

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Jennifer DeCarlo Cheminova Inc. 1600 Wilson Blvd. Suite 700 Arlington, VA 22209

NOV 2 22010

Dear Ms. DeCarlo:

Subject:

**Revised Labeling** 

Rhythm Herbicide

EPA Registration No. 67760-94

Your Submission dated August 20, 2010

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

- 1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
  - a. Delete the term "General" in headings on the labeling. This term implies that the directions and restrictions do not all have to be followed as specified on the label. We have no objection to the phrases "Product Information" and "Product Precautions and Restrictions".
  - b. In the Special Use Directions section, modify the lowest rates to 0.75 pts/A to correspond to the rate specified for Region 5 and add a restriction to refer to the directions for use for the maximum use rate for each Region specified in the Regional Use Maps.
  - c. Add to the Special Use Directions and the Tank Mix and Sequential Applications sections the restriction that application of Rhythm Herbicide in Regions 2, 3, 4 and 5 is limited to alternate years only.
- 2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

A stamped copy of the labeling is enclosed for your records.

If you have any questions concerning this letter, please contact Mr. James Stone at 703-305-7391.

Sincerely yours,

Kathryn V. Montague Product Manager 23
Herbicide Branch
Registration Division (7505P)

Enclosure

ACCEPTED with COMMENTS In EPA Letter Dated:

Under the Federal ! dide, Fungicide, and Rode mode Act as amended, for the pesticide registered under EPA Reg. No.

67760-94

### Rhythm® Herbicide

For Control of Weeds in Soybeans Active Ingredient:

#### **ACTIVE INGREDIENT:**

# 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.)

## IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT 1-866-303-6950

Read the entire label before using this product.

Use only according to label instructions.

Read the WARRANTY DISCLAIMER, INHERENT RISKS OF USE, and LIMITATION OF REMEDIES before buying or using.

If terms are not acceptable, return product unopened without delay.

SEE LABEL BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS AND USE DIRECTIONS.

EPA Reg. No. 67760-94

EPA Est. Nocce

#### **Net Contents:**

Cheminova, Inc.
P.O. Box 110566
One Park Drive, Suite 150
Research Triangle Park, NC 27709
www.cheminova.us.com

<sup>\*</sup>Equivalent to 21.0% formesafen or 1.88 lbs. formesafen active ingredient per gallon.

FIRST AID				
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>			
	Do not give anything by mouth to an unconscious person .			
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>			
	Move person to fresh air.			
If inhaled	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.			
	Call a poison control center or doctor for further treatment advice.			
Note to Physician: Pr	obable mucosal damage may contraindicate the use of gastric lavage.			
Have the product cont	ainer or label with you when calling a poison control center or doctor or going			

Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of a medical emergency involving this product, call toll free, day or night, 1-866-303-6950.

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

This product contains fomesafen, which has been determined to cause tumors in laboratory animals (mice). Risks can be reduced by closely following use directions and precautions and by wearing the protective clothing specified elsewhere on this label.

Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield, or safety glasses). Wear: Long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling.

#### **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 E on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants.
- Chemical-resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber, or viton.
- Chemical-resistant footwear plus socks.
- · Chemical-resistant apron when cleaning equipment, mixing, or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. 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.

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

#### **USER SAFETY RECOMMENDATIONS**

#### **Users Should:**

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- Remove and wash contaminated clothing before reuse.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment wash waters. DO NOT apply when weather conditions favor drift from target area.

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

#### **DIRECTIONS FOR USE**

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

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

#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of **24 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 over short-sleeved shirt and short pants.
- Chemical-resistant gloves such as barrier laminate, nitrile rubber, neoprene rubber, or viton.
- Chemical-resistant footwear plus socks.

#### **GENERAL INFORMATION**

Read all label directions before using.

**Rhythm® Herbicide** is a herbicide that may be applied preplant, preemergence in Regions 1, 2, 3, and 4 and/or postemergence in all regions for control and suppression of broadleaf weeds, grasses, and sedges in soybeans. Soybean plants are tolerant to **Rhythm Herbicide** when applied according to labeled rates and uses.

