

87655-3

6/19/2014

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

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

June 19, 2014

Robert Hawk, Agent
Orion Fomes, LLC
P.O. Box 21720
Mesa, AZ 85277

Subject: Notification per PR Notice 98-10
Fomesafen 1.88 Herbicide
EPA Reg. No. 87655-3
Application Dated June 9, 2014

Dear Mr. Hawk:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product. Our review of this request finds that the action falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and placed in our records.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kathryn V. Montague".

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

2/23

Application for Pesticide - Section I

1. Company/Product Number 87655-3	2. EPA Product Manager K. Montague	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Fomesafen 1.88 Herbicide	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Orion Fomes, LLC P. O. Box 21720 Mesa, AZ 85277 <input checked="" 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 _____	NOTIFICATION JUN 19 2014
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input checked="" type="checkbox"/> Other - Explain below.	

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

It has come to our attention that a prior notification, accepted on November 26, 2012, had certain typographical errors. This notification corrects the errors in the prior notification.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" 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"/> Text No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	Other (Specify) _____
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 2.5 gal		5. Location of Label Directions <input type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input checked="" type="checkbox"/> Other plastic sleeve			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Robert Hawk	Title Agent	Telephone No. (Include Area Code) 928-342-3400
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 (Stamped)
2. Signature 	3. Title Agent	
4. Typed Name Robert Hawk	5. Date 6/9/2014	

A collection of 20 small, stylized line drawings of various birds, arranged in a grid-like fashion. The birds include shorebirds, waterfowl, and songbirds, each depicted in a simple, artistic style.

Sept. 6, 2012 notification (approved Nov. 26, 2012) corrected as instructed in Sept. 8, 2011 Notice of Registration

FOMESAFEN 1.88 HERBICIDE

For control of weeds in soybeans

GROUP 14 HERBICIDE

ACTIVE INGREDIENT

Sodium salt of

fomesafen [5-[2-chloro-4-trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide].....22.1%

OTHER INGREDIENTS:.....77.9%

TOTAL.....100.0%

NOTIFICATION

Equivalent to 21.0% fomesafen or 1.88 pounds per gallon fomesafen

JUN 19 2014

KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

Si usted no entiende la etiqueta, busque al 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 Additional Precautionary Statements and Directions for Use on label.

FIRST AID

IF IN EYES	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF SWALLOWED	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF IN EYES	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

For MEDICAL Emergencies 24 Hours a Day Call a Poison Control Center at 1-800-222-1222.
For CHEMICAL Emergency Assistance (Spill, Fire or Accident) Call ChemTrec at 1-800-424-9300.
Have the product container or label with you when calling a Poison Control Center or doctor of going for treatment.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

Orion Fomes, LLC
P.O. Box 21720
Mesa, AZ 85277
Tel. 480-218-4289

EPA Reg. No. 87655-3
EPA Est. No.
Net Contents: 2.5 gal

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING/AVISO

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

CAUSES SKIN IRRITATION. HARMFUL IF SWALLOWED OR ABSORBED THROUGH THE SKIN. Harmful if swallowed. Causes moderate eye irritation. Do not get on skin or on clothing. Avoid contact with eyes. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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

In addition, for aerial applications mixers and loaders handling more than 150 gallons of Fomesafen 1.88 Herbicide in any single workday must wear:

- Dust/mist filtering NIOSH-approved respirator with any N, R, P or HE filter.

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.

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.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove and wash contaminated clothing before reuse.
- 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.

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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 washwaters. 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 into 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

INFORMATION

Read all label directions before using.

Fomesafen 1.88 Herbicide is a selective herbicide which may be applied preplant, preemergence or postemergence for control or partial control of broadleaf weeds, grasses and sedges in soybeans.

Postemergence Applications

Fomesafen 1.88 Herbicide is generally most effective when used postemergence, working through contact action. Therefore, emerged weeds must have thorough spray coverage for

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effective control. Some bronzing, crinkling or spotting of soybean leaves may occur following a postemergence application, but soybeans soon outgrow these effects and develop normally.

