

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

April 13, 2022

Travis Bui Regulatory Specialist Corteva AgriSciences, LLC 9330 Zionsville Road Indianapolis, IN 46268

Subject: Label Amendment – Updating Label User Safety Recommendations, Spray Drift

Management, Use Restrictions; Other Minor Revisions; Label Mitigation Required by the Registration Review Interim Decision for Pyroxsulam

Product Name: GF-2468

EPA Registration Number: 62719-643

Application Date: 01/12/2018 and 4/13/2022 Decision Number: 537606 and 583465

Dear Mr. Bui:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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

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

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

Page 2 of 2 EPA Reg. No. 62719-643 Decision No. 537606 and 583465

Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the 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. If you have any questions, please contact Jasmin Jackson by phone at 202-566-2797, or via email at Jackson.Jasmin@epa.gov.

Sincerely,

Debra Rate, Ph.D., Senior Regulatory Specialist

Invertebrate and Vertebrate Branch 2

Registration Division (7505P) Office of Pesticide Programs

Attachment

(Base label):

PYROXSULAM GROUP 2 HERBICIDE

# **GF-2468**

Herbicide

Alternate Brand Name: PowerFlex® HL

For postemergent control of annual grass and broadleaf weeds in winter wheat and triticale.

Not for Sale, Distribution, and/or Use in Nassau and Suffolk Counties of New York State.

Active Ingredient:

Contains 0.13 lb of active ingredient per pound of product.

# ACCEPTED

04/13/2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

62719-643

# Keep Out of Reach of Children

# **Precautionary Statements**

#### Hazards to Humans and Domestic Animals

Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- · Shoes plus socks
- · Waterproof gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **Engineering Controls**

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

# **User Safety Recommendations**

Users should:

- Wash hands 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.

# Nonrefillable rigid containers 50 lb or less:

# Storage and Disposal

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in original container only.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Handling: Nonrefillable container. DO NOT reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. 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.

# Nonrefillable nonrigid containers:

# **Storage and Disposal**

**DO NOT** contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in original container only.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site according to label use directions or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling if available or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

# Refillable rigid containers larger than 50 lb:

# Storage and Disposal

**DO NOT** contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in original container only.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site according to label use directions or at an approved waste disposal facility.

**Container Handling:** Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### Nonrefillable rigid containers larger than 50 lb:

# **Storage and Disposal**

**DO NOT** contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in original container only.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Handling: Nonrefillable container. DO NOT reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several

times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tan or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. 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.

Refer to label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: **DO NOT** ship or store with food, feeds, drugs, or clothing.

EPA Reg. No. 62719-643 EPA Est. \_\_\_\_\_

™®Trademarks of Corteva Agriscience and its affiliated companies

Produced for Corteva Agriscience LLC 9330 Zionsville Road Indianapolis, IN 46268

Net Weight\_\_\_\_

(Cover, shipping container):

PYROXSULAM GROUP 2 HERBICIDE

# **GF-2468**

Herbicide

Alternate Brand Name: PowerFlex® HL

For postemergent control of annual grass and broadleaf weeds in winter wheat and triticale.

Not for Sale, Distribution, and/or Use in Nassau and Suffolk Counties of New York State.

Active Ingredient:

Contains 0.13 lb of active ingredient per pound of product.

# **Keep Out of Reach of Children**

EPA Reg. No. 62719-643

# **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information and Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: **DO NOT** ship or store with food, feeds, drugs, or clothing.

Trademarks of Corteva Agriscience and its affiliated companies Produced for Corteva Agiscience LLC 9330 Zionsville Road Indianapolis, IN 46268

N	<b>Vet</b>	W	Iحا	'n	ht
	46 L	•		ч	

EPA Est.

(Page 1 through end):

# **Precautionary Statements**

# **Hazards to Humans and Domestic Animals**

Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals

# **Personal Protective Equipment (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- · Shoes plus socks
- · Waterproof gloves

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **Engineering Controls**

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

# **User Safety Recommendations**

Users should:

- Wash hands 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.

#### **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 washwater or rinsate.

GROUND WATER ADVISORY: This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

SURFACE WATER ADVISORY: This product may contaminate surface water due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater.