**Rhythm Herbicide** is generally most effective and consistent when used postemergence, working through contact action. Therefore, emerged weeds must be thoroughly covered with spray. Some bronzing, crinkling, or spotting of soybean leaves may occur following postemergence applications, but soybeans soon outgrow these effects and develop normally. Optimum broad-spectrum weed control is achieved by postemergence applications of **Rhythm Herbicide** to young actively growing broadleaf weeds that are not under stress from moisture, temperature, and low soil fertility, mechanical or chemical injury.

Certain germinating broadleaf and grass weeds and sedges may be controlled or suppressed by soil residual activity from either preplant, preemergence or postemergence applications if rainfall occurs shortly after application. The extent and consistency of soil activity is dependent upon soil type, ground cover at time of application, amount of rainfall and the rate of **Rhythm Herbicide** used.

#### **APPLICATION DIRECTIONS**

#### TIMING:

Best broad-spectrum postemergence control of susceptible broadleaf weeds is obtained when **Rhythm Herbicide** is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting. Refer to the weed tables for specific recommendations on weed growth stages, rates, and regions.

#### **SPRAY ADDITIVES:**

Only spray additives cleared for use on growing crops under 40 CFR 180.1001 may be used in spray mixture.

For best broad-spectrum postemergence control of susceptible broadleaf weeds in Regions 2, 3, 4 and 5 (see Regional Use Maps), **Rhythm Herbicide** should be used with 1.0-2.5% v/v liquid nitrogen (28% or similar) or a minimum of 8.5 lbs. ammonium sulfate per 100 gals. of spray volume.

For Postemergence Applications Always Add One of the Following: except in tank mix with products prohibiting spray additives - (See Tank Mix Directions for Use).

#### **CROP OIL CONCENTRATE (COC):**

Use a nonphytotoxic COC or a once-refined vegetable oil concentrate (VOC, MSO) containing 15-20% approved emulsifier at 0.5-1 % (1-2 pts. per 25 gals.) of finished spray volume. COC can improve weed control but may slightly reduce crop tolerance.

#### **NONIONIC SURFACTANT (NIS):**

Use NIS containing at least 75% surface active agent at 0.25-0.5% (1/2-1 pt. per 25 gals.) of the finished spray volume (Region 1 and East of Interstates 79 and 77 for Regions 2 and 3).

#### **OTHER ADJUVANTS:**

Adjuvants other than COC or NIS may be used providing the product meets the following criteria:

- 1. Contains only EPA exempt ingredients.
- 2. Is nonphytotoxic to the target crop.
- 3. Is compatible in mixture. (May be established through a jar test.)
- 4. Is supported locally for use with **Rhythm Herbicide** on the target crop through proven field trials and through university and extension recommendations.

**NOTE:** No adjuvants are needed for preplant or preemergence applications unless **Rhythm Herbicide** is being used in a burndown.

Recommended Mixing Order:

- Half required amount of water, begin agitation. \*
- 2. Dry pesticide formulations.
- 3. Rhythm Herbicide.
- 4. Liquid pesticide formulation. \*\*
- 5. Adjuvant (MSO, COC or NIS) and fertilizer.

\*Compatibility agent, 1 gal./500 gals. of water or 0.2% v/v, may be added as needed.

\*\*Tank mixing with glyphosate formulations containing more than 4 pounds glyphosate active ingredient per gallon may result in precipitate forming. If precipitate forms in spray tank, add ammonia (household) to the spray tank at a concentration of 2% of the total tank volume to remove precipitate.

#### **GROUND APPLICATION:**

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum spray volume of 15 gals./A and 30-60 psi at the nozzle tip is recommended. On large weeds and/or dense foliage, use 60 psi and a minimum of 20 gals./A to ensure coverage of weed foliage.

Use only hollow cone or flat fan nozzles. The sprayer must be calibrated to provide the proper volume and rate per acre. In addition, the boom and nozzle height must be adjusted to provide complete coverage of the target.