Optimum weed control is achieved by postemergent applications of Fomesafen 1.88 Herbicide to young actively growing broadleaf weeds that are not under stress from moisture, temperature, low soil fertility or mechanical or chemical injury.

Information on Weed Resistance

Naturally occurring biotypes of certain broadleaf species with resistance to this herbicide and related products (same mode of action) are known to exist. Selection of resistant biotypes, through repeated use of these herbicides, may result in control failures.

If poor performance cannot be attributed to adverse weather conditions or improper application methods, a resistant biotype may be present. In such a case, additional treatments with this herbicide or similar mode of action products are not recommended. Consult your local company representative or agricultural advisor for assistance.

APPLICATION DIRECTIONS

Application Timing

Best broad-spectrum postemergence control of susceptible broadleaf weeds is obtained when Fomesafen 1.88 Herbicide is applied early to actively growing weeds. This usually occurs within 14 to 28 days after planting. Refer to the weed control tables for specific recommendations on weed growth stages and rates.

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 Fomesafen 1.88 Herbicide Regional Use Maps), Fomesafen 1.88 Herbicide can be used with 1.0% - 2.5% v/v liquid nitrogen (28% or similar) or a minimum of 8.5 pounds ammonium sulfate per 100 gallons of spray volume.

For Postemergence Applications Always Add One Of The Following Except in Tank Mix With Products Prohibiting Spray Additives (see Tank Mix Direction for Use):

Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) - Use a nonphytotoxic COC or MOS containing 15-20% approved emulsifier, at 0.5-1% v/v (2 - 4 quarts/100 gallons) of the finished spray volume. COC or MOS can improve weed control but may slightly reduce crop tolerance.

Nonionic Surfactant (NIS) - Use NIS containing at least 80% surface active agent at 0.25 - 0.5% v/v (1-2 quarts/100 gallons) of the finished spray volume.

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.)

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4. Is supported locally for use with Fomesafen 1.88 Herbicide on the target crop through proven field trials and through university and extension recommendations.

Note: No adjuvants are needed for preplant surface or preemergence applications unless Fomesafen 1.88 Herbicide is being used in a burndown on emerged weeds.

Recommended Mixing Order:

1. Fill the spray tank with half the required amount of water and begin agitation.*
 2. Add fertilizer (UAN, AMS)
 3. Add dry pesticide formulations.
 4. Add Fomesafen 1.88 Herbicide.
 5. Add liquid pesticide formulations.
 6. Add spray adjuvant (MSO, COC or NIS).
 7. Add the remaining water and maintain constant agitation.
- *Compatibility agent, 1 gallon/500 gallons of water or 0.2% v/v, may be added as needed.

Ground Application

Use sufficient spray volume and pressure to ensure complete coverage of the target weed. A minimum spray volume of 15 gallons per acre 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 gallons per acre to ensure coverage of weed foliage.

The use of flat fan nozzles will result in the most effective postemergence application of Fomesafen 1.88 Herbicide. 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 target weeds.

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

Band Applications

Thorough weed coverage is important for postemergence band applications. 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 resulting in less than adequate weed control.

Calculate the amount of herbicide and water volume needed for band treatment by the following formulas:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{band herbicide rate per acre}$$

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast volume per acre} = \text{band water volume per acre}$$

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Aerial Application

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

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

Cultivation

Cultivation prior to postemergence application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying Fomesafen 1.88 Herbicide may assist weed control.

Rainfastness

Fomesafen 1.88 Herbicide requires a 1 hour rain-free period for best results when applied postemergence.

