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



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Morris Gaskins Registrations Manager Albaugh, LLC P.O. Box 2127 Valdosta, GA 31604 OCT 29 2014

Subject:

Labeling Amendment to Add Additional Use Geography

Fomesafen + Imazethapyr SC EPA Reg. No. 42750-239

Application dated September 17, 2014

Decision Number: 495662

Dear Mr. Gaskins:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised master labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Your release for shipment of the subject product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(c). If you have any questions regarding this letter, please feel free to contact Terri Stowe at (703) 305-6117 or via e-mail at <a href="mailto:stowe.terri@epa.gov">stowe.terri@epa.gov</a>.

Sincerely,

Kathryn V. Montague Product Manager 23

Herbicide Branch

Registration Division (7505P)

EDITOR'S NOTE: 9/17/14 amendment to add Region 3.

# FOMESAFEN + IMAZETHAPYR SC

For Control of Weeds in Soybeans

Under the Federal Insecticide, fragicitie, and Rodensicide Act, as characted, for the posticide togethered under 13.750-239

ACCEPTED

OCT 29 2014

| ACTIVE INGREDIENTS:                                                             |         |
|---------------------------------------------------------------------------------|---------|
| Sodium salt of fomesafen                                                        |         |
| 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide     | 22.05%* |
| Ammonium salt of imazethapyr                                                    |         |
| (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1 <i>H-</i> imidazol-2-yl]- |         |
| 5-ethyl-3-pyridinecarboxylic acid                                               | 5.38%** |
| OTHÉR INGREDIENTS:                                                              | 72.57%  |
| TOTAL:                                                                          | 100.00% |
|                                                                                 |         |

## KEEP OUT OF REACH OF CHILDREN.

## DANGER/PELIGRO

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.)

|                           | 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 INHALED                | <ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth, if possible.</li> <li>Call a Poison Control Center or doctor for further treatment advice.</li> </ul>                                             |
| IF<br>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 by a Poison Control Center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul> |
| IF ON SKIN OR<br>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>                                                                                                                |
|                           | ICIAN - Probable mucosal damage may contraindicate the use of gastric lavage. coccurrent to container or label with you when calling a Poison Control Center or doctor or going for                                                                                                                              |

EPA Reg. No. 42750-239

EPA Est. No. 42750-MO-001

NET CONTENTS: \_\_\_\_ Gals.

MANUFACTURED BY: Albaugh, LLC Ankeny, IA 50021

HOT LINE NUMBER - For 24 Hour Emergency Assistance call CHEMTREC at 1-800-424-9300

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<sup>\*</sup> Equivalent to 21.0% fomesafen (or 2.0 lbs. fomesafen acid equivalent per gal).

<sup>\*\*</sup>Equivalent to 5.1% (±)-2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-ethyl-3-pyridinecarboxylic acid (or 0.5 lbs. imazethapyr acid equivalent per gal).

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## DANGER/PELIGRO

This product contains formesafen 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.

Corrosive. Causes irreversible eye damage. Harmful if swallowed or inhaled. Do not get in eyes or on clothing. Avoid breathing spray mist.

## PHYSICAL OR CHEMICAL HAZARDS

Do not use with or store near oxidizing agents.

## 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:

- · Long-sleeved shirt and long pants
- · Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)

## **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/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.
- Remove and wash contaminated clothing before reuse.

## **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 water or rinsate. Do not apply when weather conditions favor drift from target area.

This chemical has properties and characteristics associated with chemicals detected in groundwater chemical may leach into groundwater if used in areas where permeable, particularly where the water cable is shallow.

Groundwater Advisory and Proper Handling Instructions

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells) and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes or reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

DO NOT apply this product through any type of irrigation system.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixture.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

PESTICIDE STORAGE: Store above 32°F in original containers only. If product solidifies, 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 [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 equipment or mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of the 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 tanks from this 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 circulate water with the pump for sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities. If the container is damaged, leaking or obsolete, contact Albaugh, LLC at 1-800-247-8013.