**DO NOT** USE FLOOD TYPE OR OTHER SPRAY NOZZLES, WHICH DELIVER COARSE, LARGE-DROPLET SPRAYS.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

#### **BAND APPLICATIONS:**

Thorough weed coverage is important for postemergence control. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended for postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making postemergence band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept spray, reducing weed coverage and resulting in less than adequate weed control. Calculate the amount of herbicide and water volume needed for postemergence band treatment by the following formulas:

Band width in inches Row width in inches	Х	broadcast rate per acre	=	Band herbicide rate per acre
Band width in inches Row width in inches	X	broadcast volume per acre	=	Band water rate per acre

#### **AERIAL APPLICATION:**

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum of 5 gals./A of spray mixture should be applied with a maximum of 40 PSI pressure. When broadleaf weed foliage is dense, use a minimum of 10 gals./A to ensure coverage of weed foliage.

#### **CULTIVATION:**

Cultivation prior to application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying Rhythm Herbicide may assist weed control.

#### **GENERAL USE PRECAUTIONS**

- A maximum of 1.6 pts. of Rhythm Herbicide (or a maximum of 0.375 lbs. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre per year in Region 1 (see Regional Use Map).
- A maximum of 1.6 pts. of **Rhythm Herbicide** (or a maximum of 0.375 lbs. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 2 (see Regional Use Map).

- A maximum of 1.3 pts. of **Rhythm Herbicide** (or a maximum of 0.313 lbs. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 3 (see Regional Use Map).
- A maximum of 1 pt. of Rhythm Herbicide (or a maximum of 0.25lbs. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 4 (see Regional Use Map).
- A maximum of 0.75 pt. of Rhythm Herbicide (or a maximum of 0.1875 lbs. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 5 (see Regional Use Map).
- To avoid possible illegal residues, do not apply within 45 days of harvest.
- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.
- Tank mixes of Rhythm Herbicide with other pesticides, fertilizers or any other additives
  except as specified on this label or other approved Cheminova supplemental labels may
  result in tank mix incompatibility, unsatisfactory performance, and/or unsatisfactory crop
  injury.
- Rhythm Herbicide requires a 1-hour rain-free period for best results when applied postemergence.
- Apply postemergence to actively growing weeds. Avoid applying Rhythm Herbicide to
  weeds or soybeans that are under stress from moisture, temperature, low soil fertility, or
  mechanical or chemical injury, as reduced weed control and/or increased crop injury may
  result.
- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- To provide adequate coverage, it is recommended that ground speed not exceed 10 MPH during application.
- Do not graze treated areas or harvest for forage or hay.

#### **ROTATIONAL CROP RESTRICTIONS**

Crop To Be Planted	Minimum Rotation Interval (Months After Last Rhythm Herbicide Application)
Dry beans, snap beans, soybeans and cotton	0
Small grains such as wheat, barley, rye	4
Corn*	8
Peanuts, peas, rice, seed corn	10
To avoid crop injury do not plant alfalfa, sunflowers, sugar beets, sorghum** or any other crop within:	18

Do not graze rotated small grain crops or harvest forage or straw for livestock. In the event of a crop loss due to weather conditions soybeans can be replanted.

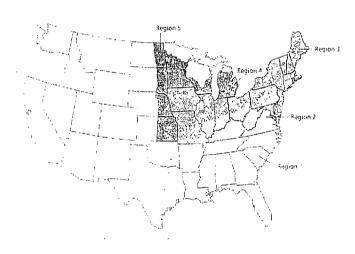
\*\* Sorghum may be planted back after 10 months in Region 1.

<sup>\*</sup> Use 12 month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa and Region 4 when applied at a rate of 1.0 pt./A or more.

<sup>\*</sup> Use 18 month minimum rotation interval for sweet corn in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and Region 5.

## RHYTHM HERBICIDE IN SOYBEANS - USE RATES AND WEEDS CONTROLLED

## REFER TO MAP FOR DEFINITION OF SPECIFIED GEOGRAPHIC REGIONS RHYTHM HERBICIDE REGIONAL USE MAP



### REGION 1 (Maximum Rate 1.6 pts./A per year)

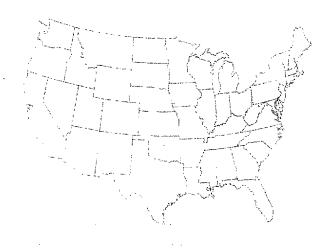
**REGION 1:** Includes the following states or portion of states where Rhythm Herbicide may be applied: Alabama, Arkansas, Georgia, Louisiana, Mississippi, Missouri (Counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard, and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee, and Texas (all areas East of U.S. Highway 77 to State Road 239, including all of Calhoun County).