RESTRICTIONS AND PRECAUTIONS

- A maximum of 1.6 pts. of Fomesafen 1.88 Herbicide (**or a maximum of 0.375 lb. 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 Fomesafen 1.88 Herbicide (**or a maximum of 0.375 lb. 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 Fomesafen 1.88 Herbicide (**or a maximum of 0.313 lb. 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 Fomesafen 1.88 Herbicide (**or a maximum of 0.25 lb. 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 Fomesafen 1.88 Herbicide (**or a maximum of 0.1875 lb. 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).
- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.
- Tank mixes of Fomesafen 1.88 Herbicide with other pesticides, fertilizers or any other additives except as specified on this label or other approved Source Dynamics supplemental labels may result in tank-mix incompatibility, unsatisfactory performance or unsatisfactory crop injury.
- Apply postemergence to actively growing weeds. Avoid applying Fomesafen 1.88 Herbicide to weeds or soybeans which 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 groundspeed not exceed 10 mph during application.
- Do not graze treated areas or harvest for forage or hay.

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- Do not apply within 45 days of soybean harvest.

ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying Fomesafen 1.88 Herbicide at recommended rates:

Crop to be Planted	Minimum Rotation Interval (Months After Last Fomesafen Application)
Cotton, dry beans, snap beans and soybeans	0
Small grains such as wheat barley and rye	4
Corn*, peanuts, peas, rice and 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.

*Use a 12 month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, and Region 4 when applied at rates of 1.0 pint per acre or more.

*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.

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

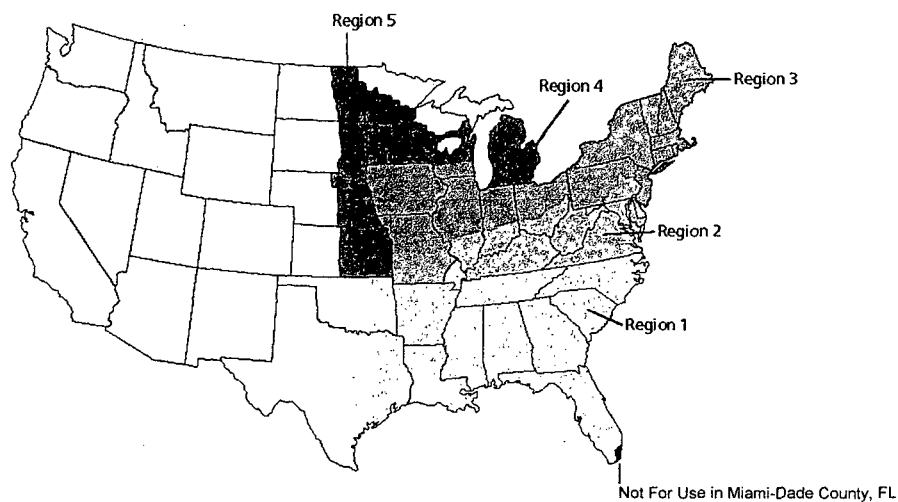
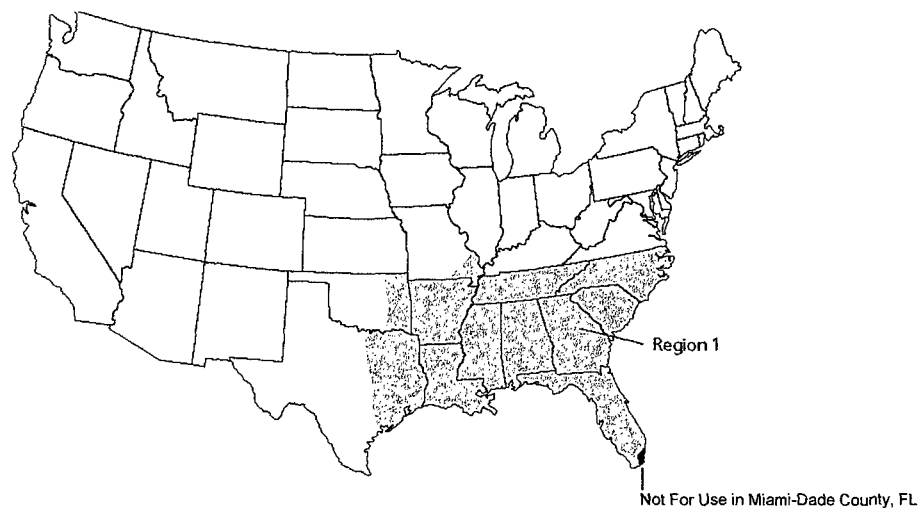
Replanting

If replanting is necessary in fields previously treated with Fomesafen 1.88 Herbicide, the field may be replanted to cotton, dry beans, snap beans or soybeans. During replanting, a minimum of tillage is recommended to preserve the herbicide barrier for effective weed control. Do not apply a second application of Fomesafen 1.88 Herbicide or other fomesafen containing products as crop injury or illegal residues may occur in harvested crops. If tank-mix combinations were used, refer to product labels for any additional replanting instructions.