This product is classified as having high potential for runoff for several days after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of pyroxsulam from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is expected to occur within 48 hours.

NON-TARGET ORGANISM ADVISORY: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label direction intended to minimize spray drift.

#### **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

**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 the label about personal protective equipment, restricted-entry interval, and notification to workers (as applicable). The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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, wear:

- Coveralls
- · Waterproof gloves
- Shoes plus socks

# **Storage and Disposal**

**DO NOT** contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in original container only.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site according to label use directions or at an approved waste disposal facility.

#### Nonrefillable rigid containers 50 lb or less:

Container Handling: Nonrefillable container. DO NOT reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. 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.

# Nonrefillable nonrigid containers:

**Container Handling:** Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling if available or dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable rigid containers larger than 50 lb:

**Container Handling:** Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

# Nonrefillable rigid containers larger than 50 lb:

**Container Handling:** Nonrefillable container. **DO NOT** reuse or refill this container.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tan or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. 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.

#### **Product Information**

Use GF-2468 as a postemergence herbicide for the control of annual grass and broadleaf weeds in winter wheat and triticale.

GF-2468 rapidly stops growth of susceptible weeds. However, typical symptoms (discoloration) of controlled or suppressed weeds may not be noticeable for 1 to 2 weeks after application, depending upon growing conditions and weed susceptibility. Degree of control and duration of effect are dependent upon weed sensitivity, weed size, crop competition, growing conditions at and following treatment, and spray coverage.

# Restrictions

CROPS	Maximum Oz of Product/ Acre/ Single Application	Maximum Lb Al/ Acre/Single Application	Maximum Number of Applications Per Year	Maximum Oz of Product /Acre/Year	Maximum Lb AI/A per Year	Last Treatment Preharvest Interval
Winter Wheat and Triticale	2	0.0164 lb ai pyroxsulam	1	2	0.0164 lb ai pyroxsulam	60 days

- Not for Sale, Distribution, and/or Use in Nassau and Suffolk Counties of New York State.
- Chemigation: DO NOT apply this product through any type of irrigation system.
- DO NOT apply GF-2468 directly to, or otherwise permit it to come into direct contact with, susceptible crops or desirable plants including alfalfa, barley, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, oats, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants. DO NOT permit spray mists containing GF-2468 to drift onto such plants.
- **DO NOT** apply to crops underseeded with legumes.

# MANDATORY SPRAY DRIFT MANAGEMENT

## **Aerial Applications**

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or courser droplet size (ASABE S572.3).
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- **DO NOT** apply during temperature inversions.

# **Ground Applications**

- User must only apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.3).
- DO NOT apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

# SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

# **Controlling Droplet Size - Ground Boom**

- **Volume** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size - Aircraft**

Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles.
 Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOM HEIGHT - Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

# **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

• Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

# **Crop Rotation Intervals**

The following rotational crops may be planted at the indicated interval following application of GF-2468.

# Crop Rotation Intervals for All States Except Idaho, Oregon, and Washington

Superscripted numbers refer to Crop Specific Rotation Information.

Сгор	Rotation Interval (Months) <sup>1</sup>
wheat, triticale	1
soybean <sup>2</sup>	5
barley, field corn, grasses, millet, oats, popcorn, seed corn, sweet corn, grain sorghum <sup>4</sup> , sunflower <sup>4</sup>	9
alfalfa, camelina, canola, chickpea, cotton <sup>3</sup> , dry bean, pea (dry and succulent), flax, lentil, mustard, peanuts, potato, safflower, sugar beet, sunflower	9
other crops not listed	12