#### **REGION 2**

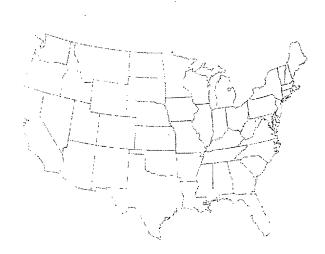
#### (Maximum Rate 1.6 pts./A, alternate years)

**REGION 2:** Includes the following states or portion of states where Rhythm Herbicide may be applied: Delaware, Kentucky, Maryland, Virginia and West Virginia. South of Interstate 70 in the following states: Illinois, Indiana and Ohio and in Pennsylvania (all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522).



### REGION 3 (Maximum Rate 1.3 pts./A, alternate years)

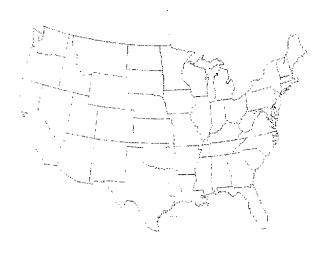
**REGION 3:** Includes the following states or portion of states where Rhythm Herbicide may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1). New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, Vermont, Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee) and North of Interstate 70 in the following states: Illinois, Indiana and Ohio.



#### **REGION 4**

#### (Maximum Rate 1 pt./ A, alternate years)

REGION 4: Includes the following states or portion of states where Rhythm Herbicide may be applied: Kansas (all counties East of or intersected by U.S.. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties East of or intersected by U.S. Highway 281), and Wisconsin (all areas except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Door and Kewaunee counties). The following counties are excluded: Clark, Marathon, Wood, Portage, Adams, Shawano, Waupaca, Waushara, and Marquette). North Dakota (all areas East of Interstate 29 from Fargo South to the South Dakota state line), South Dakota (all areas East of Interstate 29 from the North Dakota state line to Watertown, all areas East of Highway 81 from Watertown to Madison and all areas East and South of State Road 34 and U.S. Highway 281 to the Nebraska state line).



### REGION 5 (Maximum Rate 0.75 pts./A, alternate years)

**REGION 5:** Includes the following states or portion of states where Rhythm Herbicide may be applied: North Dakota (all areas East of U.S. Highway 281 except those areas in Region 4), South Dakota (all areas East of U.S. Highway 281 except those areas in Region 4) and Minnesota (all areas South of U.S. Highway 2 except those areas in Region 4).



	Rhythm Herbicide Rate (pts./A) Maximum Growth Stage Controlled At				
	3/4 pts./A # of True	1pt./A # of True	1.25 pts./A # of True	1.5 pts./A # of True	
Weed	Leaves	Leaves	Leaves	Leaves	
Anoda, Spurred	-	2*	2	4	
Balloonvine	-	-	2	4	
Carpetweed	-	8" Diameter Size	Unlimited Size	Unlimited Size	
Citron (Wild Watermelon)	-	2	4	4 -	
Cocklebur, Common	2	4	6	8	
Copperleaf, Hophornbeam	-	4	4	6	
Copperleaf, Virginia	-	4	4	6	
Crotalaria, Showy		6	6	8	
Croton, Tropic	-	4	. 4	6	
Cucumber, Volunteer	-	4	6	8	
Eclipta		2	4	4	
Groundcherry, Cutleaf	-	4	6	8	
Hemp	-	4	6	6	
Horsenettle	-	2*	4*	4*	
Jimsonweed	4	6	8	8	
Ladysthumb	2*	2	4	6	
Lambsquarters, Common	2*	2*	2*	2*	
Mexicanweed		. 2*	2	4	
Morningglory					
Cypressvine	2	4	6	6	
Entireleaf var.	3*	3	4	5	
lvyleaf	3*	3	4	5	
Purple Moonflower	3*	3	5	6	
Red (Scarlet)	3*	3	6	6	
Smallflower	3*	3	4	6	
Pitted (Smallwhite)	4*	4	6	6	
Tall (Common)	2*	2	3	5	
Palmleaf (Willowleaf)	3*	3	6	6	
Mustard, Wild	4	6	8	8	
Nightshade, Black	2	4	6	6	
Nutsedge, Yellow		_	*	*	