USE RATES AND WEEDS CONTROLLED

REFER TO MAP FOR DEFINITION OF SPECIFIED GEOGRAPHIC REGIONS.

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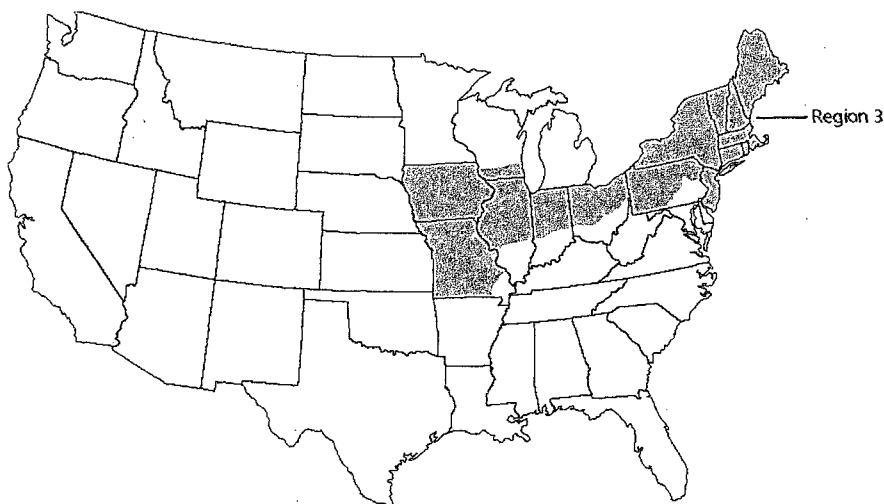
FOMESAFEN 1.88 REGIONAL USE MAP**REGION 1 (Maximum Rate: 1.6 pints per acre per year)**

REGION 1-Includes the following states or portion of states where Fomesafen 2 SL Herbicide may be applied: Alabama, Arkansas, Florida (except Miami-Dade County), 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 (includes area East of U.S. Highway 77 to State Road 239 including all of Calhoun County).

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REGION 2 (Maximum Rate: 1.6 pints per acre, alternate years)

REGION 2 -Includes the following states or portion of states where Fomesafen 1.88 Herbicide may be applied: Delaware, Kentucky, Maryland, Virginia, West Virginia, South of Interstate 70 in the following states: Illinois, Indiana and Ohio and 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 in Pennsylvania.

REGION 3 (Maximum Rate: 1.3 pints per acre, alternate years)

REGION 3 -Includes the following states or portion of states where Fomesafen 1.88 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 and 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 following states: Indiana, Illinois and Ohio.

A map of the United States with the states of Michigan, Indiana, Ohio, and Pennsylvania shaded with a stippled pattern. An arrow points from the text "Region 4" to the shaded area.

REGION 4 -Includes the following states or portion of states where Fomesafen 1.88 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 Barron, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Marathon, Menominee, Oconto, Polk, Shawano, and St. Croix counties. The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood). 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).

A collection of 15 small, stylized line drawings of various birds, including sparrows, finches, and songbirds, arranged in a grid-like fashion. The drawings are simple, using only outlines and minimal shading to represent the birds' forms and features like beaks and wings.

A map of the United States with state boundaries outlined. A line points from the label "Region 5" to a shaded area in the northern central United States, which includes parts of North Dakota, South Dakota, Nebraska, and Minnesota.

REGION 5 -Includes the following states or portion of states where Fomesafen 1.88 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).