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

## **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
- Chemical-resistant gloves (made of any waterproof material)
- · Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses)

#### 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 movement from aerial applications to agricultural field crops.

- 1. The distance of the outermost nozzles on the boom must not exceed ¾ 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 section.

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#### AERIAL DRIFT REDUCTION ADVISORY INFORMATION

#### IMPORTANCE OF 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: 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 75% 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 winds speeds of 2-10 mph. However, many factors, including droppets 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 carrye

#### 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).

## PRODUCT INFORMATION

Read all label directions before using.

FOMESAFEN + IMAZETHAPYR SC is a selective herbicide which may be applied preplant, preemergence or postemergence for control or suppression of broadleaf weeds, grasses and sedges in soybeans.

FOMESAFEN + IMAZETHAPYR SC is generally most effective and consistent when used postemergence, working through contact action. Therefore, emerged weeds must have thorough spray coverage for effective control. Some bronzing, crinkling or spotting of soybean leaves may occur following a postemergent application, but soybeans soon outgrow these effects and develop normally.

FOMESAFEN + IMAZETHAPYR SC also kills weeds by root and/or foliage uptake and rapid translocation to the growing points. Adequate soil moisture is important for optimum FOMESAFEN + IMAZETHAPYR SC activity. When adequate soil moisture is present, FOMESAFEN + IMAZETHAPYR SC will provide residual control of susceptible germinating weeds; activity on established weeds will depend on the weed species and the location of its root system in the soil.

Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following FOMESAFEN + IMAZETHAPYR SC applications. These effects occur infrequently and are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

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

Certain germinating broadleaf weeds, grasses and sedges may be controlled or suppressed by soil residual activity from either preplant, preemergent or postemergent applications if rainfall occurs shortly after application. The extent and consistency of soil activity is dependent upon soil characteristics, ground cover, amount of rainfall following application and the rate of FOMESAFEN + IMAZETHAPYR SC-used.

Information on Weed Resistance

Naturally occurring biotypes of certain broadleaf species with resistance to fomesafen and imazethabyr 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 agiicultural advisor for assistance.

When organophosphate (such as Lorsban) or carbamate insecticides are tank-mixed with FOMESAFEN + IMAZETHAPYR SC, temporary injury may result to the treated crops.

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Use of FOMESAFEN + IMAZETHAPYR SC herbicide in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Under some conditions (such as heavy texture soil, high organic matter, low pH or low rainfall) FOMESAFEN + IMAZETHAPYR SC may cause injury to subsequent planted crops. Vegetable crops and particularly sugar beets are sensitive to FOMESAFEN + IMAZETHAPYR SC residues in the soil.

Replanting: If replanting is necessary in a field previously treated with FOMESAFEN + IMAZETHAPYR SC, the field may be replanted to soybeans. Rework the soil no deeper than the treated zone. Do not apply a second treatment of FOMESAFEN + IMAZETHAPYR SC.

## APPLICATION DIRECTIONS

## Spray Additives

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

For best broad spectrum postemergence control of susceptible broadleaf weeds in Region 2 (see Regional Use Maps), FOMESAFEN + IMAZETHAPYR SC 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) or Methylated Seed Oil (MSO):

Use a nonphytotoxic COC or MSO containing 15 - 20% approved emulsifier at 0.5 - 1% v/v (2 - 4 qts./100 gals.) of finished spray volume. COC or MSO can improve weed control but may slightly reduce crop tolerance.

Nonionic Surfactant (NIS):

Use NIS containing at least 80% active ingredient at 0.250.5% v/v (2 - 4 qts./100 gals.) of 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.)
- 4. Is supported locally for use with FOMESAFEN + IMAZETHAPYR SC 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 FOMESAFEN + IMAZETHAPYR SC is being used in a burndown.

## Recommended Mixing Order:

- 1. Fill spray tank with half the required amount of water and begin agitation\*
- 2. Add fertilizer (UAN, AMS).
- Add dry pesticide formulations.
- 4. Add FOMESAFEN + IMAZETHAPYR SC.
- 5. Add liquid pesticide formulation.
- 6. Add adjuvant (MSO, COC or NIS).
- 7. Add remainder of water and then maintain constant agitation.

