlic, Wild\*

Henbit

Ladysthumb

Lambsquarters\*

Lettuce, Prickly

Marestail (horseweed)\*

Mustard, (Tansy, Wild)

Pennycress, Field

Pepperweed, Virginia

Pigweed, Redroot

Ragweed, Common

Ragweed, Giant

Shepherdspurse

Smartweed, Pennsylvania

Speedwell, Purselane

Sunflower

Thistle, Canadian

(above ground portion)

Velvetleaf

Whitlowgrass

Yellow-rocket

\* For adequate control of these weeds, tank mix with 2,4-D LVE.

**For Spring Burndown control, pick the appropriate rate from Rate Table 2, 3 or 4**

For burndown of larger annual grasses or broadleaf weeds exceeding 1 to 3 inches, or for burndown of weeds not listed above, this product may be tank mixed with one or more of the following:

- Assure® II
- glyphosate
- paraquat
- 2,4-D (LVE)

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.

For adjuvant and gallonage requirements for burndown applications, refer to the 'Burndown Information', 'Spray Additives', and 'Tank Mixes' sections of this label under the 'Application Information - All Uses' section.

#### CLOAK TANK MIXES WITH METRIBUZIN OR LINEX® 4L - CENTRAL REGION STATES

This product may be applied at reduced rates when tank mixed with metribuzin, metribuzin-containing products, or Linex 4L. These tank mixes will generally provide season-long preemergence weed control for the weeds listed below. When used according to the directions in the previous section for Burndown control, these tank mixes will also provide Burndown control of the weeds claimed in the previous section.

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.

Choose a reduced rate of CLOAK for use with metribuzin or LINEX 4L from Rate Table 3 below.

RATE TABLE 3 - REDUCED RATE CLOAK TANK MIXES WITH METRIBUZIN OR LINEX 4L	
SOIL TEXTURE	BROADCAST RATE PER ACRE
	CLOAK + Metribuzin or Linex 4L
0.5 to 4.0% organic matter	
<b>Coarse:</b> Loamy Sand, Sandy Loam	2.25* to 4 oz Labeled Rates
<b>Medium:</b> Loam, Silt Loam, Silt, Sandy Clay Loam or <b>Fine:</b> Silty Clay Loam, Clay Loam, Clay	2.25* to 4 oz Labeled Rates

\* 2.25 oz/acre is the maximum rate on soil with composite pH greater than 7.0.

#### SEQUENTIAL APPLICATIONS - CENTRAL REGION STATES

Reduced rates of CLOAK, from 2.25 to 7 ounces per acre, may be followed, as needed, by sequential applications of many postemergence herbicides such as, CURIO, Synchrony XP, and TREATY®. Reduced rates of CLOAK in Rate Table 4 below, will provide early-season residual control (of the weeds listed under "Weeds Controlled-Preemergence: Spring Applications") prior to the planned postemergence program.

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.

RATE TABLE 4 - SEQUENTIAL APPLICATIONS: CLOAK FOLLOWED BY POSTEMERGENCE	
CLOAK Broadcast (ounces/acre)	SEQUENTIAL APPLICATIONS FOR CURIO OR SYNCHRONY
2.25*	On soil with composite pH greater than 7.0, do not follow with any chlorimuron-ethyl containing herbicide (CURIO, Synchrony XP)
3.0 to 5.0	CURIO or Synchrony XP
6.0	CURIO, Synchrony XP
7.0	CURIO

\* 2.25 oz/acre is the maximum rate on soil with composite pH greater than 7.0.

#### ROTATIONAL GUIDELINES FOR FALL AND SPRING CLOAK APPLICATIONS - CENTRAL REGION

##### STATES Central Region

The states of Delaware, Illinois, Indiana, Iowa (fields east of State Route 63 or south of I-80), Kansas, Maryland, Michigan, Missouri (except the Bootheel), Nebraska (fields south of Route 30 and east of Route 281), New Jersey, New York (fields south of I-90), Ohio, Pennsylvania, Virginia, West Virginia and Wisconsin (fields south of I-90 between La Crosse and Madison and fields south of I-94 between Madison and Milwaukee).

When used as described in the Central Region section of this label, Rotational Guideline 1 describes the minimum length in months



from the time of CLOAK application until CLOAK treated soil can be replanted to the crops listed in the table. For Fall applications, begin counting the re-cropping interval from the normal Spring planting time for soybeans in your area.

Crop rotation intervals noted below are based on crops grown under favorable growing conditions. Crops grown under unfavorable environmental conditions, such as drought, nutrient deficiency, high salts, disease and insect pressure may demonstrate reduced tolerance to crop protection chemicals. When deciding on a particular crop to replant in your fields, carefully consider your particular soil and other field conditions.