[illegible]

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APPLICATION RATES FOR WEED GROWTH STAGES

Weed	Fomesafen 1.88 Herbicide Rate (pints per acre) Maximum Growth Stage Controlled At			
	0.75 pt/A No. of True Leaves	1 pt/A No. of True Leaves	1.25 pt/A No. of True Leaves	1.5 pt/A No. of True 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 ^c	2*	2*	2*	2*
Mexicanweed	--	2*	2	4
Morningglory spp.:				
Cypressvine	2	4	6	6
Entireleaf var.	3	3	4	5
Ivyleaf	3*	3	4	5 ^c c c c c ^c
Purple moonflower	3*	3	5	6 ^c c c c c ^c
Red (scarlet)	3*	3	6	6 ^c c c c ^c
Smallflower	3*	3	4	6 ^c c c c c ^c
Pitted (smallwhite)	4*	4	6	6 ^c c c c c c ^c c c c c c ^c
Tall (common)	2*	2	3	5 ^c c c c c c ^c
Palmleaf (willowleaf)	3*	3	6	6 ^c c c c c c ^c
Mustard, wild	4	6	8	8 ^c c c c c c ^c
Nightshade, black	2	4	6	6 ^c c c c c c ^c
Nutsedge, yellow	--	--	*	* ^c c c c c ^c
Pigweed spp.:				
Amaranth, Palmer	2	4	6	6
Amaranth, spiny	2	2	4	6
Redroot	2	4	6	8
Smooth	2	4	6	6
Waterhemp, common	2*	2	4	6
Waterhemp, tall	2*	2	4	6

APPLICATION RATES FOR WEED GROWTH STAGES (Continued)

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Weed	Fomesafen 1.88 Herbicide Rate (pints per acre) Maximum Growth Stage Controlled At			
	0.75 pt/A No. of True Leaves	1 pt/A No. of True Leaves	1.25 pt/A No. of True Leaves	1.5 pt/A No. of True Leaves
Poinsettia, wild	--	2	4	6
Purslane, 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
Smellmelon	--	2	2	4
Spurge, prostrate	--	--	1" diameter*	1" 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

*suppression only

SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

Suppression of Annual Grasses

The grasses listed below may be suppressed by postemergence applications of Fomesafen 1.88 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, a tank mix with a fluazifop-P-butyl formulation is suggested. Consult tank mix section.

Barnyardgrass
 Signalgrass, broadleaf
 Crabgrass
 Foxtail
 Giant
 Green
 Yellow
 Goosegrass
 Johnsongrass, seedling
 Panicum, fall

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Panicum, Texas

Suppression of Perennial Weeds

Use of Fomesafen 1.88 Herbicide postemergence at 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 Fomesafen 1.88 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
Trumpet creeper

TANK MIX AND SEQUENTIAL APPLICATIONS FOR SOYBEANS

Fomesafen 1.88 Herbicide can be used sequentially or in tank mix with one or more of the following products: Assure II, Basagran, Butyrac®, Classic®, Dual MAGNUM, Dual II MAGNUM®, FirstRate®, Fusilade® DX, Fusion®, Glyphosate (such as Touchdown, Roundup or Glyphomax™), Paraquat Concentrate, Harmony® GT XP, Pursuit, Poast, Poast Plus®, Prowl, Raptor, Resource®, Select®, Sequence, Scepter®, and Synchrony®STS®.

Under certain conditions, the mixture of Fomesafen 1.88 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 postemergence grass herbicide before applying Fomesafen 1.88 Herbicide or Fomesafen 1.88 Herbicide mixtures. Where Fomesafen 1.88 Herbicide or the Fomesafen 1.88 Herbicide mixture is applied first, apply the postemergence grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

NOTE:

- 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 Fomesafen 1.88 Herbicide.
- Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of Fomesafen 1.88 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.

GLYPHOSATE TOLERANT SOYBEAN TANK MIXES

Fomesafen 1.88 Herbicide at 6-12 oz./A, can be tank mixed with glyphosate products such as Touchdown or Roundup that are labeled for glyphosate tolerant soybeans for improved postemergence control of many weeds such as morningglory spp., hemp sesbania, waterhemp and black

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nightshade which are known to have tolerance to glyphosate, but are susceptible to Fomesafen 1.88 Herbicide.