#### **Crop Specific Rotation Information:**

- <sup>1</sup> Minimum number of months that must elapse before planting other crops after application of GF-2468.
- <sup>2</sup> As a rotation crop, soybeans may be planted 3 months following an application of GF-2468 in February or later in the following states: Alabama, Arkansas, Delaware, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Missouri, Mississippi, North Carolina, Nebraska, New Jersey, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, and Virginia. However, to ensure adequate crop safety, avoid planting soybeans prior to April 30 following an application of GF-2468 made before February. All other states not listed require a minimum rotation interval of 5 months after an application of GF-2468.
- <sup>3</sup> As a rotation crop, cotton may be planted 3 months following an application of GF-2468 in February or later in the following states: Alabama, Arkansas, Georgia, Kansas, Kentucky, Louisiana, Missouri, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia. However, to ensure adequate crop safety, avoid planting cotton prior to April 30 following an application of GF-2468 made before February. All other states not listed require a minimum rotation interval of 9 months after an application of GF-2468.
- <sup>4</sup> As a rotation crop, grain sorghum and sunflowers may be planted 3 months following an application of GF-2468 in February or later in the following states: Alabama, Arkansas, Colorado, Delaware, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Missouri, Mississippi, North Carolina, Nebraska, New Jersey, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, and Virginia. However, to ensure adequate crop safety, avoid planting sunflowers and grain sorghum prior to April 30 following an application of GF-2468 made before February. All other states not listed require a minimum rotation interval of 9 months after an application of GF-2468.

# Crop Rotation Intervals for Idaho, Oregon, and Washington

Superscripted numbers refer to Crop Specific Rotation Information.

	Rotation Interval (Months) <sup>1</sup>		
Сгор	Soil pH >6 and Rainfall >16 Inches	Soil pH <6 or Rainfall <16 Inches	
wheat, triticale	1	1	
alfalfa <sup>2</sup>	4	10	
barley, field corn, grasses, millet, oats, popcorn, seed corn, sweet corn, grain sorghum	10	10	
camelina, canola, cotton, dry bean, flax, mustard, pea (dry and succulent), peanut, safflower, soybean, sugar beet, sunflower	10	10	
chickpea <sup>3</sup> , lentil <sup>3</sup> , potato <sup>3</sup>	10	18	
other crops not listed	12	18	

# **Crop Specific Rotation Information:**

- <sup>1</sup> Minimum number of months that must elapse before planting other crops after application of GF-2468.
- <sup>2</sup> Alfalfa for forage may be planted 4 months after application if the soil pH is uniformly 6 or greater AND total rainfall (including irrigation) during the interval is greater than 10 inches. If the soil pH is less than 6 OR total rainfall (including irrigation) is less than 10 inches, then the rotation interval is 10 months.
- <sup>3</sup> Chickpea, lentil, and potato may be planted 10 months after application if the soil pH is uniformly 6 or greater AND total rainfall (including irrigation) during the interval is greater than 16 inches. If the soil pH is less than 6 OR total rainfall (including irrigation) is less than 16 inches, then the rotation interval is 18 months.

**Note:** GF-2468 is degraded primarily by microbial activity and breaks down more rapidly under favorable soil moisture and temperature conditions. Correspondingly, the rate of degradation may be slower under extreme conditions of drought or cold temperatures. When soil moisture conditions are abnormally dry during the interval between an application of GF-2468 and planting the next crop, conduct a field bioassay by planting test strips of the desired rotational crop. Monitor the test strips during germination and emergence for any abnormal growth to determine if the rotational crop can be grown successfully.

# **Mixing Directions**

#### **GF-2468 - Alone**

- 1. Fill clean spray tank with 1/2 of the total amount of water and begin agitation.
- 2. Add the required amount of GF-2468.
- 3. Add the required amount of adjuvant (refer to Surfactants and Adjuvants section).
- 4. Continue agitation while filling the spray tank to the required volume.
- 5. To ensure a uniform spray mixture, continuous agitation is required during application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply mixture immediately after it is prepared.

#### GF-2468 - Tank Mix

If a broader spectrum of weed control is needed, GF-2468 may be tank mixed with labeled rates of other pesticides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Tank Mixing Restrictions**

- **DO NOT** mix with products containing dicamba or amine formulations of 2,4-D or MCPA as these products may reduce grass control provided by GF-2468.
- **DO NOT** tank mix with organophosphate insecticides as these mixtures may result in unacceptable crop injury.
- **DO NOT** exceed specified application rates for respective products or maximum allowable application rates for any active ingredient in the tank mix.

# **Tank Mixing Precautions**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- When applying this product in tank mix combination, follow all applicable use directions, precautions, and limitations on each manufacturer's label.
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

**Tank Mix Compatibility Testing:** Perform a jar test prior to tank mixing to ensure compatibility of GF-2468 and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 30 minutes. If the mixture balls-up or forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination must not be used.