\*Compatibility agent, 1 gal./500 gals, 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. 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.

The use of flat fan nozzles will result in the most effective postemergence application of FOMESAFEN + IMAZETHAPYR SC. 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 postemergent 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, 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

Broadcast rate per acre = Band herbicide rate per acre

Band width in inches Broadcast volume per acre = Band herbicide rate per acre Row width in inches

#### 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 a weed control. Timely cultivation 1-3 weeks after applying FOMESAFEN + IMAZETHAPYR SC may assist weed control.

#### Rainfastness

FOMESAFEN + IMAZETHAPYR SC requires a 1 hour rain-free period for best results when applied postemergence.

#### PRECAUTIONS & RESTRICTIONS

- A maximum of 1 pt. of FOMESAFEN + IMAZETHAPYR SC (or a maximum of 0.25 lbs. a.i./A of fomesafen and 0.0625 lbs. a.i./A of imazethapyr from any product containing fomesafen or imazethapyr) may be applied per acre <u>per year</u> in Region 1 (see Regional Map).
- A maximum of 1 pt. of FOMESAFEN + IMAZETHAPYR SC (or a maximum of 0.25 lbs. a.i./A of fomesafen and 0.0625 lbs. a.i./A of imazethapyr from any product containing fomesafen or imazethapyr) may be applied per acre in alternate years in Region 2 (see Regional Map).
- A maximum of 0.75 pt. of FOMESAFEN + IMAZAETHAPYR SC (or a maximum of 0.1875 lbs of 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).
- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each
  use.
- Tank mixes of FOMESAFEN + IMAZETHAPYR SC with other pesticides, fertilizers or any other additives except as specified on this label or other approved Albaugh, LLC supplemental labels may result in tank mix incompatibility, unsatisfactory performance and/or unsatisfactory crop injury.
- Apply postemergence to actively growing weeds. Avoid applying FOMESAFEN + IMAZETHAPYR SC
  to weeds or soybeans which are under stress from moisture, temperature, low soil fertility,
  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 spray coverage, ground speed must not exceed 10 MPH during application.
- Do not graze treated areas or harvest for forage or hay.
- Do not apply within 85 days of soybean harvest.
- In New York State Not for Sale or Use on Long Island.
- Not for Use in Miami-Dade County, Florida
- Do not apply this product through any type of irrigation system.



## ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying FOMESAFEN + IMAZETHAPYR SC at recommended rates in soybeans:

| Crops To Be Planted                                                                                                                                                  | Minimum Rotation Interval<br>(Months After Last FOMESAFEN +<br>IMAZETHAPYR SC Application) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Dry beans, Snap beans, Soybeans, Cotton                                                                                                                              | 0                                                                                          |
| Small grains Wheat, <u>Barley</u> and Rye (except in North Dakota and Minnesota north of Highway #210)                                                               | 4                                                                                          |
| Barley                                                                                                                                                               | <del>9.1/2</del>                                                                           |
| Corn* (Field corn and field corn grown for seed), Peanuts, and Peas                                                                                                  | 10                                                                                         |
| Alfalfa, Sunflowers, <u>Sugar Beets</u> , Sorghum**,<br><del>Cotton</del> , <del>Sweet corn</del> , and Rye (in North Dakota and<br>Minnesota north of Highway #210) | 18                                                                                         |
| Potatoes, Flax                                                                                                                                                       | 26                                                                                         |
| All crops not listed in this Rotational Crop Guideline                                                                                                               | . 40                                                                                       |

<sup>\*</sup>Use a 12 month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa and Region 2 when applied at a rate of 1.0 pt/A 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 3.

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

Do not graze rotated small grain crops or harvest forage or straw for livestock.

## Replanting:

If replanting is necessary in fields previously treated with FOMESAFEN + IMAZETHAPYR SC, the field may be replanted to soybeans. Do not apply a second application of FOMESAFEN + IMAZETHAPYR SC or other fomesafen-containing product 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

#### **REGION 1**

## Application Timing and Rate

Make one post-emergent application per year at 0.75 to 1.0 pint/Acre. Refer to the weed control tables for specific recommendations on weed growth stages and rates.