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 nontarget vegetation.

NOTE: Postemergence application of this tank mix on soybean varieties which do not contain the glyphosate tolerant 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.

**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 determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift 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 $\frac{3}{4}$ 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 Inversion** sections of this label).

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** - Use the lower spray pressures recommended for the nozzle. Higher pressure

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reduces droplet size and does not improve canopy penetration. 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 backwards, parallel to the airstream will produce larger droplets than other orientations. 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 larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ 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 feet above the top of the largest 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 must 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 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, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

APPENDIX

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, spiny	<i>Amaranthus spinosus</i>
Anoda, spurred	<i>Adoda cristata</i>
Balloonvine	<i>Cardiospermum halicacabum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, field	<i>Convolvulus arvensis</i>
Bindweed, hedge	<i>Calystegia sepium</i>
Broadleaf signalgrass	<i>Bracharia platyphylla</i>
Carpetweed	<i>Mullugo verticillata</i>
Citron (wild watermelon)	<i>Citrullus vulgaris</i>
Cocklebur, common	<i>Xanthium strumarium</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>
Copperleaf, Virginia	<i>Svs;ulfjs bothomovs</i>
Crabgrass	<i>Digitaria</i> spp.
Crotalaria, showy	<i>Crotalaria spectabilis</i>
Croton, tropic	<i>Croton glandulosus</i>
Cucumber, volunteer	<i>Cucumis sativas</i>
Eclipta	<i>Eclipta prostrate</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Groundcherry, cutleaf	<i>Physalis angulata</i>
Hemp	<i>Cannabis sativa</i>
Horsenettle	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass, seedling	<i>Sorghum halapense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castanifolia</i>
Milkweed, climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, honeyvine	<i>Ampelamus albidus</i>
Morningglory:	
Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf var.	<i>Ipomoea hederacea</i> var. <i>intergriuscula</i>

Ivyleaf	<i>Ipomoea hederacea</i>
Purple moonflower	<i>Ipomoea turbinata</i>
Red (scarlet)	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Pitted (smallwhite)	<i>Ipomoea lacunose</i>
Tall (common)	<i>Ipomoea purpurea</i>
Palmleaf (willowleaf)	<i>Ipomoea wrightii</i>
Mustard, wild	<i>Sinapis arvensis</i>
COMMON NAME	SCIENTIFIC NAME
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, Eastern black	<i>Solanum ptychanthum</i>
Nightshade, hairy	<i>Solanum physalifolium</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Pigweed:	
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, spiny	
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Poinsettia, wild	<i>Euphorbia heterophylla</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, common	<i>Ambrosia artemisifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melchia corchorifolia</i>
Sesbania, hemp	<i>Sesbania exaltata</i>
Sicklepod	<i>Senna obtusifolia</i>
Sida, prickly	<i>Sida spinosa</i>
Signalgrass, broadleaf	<i>Bracharia platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Spurge, prostrate	<i>Chamaesyce humistrata</i>
Spurge, spotted	<i>Chamaesyce maculate</i>
Starbur, bristly	<i>Acanthospermum hispidum</i>
Sunflower, common	<i>Helianthus annuus</i>
Trumpetcreeper	<i>Campis redicans</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice mallow	<i>Hibiscus trionum</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Witchweed	<i>Striga asiatica</i>
Yellow rocket	<i>Barbarea vulgaris</i>

STORAGE AND DISPOSAL

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

Prohibitions

Open dumping is prohibited. Do not reuse empty container.

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

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling for Containers Less than 5 Gallons

Non-refillable 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 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 and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling for Bulk and Mini-Bulk Containers

Refillable container. Refill this container with pesticide only. Do not use 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 person refilling. To clean 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 or rinsate collection system. Repeat this rinsing procedure 2 more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities. If the container is damaged, leaking or obsolete, contact Orion Fomes, LLC at 480-218-4289.

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

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