Vigorous, continuous agitation during mixing, filling, and throughout application is required for all tank mixes. Sparger pipe agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing air into the spray mixture.

#### Mixing Order for Tank Mixes:

- 1. Fill the spray tank to 3/4 of the total spray volume required with water and begin agitation.
- 2. Add GF-2468 and agitate for 2 to 3 minutes
- 3. After adding GF-2468, add different formulation types in the following order: (1) dry flowables; (2) wettable powders; (3) aqueous suspensions, flowables, and liquids; (4) emulsifiable concentrates; (5) solutions; and (6) adjuvants. Allow time for complete mixing and dispersion after each addition.
- 4. Finish filling the spray tank. Maintain continuous agitation during mixing and throughout application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. Apply mixture immediately after it is prepared.

If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be resuspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to resuspend than when originally mixed.

#### **Clean-Out Procedures for Spray Equipment**

- 1. Drain any remaining spray mixture from the application equipment.
- 2. Hose down the interior surfaces of the tank while filling the tank 1/2 full of water.
- 3. Add household ammonia at a rate of 1 gallon per 100 gallons of water. Recirculate for 5 minutes and spray out part of this mixture for 5 minutes through the boom. Drain tank.
- 4. Remove all spray nozzles and screens and clean separately.
- 5. If spray equipment will be used for pesticide application to crops sensitive to GF-2468, repeat steps 1 through 3. Thoroughly clean exterior surfaces of spray equipment.

**Note:** Rinsate may be disposed of on site according to label use directions or at an approved waste disposal facility.

# Weeds Controlled (C) or Suppressed (S)

Best results are obtained when grass weeds are treated at the 2-leaf to 2-tiller stage of growth and before broadleaf weeds are larger than 2 inches tall or 2 inches in diameter. Best control is achieved when applications are made to actively growing weeds. Control may be reduced when weeds are exposed to drought or extreme temperatures. GF-2468 will not control known ALS (Group 2) resistant biotypes of labeled weeds.

		Fall	Spring
Common name	Scientific Name	Application	Application
Grass Weeds	l la vala coma icola a tecca	C	C
barley, foxtail	Hordeum jubatum	S	S
barnyardgrass	Echinocloa crus-galli		C
blackgrass	Alopecurus myosuroides Poa bulbosa	C C	C C
bluegrass, bulbous		C	C
brome, downy	Bromus tectorum	C C C	S C
brome, Japanese	Bromus japonicus Bromus diandrus	C	C
brome, ripgut		C	
canarygrass, hood	Phalaris paradoxa Phalaris minor	3	0
canarygrass, littleseed cheat	Bromus secalinus	3	
chess, hairy	Bromus commutatus	S S C C	S S C C
corn, volunteer	Zea mays	C	C
foxtail, green	Setaria viridis		S
			C
foxtail, yellow <sup>4</sup>	Setaria pumila		
oat, wild	Avena fatua	C S	C S
quackgrass	Elymus repens Bromus catharticus	S	S S
rescuegrass		C	C
ryegrass, Italian	Lolium perenne	C	C
windgrass	Apera spica-venti	C	C
Broadleaf Weeds			
bedstraw, catchweed (cleavers)	Galium aparine	S	С
bittercress, hairy	Cardamine hirsuta L.	С	С
buckwheat, wild	Polygonum convolvulus		0 % 0 0 0 0 0 0
burclover, spotted	Medicago arabica	С	С
buttercup, smallflower	Ranunculus abortivus L.	C C	С
canola, volunteer <sup>2</sup>	Brassica napus	C	C
chickweed, common	Stellaria media	Ċ	C
chickweed, mouseear	Cerastium fontanum	C	C
clover, white	Trifolium repens L	C	
coreopsis, plains	Coreopsis tinctoria Nutt.	S	S
evening-primrose, cutleaf	Oenothera laciniata Hill	S	S
falseflax, smallseed <sup>1</sup>	Camelina microcarpa	С	С
fiddleneck, coast	Amsinckia intermedia	C C	C C
flixweed <sup>1</sup>	Descurainia sophia		
geranium, Carolina	Geranium carolinianum L.	С	С
gromwell, corn	Buglossoides arvensis	С	С
hempnettle, common	Galeopsis tetrahit		C
Henbit	Lamium amplexicaule	С	8
lambsquarters, common <sup>3</sup>	Chenopodium album		0 % 0 0 0 0 0
mustard, black	Brassica nigra	С	C
mustard, blue <sup>1</sup>	Chorispora tenella	С	C
mustard, tumble <sup>1</sup>	Sisymbrium altissimum	C C	C
mustard, wild	Sinapis arvensis	C	C
mustard, wormseed <sup>1</sup>	Erysimum cheiranthoides	C	C
pennycress, field <sup>1</sup>	Thlaspi arvense	C	C