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.

#### Rotational Guideline 1 - Central Region

For all specified Fall and Spring CLOAK uses (including sequential applications with CLOAK EX, CURIO, or Synchrony XP).

CROP	RECRIPPING INTERVAL IN MONTHS
Soybeans	anytime
Barley, Ryegrass, Wheat, Winter Rye	4
Alfalfa	10
Cotton	10
Rice	10
Tobacco (transplants)	10
Tomato (transplants)	10
Field Corn*	10
Clover	12
Dry Beans, Kidney Beans, Snap Beans, Peas	12
Sorghum	12
Cucumber, Flax, Peanuts, Pumpkin, Sunflower, Sweet Corn, Watermelon, Cabbage, Canola (rapeseed), Lentils, Mustard	18
Carrot, Onion, Potato, Sugarbeets and any other crop not listed	30

\* Field Corn is defined to include only that corn grown for grain, silage, popcorn, and seed corn. However, because seed corn inbred lines may vary in their sensitivity to trace amounts of herbicide carryover, Nufarm cannot warrant that seed corn can be re-cropped without damage or yield loss. Users should seek the advice of their seed corn company agronomists regarding inbred sensitivity to herbicides prior to planting any inbred lines.

#### SOUTHERN REGION STATES - Specific Use Directions

Spring applications of this product may be applied at planting or up to 45 days before planting.

Giving careful consideration to soil type, soil pH, organic matter, rotational crop intervals, geographic location, and weed pressure, select a rate of CLOAK from Rate Table 5. Apply CLOAK Early Pre-plant, Pre-plant Incorporated or Preemergence as directed in the 'Application Information - All Uses' section of this label.

RATE TABLE 5 - EARLY PRE-PLANT, PRE-PLANT BURNDOWN, PRE-PLANT INCORPORATED AND PREEMERGENCE		
SOIL TEXTURE	BROADCAST RATE OUNCES PER ACRE	
	Percentage of organic matter in soil	
	0.5 to 3.0 %	3.0 to 5.0%
<b>Coarse:</b> Loamy Sand, Sandy Loam	6 ounces/A	8 ounces/A
<b>Medium:</b> Loam, Silt Loam*, Silt, Sandy Clay Loam	8 ounces/A	10 ounces/A
<b>Fine:</b> Silty Clay Loam, Clay Loam, Clay	10 ounces/A	12 ounces/A

\* On silt loam soils in TN and KY use 6 to 8 ounces/A

### FOR SEASON-LONG GRASS CONTROL - SOUTHERN REGION STATES

This product may not provide season-long preemergence control of grasses. For improved grass control, this product may be:

- Followed as needed by a postemergence grass herbicide such as Assure II herbicide, or, in glyphosate tolerant soybeans, this product may be followed with an in-season glyphosate application.
- Tank mixed with such herbicides as alachlor, metolachlor and pendimethalin.
- 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.

### USE IN STALE SEEDBED OR CONSERVATION TILLAGE - SOUTHERN REGION STATES

For Burndown control of small annual grasses and broadleaf weeds, use 3 to 4 ounces of this product and apply up to 45 days prior to planting. Select the higher labeled rate for larger weeds. For burndown weeds controlled, see the "Pre-plant Burndown - Central Region States" section in this label. When burndown plus residual control is desired, this product may be applied at planting or up to 45 days prior to planting at a rate of 4 to 12 ounces. Select a rate, based on soil type from either Rate Table 5 or Rate Table 6.

For burndown of weeds and grasses not listed above, or for burndown of larger weeds and grasses, it is recommended that CLOAK be tank mixed with such herbicides as 2,4-D LVE, raquat, and/or glyphosate.

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.

For adjuvant and gallonage requirements for burndown applications, refer to the 'Burndown Information', 'Spray Additives', and 'Tank Mixes' sections of this label under the 'Application Information - All Uses' section.

### SEQUENTIAL APPLICATIONS - SOUTHERN REGION STATES

This product may be applied at reduced rates when followed by one planned postemergence treatment of either Synchrony XP, CURIO, or CURIO + TREATY herbicides, or by other herbicides registered for soybeans.

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.

Select a rate of CLOAK, according to soil type, from Rate Table 6.