	Rhythm Herbicide Rate (pts./A) Maximum Growth Stage Controlled At			
Weed	3/4 pts./A # of True Leaves	1pt./A # of True Leaves	1.25 pts./A # of True Leaves	1.5 pts./A # of True Leaves
Pigweed, spp.		-		
Amaranth, Palmer	2	2	2	2
Amaranth, Spiny	2	2	2	2
Redroot	2	4	4	4
Smooth	2	4	4	4
Waterhemp, Common	2*	2	2	2
Waterhemp, Tall	2*	2	2	2
Poinsettia, Wild	-	2	4	6
Pursiane, Common	-	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	-	2	2	4
Ragweed, Common	4*	4	6	8
Ragweed, Giant	4*	4	6	8
Redweed	-	-	2*	3*
Sesbania, Hemp	-	8	12	12
Sicklepod	-	-	Cotyledon*	Cotyledon*
Sida, Prickly	_	2*	2	4
Smartweed, Pennsylvania	4*	4	6	6
Smell melon	- "	2	2	4
Spurge, Prostrate	-	-	1" Diameter*	2" Diameter*
Spurge, Spotted	-	-	2*	2*
Starbur, Bristly	-	4	4	6
Sunflower, Common		-	2	4
Velvetleaf	-	2	4	4
Venice Mallow	4	6	6	8
Witchweed	-	Multi-leaf Up to 7"	Multi-leaf Up to 10"	Multi-leaf Up to 10"
Yellow Rocket	4	4	6	8
		<del></del>		

<sup>\*</sup> Suppression only

#### SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

Suppression of Annual Grass Weeds:

The grass weeds listed below may be suppressed by postemergence applications and controlled or suppressed by preemergence applications of **Rhythm Herbicide** at 1-1.5 pts./A. Consult Use Rate Table for maximum rate in each region. For full-season broad-spectrum annual grass control, Fusilade® OX or Fusion® herbicide should be used alone or in tank mix with **Rhythm Herbicide**. Consult tank mix section.

Barnyardgrass
Broadleaf Signalgrass
Crabgrass
Foxtail
Giant
Green
Yellow
Goosegrass
Johnsongrass, Seedling
Panicum, Fall
Panicum, Texas

Suppression of Perennial Weeds:

Use of **Rhythm Herbicide** at postemergence rates of 1-1.5 pts./A will aid in suppressing the above-ground portions of the weeds listed below until crop canopy can assist in suppression. Perennial weeds continue to regrow from underground rootstocks even if above-ground foliage is temporarily controlled or retarded. Even though **Rhythm Herbicide** and crop competition can suppress perennial weeds for a growing season, the rootstocks will continue to live and reestablishment will occur in subsequent years.

Milkweed, Climbing Milkweed, Honeyvine Bindweed, Field Bindweed, Hedge Trumpetcreeper

#### TANK MIX AND SEQUENTIAL APPLICATIONS FOR SOYBEANS

Rhythm Herbicide can be used sequentially or in tank mix with one or more of the following products: Assure II®, Basagran®, Butyrac®, Classic®, FirstRate®, Fusilade® OX, Fusion®, Glyphosate (such as Glyfos® X-TRA, Roundup®, Touchdown®), Gramoxone® MAX, Harass®, Harmony® GT, Harmony® GT XP, Ignite®, Poast®, Poast Plus®, Pursuit®, Raptor®, Resource®, Scepter®, Select®, and Synchrony® STS®.