		Fall	Spring
Common name	Scientific Name	Application	Application
pepperweed, Virginia	Lepidium virginicum	С	С
pigweed, redroot	Amaranthus retroflexus		С
shepherd's-purse <sup>1</sup>	Capsella bursa-pastoris	С	С
smartweed, annual	Polygonum sp.		С
tansymustard, pinnate <sup>1</sup>	Descurainia pinnata	С	С
thistle, Russian <sup>3</sup>	Salsola tragus		С
vetch, hairy	Vicia villosa Roth		С
wallflower, bushy¹	Erysimum repandum	С	С

<sup>&</sup>lt;sup>1</sup> Control may be reduced when application is made after bolting

# **Weed Resistance Management**

GF-2468, which contains the active ingredient pyroxsulam is a Group 2 herbicide based on the mode of action classification system of the Weed Science Society of America.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small.
- Apply full rates of GF-2468 for the most difficult to control weed in the field at the specified time to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if
  suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of
  target weeds have been reported, use the application rates of this product specified for your local
  conditions. Tank mix products so that there are multiple effective modes of action for each target
  weed.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group 2 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;

<sup>&</sup>lt;sup>2</sup> Including Roundup Ready and Liberty Link canola varieties, but not Clearfield canola varieties.

<sup>&</sup>lt;sup>3</sup> Less than 2 inches tall. For control of lambsquarters over 2 inches tall, tank mix with 0.25 lb ae 2,4-D ester or MCPA ester. For control of Russian thistle over 2 inches tall, tank mix with 0.25 lb ae 2,4-D ester.

<sup>&</sup>lt;sup>4</sup> One to four-leaf stage of growth.

- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum herbicide with other mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 2 herbicides.
- Avoid making more than two sequential applications of GF-2468 and any other Group 2
  herbicides within a single growing season unless mixed with an herbicide with a different mode of
  action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

# **Application Directions**

#### **Application Timing**

Apply GF-2468 postemergence to the main flush of actively growing weeds according to the target weed stage shown in the table entitled "Weeds Controlled (C) or Suppressed (S)." Extreme growing conditions such as drought, temperatures near or below freezing prior to, at, or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth.

Warm, moist growing conditions promote active weed growth and enhance the activity of GF-2468 by allowing maximum foliar uptake and contact activity. Weeds hardened off by cold weather or drought stress may not be adequately controlled or suppressed and re-growth may occur. For best results, ensure thorough spray coverage of target weeds.

If foliage is wet at the time of application, control may be decreased. Applications of GF-2468 are rainfast within 4 hours after application.

#### **Spray Coverage**

Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. **DO NOT** broadcast apply in less than 5 gallons of total spray volume per acre. For best results and to minimize spray drift, apply in a spray volume of 10 gallons or more per acre. As vegetative canopy and weed density increase, increase the spray volume to obtain equivalent weed control. Use only nozzle types and spray equipment designed for herbicide application. To reduce spray drift, follow precautions under Avoiding Injurious Spray Drift.