RATE TABLE 6 - SEQUENTIAL APPLICATIONS – CLOAK FOLLOWED BY POSTEMERGENCE	
SOIL TEXTURE	BROADCAST RATE OUNCES PER ACRE
0.5 to 4.0% organic matter	
<b>Any*</b>	3.0 to 3.5 ounces/A
<b>Coarse:</b> Loamy Sand, Sandy Loam	4.0 to 5.0 ounces/A
<b>Medium:</b> Loam, Silt Loam, Silt, Sandy Clay Loam	4.0 to 6.0 ounces/A
<b>Fine:</b> Silty Clay Loam, Clay Loam, Clay	6.0 to 8.0 ounces/A

\* 3.5 ounces per acre is the maximum rate that may be used on soils with a composite pH greater than 7.0. When re-cropping to rice and using 3.0 to 3.5 ounces per acre on soils with pH greater than 7.0, the recrop interval is 18 months.

### ROTATIONAL GUIDELINES FOR FALL AND SPRING CLOAK APPLICATIONS - SOUTHERN REGION STATES

#### Southern Region

The states of Alabama (except the "Black Belt" where soil pH must be less than 7.0), Arkansas, Florida, Georgia, Kentucky, Louisiana, Missouri (Bootheel region only), Mississippi (except the "Black Belt" where soil pH must be less than 7.0), North Carolina, Oklahoma, South Carolina, Tennessee and Texas (fields east of Route 183).

When used as described in the Southern section of this label, the table describes the minimum length in months from the time of CLOAK application before CLOAK treated soil can be replanted to the crops listed in the table. For Fall applications, begin counting the re-cropping interval from the normal Spring planting time for soybeans in your area.

Crop rotation intervals noted below are based on crops grown under favorable growing conditions. Crops grown under unfavorable environmental conditions, such as drought, nutrient deficiency, high salts, disease and insect pressure may demonstrate reduced tolerance to crop protection chemicals. When deciding on a particular crop to replant in your fields, carefully consider your particular soil and other field conditions.

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.

#### Rotational Guideline 2 - Southern Region

**For all labeled Fall and Spring CLOAK uses**

**GROUP I - composite soil pH greater than 7.0, maximum 3.5 ounces per acre CLOAK, no postemergence CURIO or Synchrony XP.**

- All southern states.

**GROUP I - soil pH 7.0 or less.**

- States of AL, AR, FL, GA, LA, MS or TX.
- States of KY, MO Bootheel, NC, OK, SC, TN - Use rate less than 10 oz./A

**GROUP II - soil pH greater than 7.0 and CLOAK rate greater than 3.5 ounces per acre.**

- All southern states.

CROP	GROUP I	GROUP II
Soybeans	anytime	anytime
Barley, Ryegrass, Wheat, Winter Rye	4	4
Alfalfa	10	18
Clover	12	18
Field Corn*	9/10†	18
Cotton	10	18
Peanuts	8	18
Rice §	10	18
Sorghum	10	18
Tobacco (transplants)	10	18
Tomato (transplants)	10	18
Cucumber, Flax, Pumpkin, Sunflower, Sweet Corn, Watermelon, Cabbage, Canola (rapeseed), Lentils, Mustard Carrot, Onion, Potato, Sugarbeets and any other crop not listed	18	30

\* Field Corn is defined to include only that corn grown for grain, silage, popcorn, and seed corn. However, because seed corn inbred lines may vary in their sensitivity to trace amounts of herbicide carryover, Nufarm cannot warrant that seed corn can be re-cropped without damage or yield loss. Users should seek the advice of their seed corn company agronomists regarding inbred sensitivity to herbicides prior to planting any inbred lines.

† May be recropped to field corn after 9 months if the CLOAK rate does not exceed 6 ounces per acre.

## STORAGE AND DISPOSAL

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

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

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

**CONTAINER DISPOSAL:**

**For Plastic Containers:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. 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 half 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 flow begins to drip. Repeat this procedure two more times.

**For Fiber Sacks:** Nonrefillable container. Do not reuse or refill this container. Completely empty sack by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of sack in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**For Fiber Drums with Liners:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into manufacturing or application equipment. Then offer for recycling, if available, or dispose of liner in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**For Paper and Plastic Bags:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling, if available, or dispose of empty bag in a sanitary landfill or by incineration,

or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency contact CHEMTREC 1-800-424-9300.

#### **WARRANTY DISCLAIMER**

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#### **[Optional Marketing Claims:]**

[Nufarm Grow a better tomorrow.]

[Grow a better tomorrow.]

#### **[NOTES TO REVIEWER:]**

[Note to reviewer: Any text found in brackets "[ " "]" is optional on container label.]

[State restrictions will not be found on the container label if the product is not registered in that associated state.]

[Making the product more restrictive than Federally accepted by incorporating the optional statement "Not for use in California." may be undertaken on the container label for any use, weed or crop as determined to be necessary to procure CADPR registration.]