Under certain conditions, the mixture of **Rhythm Herbicide** with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

For sequential applications allow 2-3 days after the application of the grass herbicide before applying **Rhythm Herbicide** or **Rhythm Herbicide** mixtures. Where **Rhythm Herbicide** or the **Rhythm Herbicide** mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

- Tank mix applications can result in increased crop injury as compared to either product used alone.
- Do not exceed 1 fl. oz. of Butyrac per acre in mixture with Rhythm Herbicide.
- Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of **Rhythm Herbicide** on non-STS varieties. This tank mix can be applied postemergence to any soybean

- variety for additional broadleaf weed control. Refer to the Synchrony STS label for more information and crop rotation restrictions.
- Always read and follow the recommendations, restrictions and limitations for all products whether used alone, sequentially, or in a tank mix. The most restrictive labeling of any product used applies.

#### **ROUNDUP READY® SOYBEAN TANK MIXES**

**Rhythm Herbicide** at 6-12 oz./A, can be tank mixed with glyphosate products (such as Glyfos X-TRA, Touchdown, or Roundup) that are labeled for Roundup Ready Soybeans for improved postemergence control of many weeds such as morningglory spp., hemp sesbania, waterhemp, and black nightshade, which are known to have tolerance to glyphosate but are susceptible to **Rhythm Herbicide**.

For improved control of **Glyphosate Resistant Populations**, the following weed heights and rates should be followed:

Use rates of 12 to 25 fl. oz./A, refer to the geographic region for the proper use rate.						
Glyphosate Resistant Weed	Weed Size	Region 1	Region 2	Region 3	Region 4	Region 5
Palmer amaranth	1-2 inches	25 fl oz	25 fl oz	20 fl oz	16 fl oz	12 fl oz
Common ragweed	2-3 inches	25 fl oz	25 fl oz	20 fl oz	16 fl oz	12 fl oz
Giant ragweed	2-3 inches	25 fl oz	25 fl oz	20 fl oz	16 fl oz	12 fl oz
Waterhemp	1-2 inches	25 fl oz	25 fl oz	20 fl oz	16 fl oz	12 fl oz

FOLLOW THE RECOMMENDATIONS ON THE GLYPHOSATE PRODUCT LABEL FOR THE USE OF SPRAY ADDITIVES IN THIS TANK MIX.

**DO NOT** allow this tank mix to move off target as contact by even minute quantities can cause severe damage or death to any non-target vegetation.

**NOTE:** Postemergence application of this tank mix on soybean varieties that do not contain the Roundup Ready gene will result in severe crop injury or death of the soybean crop. Always read and follow the recommendations, restrictions, and limitations for all products used. The most restrictive labeling of any product applies.

#### Improved Control of Emerged Dandelion

Tank mix Rhythm herbicide at 8-12 fluid ounces per acre with Glyfos® Xtra at 1 quart per acre for improved control of emerged dandelion as a preplant or preemergence application in soybeans.

Refer to the Glyfos Xtra EPA approved label for complete directions for use and all applicable restrictions and precautions.

#### **AERIAL SPRAY DRIFT MANAGEMENT ADVISORY**

#### SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- 1. The distance of the outer-most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **AERIAL DRIFT REDUCTION ADVISORY**.

#### **AERIAL DRIFT REDUCTION ADVISORY**

[This section is advisory in nature and does not supersede the mandatory label requirements.]

#### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. 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).

#### **CONTROLLING DROPLET SIZE**

- Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure: Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles: Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation: Orienting nozzles so that the spray is released parallel to the airstream
  produces larger droplets than other orientations and is the recommended practice.
   Significant deflection from horizontal will reduce droplet size and increase drift potential.
- 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. Solid-stream nozzles oriented straight back produce the largest droplets and the lower drift.

