

71368-83

11/9/2011

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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

NOV - 9 2011

Matthew Granahan  
Nufarm Americas Inc.  
150 Harvester Drive, Suite 200  
Burr Ridge, IL 60527

Subject: Notification per PR Notice 2007-4: Update Container Disposal Instructions  
Cloak Herbicide  
EPA Reg. No. 71368-83  
Application Dated: November 9, 2011

Dear Mr. Granahan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 2007-4 for the subject product.

The Registration Division (RD) has conducted a review of this request for applicability under PRN 2007-4 and finds that the label changes requested fall within the scope of PRN-2007-4. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions regarding this letter, please feel free to contact Maggie Rudick at (703) 347-0257 or [rudick.maggie@epa.gov](mailto:rudick.maggie@epa.gov).

Sincerely,

Kable Bo Davis, Product Manager 25  
Herbicide Branch  
Registration Division (7505P)



Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060

	United States <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number
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**Application for Pesticide - Section I**

1. Company/Product Number 71368-83	2. EPA Product Manager Bo Davis	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Cloak Herbicide	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) Nufarm Inc. 150 Harvester Drive, Suite 200 Burr Ridge, IL 60527  <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**NOTIFICATION**  
**NOV - 9 2011**

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of label change per PR Notice 2007-4 and PR Notice 1998-10. This notification is consistent with the guidance in PR Notice 2007-4 and PR Notice 1998-10 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, 156.156 and 152.46. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if the amended label is not consistent with the requirements of PR Notice 1998-10 and 40 CFR §§ 156.10, 156.140, 156.144, 156.146, 156.156 and 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt.    No. per container	If "Yes" Package wgt    No. per container	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container 80 oz., 6 x 80 oz., 8 x 80 oz.		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input checked="" type="checkbox"/> Other (Self-Adhesive Intergrated Label/Booklet)	

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Matthew Granahan matthew.granahan@us.nufarm.com	Title Regulatory Manager	Telephone No. (Include Area Code) (630) 455-2048
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received  <b>(Stamped)</b>
2. Signature 		
3. Title Regulatory Manager		
4. Typed Name Matthew Granahan		5. Date 11/09/2011



**Fw: 71368-83 Notification pending from March 3, 2011**  
Kable Davis to: Maggie Rudick

11/09/2011 02:23 PM

----- Forwarded by Kable Davis/DC/USEPA/US on 11/09/2011 02:22 PM -----

From: matthew.granahan@us.nufarm.com  
To: Kable Davis/DC/USEPA/US@EPA  
Date: 11/09/2011 02:19 PM  
Subject: Fw: 71368-83 Notification pending from March 3, 2011

Bo,

As per communication please find attached.

Regards,

Matt



Matthew Granahan  
Regulatory Manager  
Nufarm Americas Inc.  
150 Harvester Drive, Suite 200  
Burr Ridge, IL 60527  
Phone: 630.455.2000 (main)  
Phone: 630.455.2048 (direct)  
Phone: 847.814.2525 (cell)  
Fax: 630.455.2030 (regulatory dept.)  
Email: matthew.granahan@us.nufarm.com

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Nufarm Americas Inc. and its affiliated companies. Fax: +1.630.455.2001.

----- Forwarded by Matthew Granahan/US/Nufarm on 11/09/2011 01:11 PM -----

From: Matthew Granahan/US/Nufarm  
To: davis.kable@epa.gov  
Date: 11/09/2011 01:01 PM  
Subject: 71368-83 Notification pending from March 3, 2011

4/20

# CLOAK® HERBICIDE

NOTIFICATION  
NOV - 9 2011

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%
<b>OTHER INGREDIENTS:</b> .....	<u>25.0%</u>
<b>TOTAL:</b> .....	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 INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS**

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 71368-83  
EPA EST. NO.

Manufactured For  
NUFARM INC.  
150 Harvester Drive  
Burr Ridge, IL 60527



NET CONTENTS

071368-00083.20110303.EPA Not 98-10 & 07-04  
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)**

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

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves made of any waterproof material such as 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.