Best broad spectrum postemergence control of susceptible broadleaf weeds is obtained when FOMESAFEN + IMAZETHAPYR SC is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting.

REGION 1: Includes the following states or portion of states:

Alabama

Arkansas,

Florida (except Miami-Dade County),

Georgia,

Louisiana,

Mississippi,

Missouri

(Counties of Bollinger, Butler, Cape Giradeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne).

North Carolina

Oklahoma

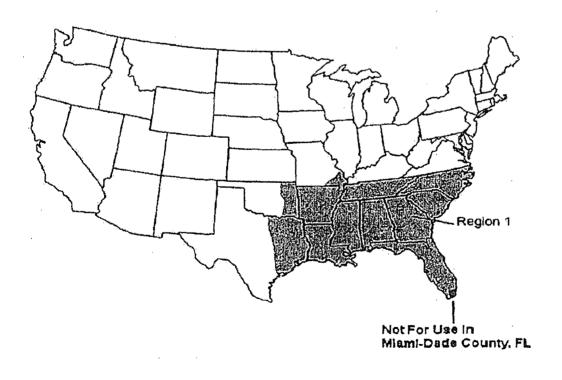
(East of U.S. Highway 75 and East of Indian Nation Parkway)

South Carolina,

Tennessee.

Texas

(all areas East of U.S. Highway 77 to State Road 239, including all of Calhoun County).





## **REGION 2**

## Application Timing and Rate

Make one post-emergent application on alternate years at 0.75 to 1.0 pint/Acre. Refer to the weed control tables for specific recommendations on weed growth stages and rates.

Best broad spectrum postemergence control of susceptible broadleaf weeds is obtained when FOMESAFEN + IMAZETHAPYR SC is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting.

REGION 2: Includes the following states or portion of states:

Connecticut, Delaware,

Illinois,

Indiana,

lowa,

Kansas

(all counties East of or intersected by U.S. Highway 281)

Kentucky,

Maine.

Maryland,

Massachusetts.

Michigan (Southern Peninsula)

Minnesota

(all areas South of Interstate 94)

Missouri

(all counties except for those listed in Region 1)

Nebraska

(all counties East of or intersected by U.S.

Highway 281)

New Hampshire,

New Jersey,

New York (except Long Island)

North Dakota

(all areas East of Interstate 29 from Fargo South to the South Dakota state line)

Ohio.

Pennsylvania,

Rhode Island,

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)

Vermont,

Virginia.

West Virginia,

Wisconsin

(South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee)



# REGION 3 (Maximum Rate 0.75 pts/A, alternate years)

## **Application Timing and Rate**

Make one post-emergent application on alternate years at 0.75 pint/Acre. Refer to the weed control tables for specific recommendations on weed growth stages and rates.

Best broad spectrum postemergence control of susceptible broadleaf weeds is obtained when FOMESAFEN + IMAZETHAPYR SC is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting.

## REGION 3: Includes the following states or portion of states:

North Dakota (all areas East of U.S. Highway 281 except those areas in Region 2), South Dakota (all areas East of U.S. Highway 281 except those areas in Region 2) and Minnesota (all areas South of U.S. Highway 2 except those areas in Region 2).



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## APPLICATION RATES FOR WEED GROWTH STAGES