#### **BOOM LENGTH**

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

#### **APPLICATION HEIGHT**

Applications should not be made at a height greater than 10 ft. above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **SWATH ADJUSTMENT**

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

#### WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **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 low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures 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**

The pesticide should be applied only when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

### **APPENDIX**

COMMON NAME	SCIENTIFIC NAME	
Amaranth, Palmer	Amaranthus palmeri	
Amaranth, Spiny	Amaranthus spinosus	
Anoda, Spurred	Anoda cristata	
Balloonvine	Cardiospermum halicacabum	
Barnyardgrass	Echinochloa crus-galli	
Bindweed, Field	Convolvulus arvensis	
Bindweed, Hedge	Calystegia sepium	
Broadleaf Signalgrass	Brachiaria platyphylla	
Carpetweed	Mollugo verticillata	
Citron (Wild Watermelon)	Citrullus vulgaris	
Cocklebur, Common	Xanthium strumarium	
Copperleaf, Hophornbeam	Acalypha ostryifolia	
Copperleaf, Virginia	Acalypha virginica	
Crabgrass	Digitaria spp.	
Crotalaria, Showy	Crotalaria spectabilis	
Croton, Tropic	Croton glandulosus	
Cucumber, Volunteer	Cucumis sativas	
Eclipta	Eclipta prostrata	
Foxtail, Giant	Setaria faberi	
Foxtail, Green	Setaria viridis	
Foxtail, Yellow	Setaria glauca	
Goosegrass	Eleusine indica	
Groundcherry, Cutleaf	Physalis angulata	
Hemp	Cannabis sativa	
Horsenettle	Solanum carolinense	
Jimsonweed	Datura stramonium	
Johnsongrass, Seedling	Sorghum halepense	
Ladysthumb	Polygonum persicaria	
Lambsquarters, Common	Chenopodium album	
Mexicanweed	Caperonia castaniifolia	
Milkweed, Climbing	Sarcostemma cyanchoides	
Milkweed, Honeyvine	Ampelamus albidus	
Morningglory, Cypressvine	Ipomoea quamoclit	
Entireleaf	Ipomoea hederacea var. integriuscula	
lvyleaf	Ipomoea hederacea var. hederacea	
Purple Moonflower	Ipomoea turbinata	
Red (Scarlet)	Ipomoea coccinea	
Smallflower	Jacquemontia tamnifolia	
Pitted (Smallwhite)	Ipomoea lacunosa	

COMMON NAME	SCIENTIFIC NAME
Tall (Common)	Ipomoea purpurea
Palmleaf (Willowleaf)	Ipomoea wrightii
Mustard, Wild	Brassica kaber
Nightshade, Black	Solanum nigrum
Nutsedge, Yellow	Cyperus esculentus
Panicum, Fall	Panicum dichotomiflorum
Panicum, Texas	Panicum texanum
Pigweed, Redroot	Amaranthus retroflexus
Pigweed, Smooth	Amaranthus hybridus
Poinsettia, Wild	Euphorbia heterophylla
Purslane, Common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Ragweed, Common	Ambrosia artemisiifolia
Ragweed, Giant	Ambrosia trifida
Redweed	Melochia corchorifolia
Sesbania, Hemp	Sesbania exaltata
Sicklepod	Cassia obtusifolia
Sida, Prickly	Sida spinosa
Smartweed, Pennsylvania	Polygonum pensylvanicum
Smell melon	Cucumis melo
Spurge, Prostrate	Euphorbia humistrata
Spurge, Spotted	Euphorbia maculata
Starbur, Bristly	Acanthospermum hispidum
Sunflower, Common	Helianthus annuus
Trumpetcreeper	Campsis radicans
Velvetleaf	Abutilon theophrasti
Venice Mallow	Hibiscus trionum
Waterhemp, Common	Amaranthus rudis
Waterhemp, Tall	Amaranthus tuberculatos
Witchweed	Striga asiatica
Yellow Rocket	Barbarea vulgaris

#### STORAGE AND DISPOSAL:

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

#### Pesticide Storage:

Store above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

#### Pesticide Disposal: Refillable containers:

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### Pesticide Disposal: Nonrefillable containers 5 gallons or less:

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 and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

#### Nonrefillable containers 5 gallons or larger:

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 ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

#### WARRANTY DISCLAIMER

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

#### **INHERENT RISKS OF USE**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risk, to the extent consistent with applicable law, shall be assumed by Buyer and User. To the extent consistent with applicable law, the Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

#### **LIMITATION OF REMEDIES**

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to one of the following, at Cheminova's election:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses in any matter.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the Seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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