<b>USER SAFETY RECOMMENDATIONS</b>	
<b>Users Should:</b>	
<ul style="list-style-type: none"> <li>• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.</li> <li>• 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.</li> <li>• 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.</li> </ul>	
<b>FIRST AID</b>	
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.</p>	

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate. Do not apply where or when conditions favor runoff.

**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 such as polyethylene or polyvinyl chloride, shoes plus socks, and protective eyewear.

**FOR USE ON SOYBEANS ONLY**

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

Do not graze treated fields or harvest for forage or hay.

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.

**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.

**GENERAL 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.

### IMPORTANT PRECAUTIONS

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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, or injury to desirable trees and plants may occur.
7. 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.
8. 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.
9. 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, as severe crop injury may occur. Injury to soybeans may occur if this product is used in conjunction with soil-applied organophosphate pesticides such as Di-Syston®, Mocap®, Namacur®, Thimet®, parathion, or Lorsban™.

### 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.

### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence spray drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 to 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species near by, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

#### Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

#### Controlling Droplet Size - Aircraft

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage. **SPRAY DRIFT MANAGEMENT SPRAYER PREPARATION AND CLEANUP**
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 feet above the canopy increases the potential for spray drift.

#### BOOM HEIGHT(Ground)

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SENSITIVE AREAS

This product may only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from sensitive areas).

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. **Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

### RESISTANCE MANAGEMENT

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

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

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

### INTEGRATED PEST MANAGEMENT

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

### 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. For tank mixtures with other herbicides, follow directions above. For tank mixtures with other herbicides, all applicable directions, restrictions and precautions for the additional herbicides are also to be followed.

Use CLOAK® spray preparations the same day as mixed or product degradation may occur. Thoroughly reagitrate and remix before using, if allowed to settle. When tank mixing with other herbicides, all applicable directions, restrictions and precautions for the additional herbicides are also to be followed.

**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**

**GEOGRAPHIC USE REGIONS**

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 per acre of this product.
- In the states of Michigan, New York, and Wisconsin, do not use the 2.25 ounces 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 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. Use of this product at rates exceeding 2.25 ounces per acre on soils which exceed composite pH 7.0 may result in unacceptable injury to the following crop.

**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 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.
- Injury to soybeans may occur if this product is used on soils having a calcareous surface layer or pH greater than 7.5.

**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™. See Rate Tables 4 and 6 for recommended sequential rates for this product.
- 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 per acre chlorimuron ethyl in the Central Region States or 1.07 ounces ai per acre chlorimuron ethyl in the Southern Region States in any one soybean growing cycle.

11/20

**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 or severe injury or death of the crop will occur.
- 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**

Other than the exceptions noted, and in addition to the tank mix partners and rates indicated in this label, this product may be tank mixed or followed with sequential applications of other products registered for use in soybeans. This product may be applied in tank mix combinations with full or reduced rates of other products provided:

- The tank mix product is labeled for the same timing, method of application, adjuvants, and use restrictions as this product.
- The tank mix is not specifically prohibited on the label of the tank mix product.
- 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.
- The tank mix combination is compatible as determined by a "jar test" described in the TANK MIX COMPATIBILITY TESTING section below.

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.

To select the proper tank mix product, identify the weeds which need to be controlled and consult the product labels to determine which product is needed. Consult the companion tank mix herbicide label for use instructions, rates, precautions, restrictions, and other use information. For CLOAK® tank mixes with glyphosate substitute 0.25% NIS for the 1% COC.

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. It has a minimum pre-plant interval of 7 to 30 days based on the rate used. Consult the label of the product used for specific information on this interval.

**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.

### 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 *
In Medium and Fine Soils - 1.5 to 4.0% organic matter		
<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.

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

\* Addition of 8 ounces per acre 2,4-D LVE is required for all CLOAK® rates.

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 0.1 to 0.33 ounces VICTORY® herbicide to CLOAK® for control of up to 6 inch common chickweed. For heavy matted infestations, use the higher end of the rate range. For lighter infestations of non-matted chickweed, use the lower end of the rate range. For other weeds VICTORY® controls, see the VICTORY® label. VICTORY® must be added at least 45 days prior to soybean planting.