|                         | FOMESAFEN + IMAZ                        | ZETHAPYR SC (pt./A)       |
|-------------------------|-----------------------------------------|---------------------------|
|                         | Maximum Growth Stage Controlled At      |                           |
| Weed                    | 3/4 pt./A                               | 1 pt./A                   |
|                         | No. of True Leaves                      | No. of True Leaves        |
| Anoda, Spurred          |                                         | 2*                        |
| Balloonvine             |                                         |                           |
| Carpetweed              |                                         | 8" Diameter Size          |
| Citron                  | <b></b>                                 | 2                         |
| (Wild Watermelon)       |                                         |                           |
| Cocklebur, Common       | 2                                       | 4                         |
| Copperleaf, Hophornbeam |                                         | 4                         |
| Copperleaf, Virginia    | -                                       | 4                         |
| Crotalaria, Showy       |                                         | 6                         |
| Croton, Tropic          |                                         | 4                         |
| Cucumber, Volunteer     |                                         | 4                         |
| Eclipta                 |                                         | 2                         |
| Groundcherry, Cutleaf   |                                         | 4                         |
| Hemp                    |                                         | 4                         |
| Horsenettle             |                                         | 2*                        |
| Jimsonweed              | 4                                       | 6                         |
| Ladysthumb              | 2*                                      | 2                         |
| Lambsquarters, Common   | 2*                                      | 2*                        |
| Mexicanweed             |                                         | 2*                        |
| Cypressvine             | 2                                       | 4                         |
| Entireleaf var.         | 3*                                      | 3                         |
| Ivyleaf                 | 3*                                      | 3                         |
| Purple Moonflower       | 3*                                      | 3                         |
| Red (Scarlet)           | 3*                                      | 3                         |
| Smallflower             | 3*                                      | 3                         |
| Pitted (Smallwhite)     | 4*                                      | 4                         |
| Tall (Common)           | 2*                                      | 2                         |
| Palmleaf (Willowleaf)   | 3*                                      | 3                         |
| Mustard, Wild           | 4                                       | 6                         |
| Nightshade, Black       | 2                                       | 4                         |
| Nutsedge, Yellow        |                                         |                           |
| Amaranth, Palmer        | 2                                       | 4                         |
| Amaranth, Spiny         | 2                                       | 2                         |
| Redroot                 |                                         |                           |
| Smooth                  | 2 2                                     | 4 c c c                   |
|                         | 2*                                      | 2                         |
| Waterhemp, Common       | 0.1                                     |                           |
| Waterhemp, Tall         | · · ·   · · · · · · · · · · · · · · · · | \ \ \ \ \ \               |
| Poinsettia, Wild        |                                         | 2                         |
| Purslane, Common        |                                         | Multi-Leaf<br>6" Diameter |
| Pusley, Florida         |                                         | 2                         |
| Ragweed, Common         | 4*                                      | 4                         |
| Ragweed, Giant          | 4*                                      | 4                         |
| Redweed                 |                                         | cc                        |
| Sesbania, Hemp          |                                         | 8                         |
| Sicklepod               | ·                                       |                           |
| Sida, Prickly           |                                         | 2*                        |
|                         |                                         |                           |

|                   | FOMESAFEN + IMAZ                   | ZETHAPYR SC (pt./A) |
|-------------------|------------------------------------|---------------------|
|                   | Maximum Growth Stage Controlled At |                     |
| Weed              | 3/4 pt./A                          | 1 pt./A             |
|                   | No. of True Leaves                 | No. of True Leaves  |
| Smellmelon        |                                    | . 2                 |
| Spurge, Prostrate |                                    |                     |
| Spurge, Spotted   |                                    |                     |
| Starbur, Bristly  |                                    | 4                   |
| Sunflower, Common |                                    |                     |
| Velvetleaf        |                                    | 2                   |
| Venice Mallow     | 4                                  | 6                   |
|                   |                                    | Multi-Leaf          |
| Witchweed         |                                    | Up to 7"            |
| Yellow Rocket     | 4                                  | 4                   |

<sup>\*</sup>Suppression only

## USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

## Suppression of Annual Grasses:

The grasses listed below may be suppressed by postemergence applications and controlled or suppressed by preemergence applications of FOMESAFEN + IMAZETHAPYR SC at 1.0 pts./A. Consult Use Rate Table for maximum rate in each region. For full-season broad-spectrum annual grass control, Fusilade® DX or Fusion® herbicide should be used alone or in tank mix with FOMESAFEN + IMAZETHAPYR SC. 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 FOMESAFEN + IMAZETHAPYR SC at postemergence rates of 1.0 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 + IMAZETHAPYR SC 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

FOMESAFEN + IMAZETHAPYR SC can be used sequentially or in tank mix with one or more of the following products: Assure II®, Basagran®, Butyrac®, Classic®, FirstRate®, Fusilade DX, Fusion, Ignite®, Glyphosate (such as Touchdown®, Roundup®, Glyphomax™), Gramoxone® Inteon, Harmony®, Poast®, Poast Plus®, Pursuit®, Raptor®, Resource®, Scepter®, Select®, and Synchrony® STS®.

Under certain conditions, the mixture of FOMESAFEN + IMAZETHAPYR SC 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 FOMESAFEN + IMAZETHAPYR SC or FOMESAFEN + IMAZETHAPYR SC mixtures. Where FOMESAFEN + IMAZETHAPYR SC or the FOMESAFEN + IMAZETHAPYR SC mixture is applied first, apply the grass herbicide when 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 FOMESAFEN + IMAZETHAPYR SC.
- Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of FOMESAFEN
  + IMAZETHAPYR SC 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.

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.

APPENDIX – Scientific names are listed for those weeds referred to in the FOMESAFEN + IMAZETHAPYR SC label.

| COMMON NAME               | SCIENTIFIC NAME                      |                                          |
|---------------------------|--------------------------------------|------------------------------------------|
| Amaranth, Palmer          | Amaranthus palmeri                   |                                          |
| Amaranth, Spiny           | Amaranthus spinosus                  |                                          |
| Anoda, Spurred            | Anoda cristata                       |                                          |
| Balloonvine               | Cadiospermum 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       | Cucumbis sativas                     |                                          |
| Eclipta                   | Eclipta prostrate                    | 484,                                     |
| 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 | Ipomoeaquamoclit                     | · · · · · · · · · · · · · · · · · · ·    |
| Entireleaf                | Ipomoea hederacea var. integriuscula | -                                        |
| Ivyleaf                   | Ipomoea hederacea var. hederacea     | 6000                                     |
| Purple Moonflower         | Ipomoea turbinata                    | CCUC                                     |
| Red (Scarlet)             | Ipomoea coccinea                     | C C C C C                                |
| Smallflower               | Jacquemontia tamnifolia              | C C C C                                  |
| Pitted (Smallwhite)       | Ipomoea lacunose                     | · ·                                      |
| Tall (Common)             | Ipomoea purpurea                     | £ C C C 6 6                              |
| Palmleaf (Willowleaf)     | Ipomoea wrightii                     |                                          |
| Mustard, Wild             | Brassica kaber                       | C C G                                    |
| Nightshade, Black         | Solanum nigrum                       | <u> </u>                                 |
| Nutsedge, Yellow          | Cyperus esculentus                   | <u> </u>                                 |
| Panicum, Fall             | Panicum dichotomiflorum              | ( ~( ~( ~( ~( ~( ~( ~( ~( ~( ~( ~( ~( ~( |
| Panicum, Texas            | Panicum texanum                      | - (((                                    |
| Pigweed, Redroot          | Amaranthus retroflexus               | ((,,,                                    |
| Pigweed, Smooth           | Amaranthus hybridus                  |                                          |
| Poinsettia, Wild          | Euphorbia heterophylla               |                                          |
| Purslane, Common          | Portulaca oleracea                   |                                          |
| ruisiane, Common          | Fultulaca oleracea                   |                                          |

| COMMON NAME             | SCIENTIFIC NAME          |
|-------------------------|--------------------------|
| 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 pennsylvanicum |
| Smellmelon              | Cucumis melo             |
| Spurge, Prostrate       | Euphorbia humistrata     |
| Spurge, Spotted         | Euphorbia maculate       |
| Starbur, Bristly        | Acanthospermum hispidum  |
| Sunflower, Common       | Helianthus annuus        |
| Trumpetcreeper          | Campsis redicans         |
| Velvetleaf              | Abutilon theophrasti     |
| Venice Mallow           | Hibiscus trionum         |
| Waterhemp, Common       | Amaranthus rudis         |
| Waterhemp, Tall         | Amaranthus tuberculatos  |
| Witchweed               | Striga asiatica          |
| Yellow Rocket           | Barbarea vulgaris        |

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