• 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, Whitlowgrass, 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.

In addition to the weeds noted in the lists above, this product has activity on a range of other weeds. Consult fact sheets, technical bulletins, and service policies for information on other weeds controlled.

**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)	Velvetleaf
Mustard, Wild		Purslane, Common	

\* 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)	Chickweed, Common
Burcucumber	Johnsongrass (seedling)
	Mexicanweed
	Nutsedge, (Purple, Yellow)

14/20

**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.

<b>RATETABLE 2 - EARLY PRE-PLANT, PRE-PLANT BURNDOWN, PRE-PLANT INCORPORATED AND PREEMERGENCE</b>	
<b>SOIL TEXTURE</b>	<b>BROADCAST RATE OUNCES PER ACRE</b>
<b>0.5 to 4.0% organic matter</b>	
<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.

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

\* Addition of 8 ounces per acre 2,4-D LVE is required for all CLOAK® rates.

**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)

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.

15/20

**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.

Reduced rates of CLOAK® tank mixed with metribuzin, metribuzin-containing products, or Linex® 4L will generally provide season-long preemergence control of the following weeds:

- |               |                |                         |
|---------------|----------------|-------------------------|
| Ladysthumb    | Pigweeds       | Ragweed, Common         |
| Lambsquarters | Palmer         | Smartweed, Pennsylvania |
| Mustard, Wild | Redroot        | Velvetleaf              |
|               | Smooth         |                         |
|               | Spiny amaranth |                         |

CLOAK® + metribuzin or Linex® 4L tank mixes will provide control (suppression) preemergence of the following weeds:

- |                           |                |            |
|---------------------------|----------------|------------|
| Cocklebur                 | Morningglories | Waterhemp† |
| Crabgrass                 | Entireleaf     |            |
| Eastern black nightshade† | Ivyleaf        |            |
| Foxtail species           | Pitted         |            |
| Jimsonweed                | Tall           |            |

† partially controlled when tank mixed with a minimum of 1 pint of LINEX® 4L

Choose a reduced rate of CLOAK® and a rate of 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	1.5 to 3.0 oz ai	1.0 to 1.5 pt
<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	3.0 to 4.5 oz ai	1.0 to 2.0 pt

\* 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.

RATE TABLE 4 - SEQUENTIAL APPLICATIONS: CLOAK® FOLLOWED BY POSTEMERGENCE	
CLOAK® Broadcast (ounces/acre)	SEQUENTIAL RATE LIMITS FOR CURIO® OR SYNCHRONY® OUNCES PER ACRE
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 up to 0.75 ounces
6.0	CURIO® up to 0.66 ounces, Synchrony® XP up to 0.75 ounces
7.0	CURIO® up to 0.25 ounces

\* 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. When a recommended tank mix is used, consult the tank mix partner labels for recropping instructions and follow the directions that are most restrictive.

**Rotational Guideline 1 - Central Region**

**For all recommended Fall and Spring CLOAK® uses (including sequentials with CLOAK® EX, CURIO®, or Synchrony® XP).**

CROP	RECROPPING 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.

RATETABLE 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.

**USE IN STALE SEEDBED OR CONSERVATIONTILLAGE - 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 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, paraquat, and/or glyphosate.

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

RATETABLE 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.

**When a recommended tank mix is used, consult the tank mix partner labels for recropping instructions and follow the directions that are most restrictive.**

**Rotational Guideline 2 - Southern Region**

**For all recommended Fall and Spring CLOAK® uses (including sequentials with CLOAK® EX, CURIO®, or Synchrony® XP).**

**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.

§ The recrop to rice is 18 months after 3 to 3.5 ounces per acre is used on soils with a composite pH greater than 7.0.

19/20

### 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 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 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

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

(RV030311)

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20/20

**LABEL HISTORY**

<b>FILE NAME</b>	<b>RV DATE</b>	<b>Comments</b>
Cloak Herbicide (71368-83) EPA RV010509	RV010509	
071368-00083.20110303.EPA Not 98-10 & 07-04	RV030311	PRN 07-04 & 98-10