# **Surfactants and Adjuvants**

When GF-2468 is applied alone, use one of the following surfactants or adjuvants:

- Non-ionic surfactant with at least 80% active ingredient at 0.25% to 0.50% v/v (1 to 2 quarts per 100 gallons of spray solution); for best results under dry or low humidity environments, use a rate of 0.50% v/v. Addition of spray-quality urea ammonium nitrogen fertilizer (28-0-0 to 32-0-0 at 1 to 2 quarts per acre) or ammonium sulfate fertilizer (21-0-0-24 at 1.5 to 3 lb per acre) may be added to non-ionic surfactant to enhance control.
- Crop oil concentrate adjuvant at 1.0 to 1.25% v/v (1 to 1.25 gallons per 100 gallons of spray solution).
- Methylated seed oil adjuvant at 1.0% v/v (1 gallon per 100 gallons of spray solution).

Potential for crop response is increased with the use of oil adjuvants versus non-ionic surfactants. **DO NOT** use oil adjuvants with spray solutions containing nitrogen fertilizer.

**DO NOT** use additives that lower the spray solution below a pH of 6.0.

When an adjuvant is to be used with GF-2468, Corteva Agriscience recommends the use of a Council of Producers & Distributors of Agrotechnology (CPDA) certified adjuvant.

# **Application in Fluid Fertilizer**

GF-2468 may be applied in spray solutions containing liquid nitrogen fertilizer. For best results, use a spray solution composed of no more than 50% liquid nitrogen fertilizer and no more than 30 lb of actual nitrogen per acre. When GF-2468 is applied in spray solutions containing liquid nitrogen fertilizer, use a non-ionic surfactant at a maximum of 0.25% v/v instead of crop oil concentrate or methylated seed oil. Temporary crop injury may result when liquid nitrogen fertilizer is used as the spray carrier. Foliar applied liquid nitrogen fertilizer may cause foliar leaf burn, yellowing, or reduced growth due to the activity of the liquid fertilizer on the crop.

#### Winter Wheat and Triticale

Apply 2 oz of GF-2468 (0.125 lb of active ingredient) per acre in either fall or spring to actively growing winter wheat and triticale from the 3-leaf to jointing stage (Zadoks scale 31) according to the application timings shown in the table entitled Weeds Controlled (C) or Suppressed (S). Treat after the majority of weeds have emerged. Best results are obtained when application is made to weeds that are actively growing.

Occasionally, slight yellowing or height reduction may be observed in the treated crop. These transient symptoms disappear within 14 days with no reduction to yield. **DO NOT** apply to crops suffering from drought, water-logged soils, nutrient deficiency, or exposure to frost or other agronomic factors affecting plant growth. **DO NOT** use on wheat or triticale varieties that are sensitive to ALS herbicides.

An independent liquid ammonium nitrogen fertilizer application made 7 days before or after an application of GF-2468 may result in transient leaf burn or stunting. DO NOT make a liquid fertilizer application during this period unless the risk of crop response is acceptable.

**Tank Mixtures:** GF-2468 may be applied in tank mix combination with labeled rates of other products registered for postemergence application in winter wheat or triticale. See Tank Mixing Precautions under Mixing Directions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Crop-Specific Use Restrictions:**

- **DO NOT** apply more than 2 oz of GF-2468 (0.0164 lb of active ingredient) per acre in a single application.
- DO NOT apply more than 2 oz of GF-2468 (0.0164 lb of active ingredient) per acre per year.
- **DO NOT** apply GF-2468 more than 1 time per year.
- **Preharvest Interval: DO NOT** apply within 60 days of harvest for grain. **DO NOT** cut treated crop for hay within 28 days following application.
- **DO NOT** allow livestock to graze the treated crop within 7 days following application.
- **DO NOT** apply a product containing organophosphates for five days before or five days after an application of GF-2468.

# **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the

extent permitted by law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation, of Remedies.

# Warranty Disclaimer

Corteva Agriscience warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Corteva Agriscience MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

# Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Corteva Agriscience or the seller. Corteva Agriscience will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by Corteva Agriscience. To the extent permitted by law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

#### Limitation of Remedies

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

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

To the extent permitted by law, Corteva Agriscience shall not be liable for losses or damages resulting from handling or use of this product unless Corteva Agriscience is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Corteva Agriscience be liable for consequential, incidental or special damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use, and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Corteva Agriscience or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

™®Trademarks	of Corteva	Agriscience	and its	affiliated	companies
EPA accepted _	_//_				

# Supplemental Labeling

04/13/2022

ACCEPTED

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 00740, 040

62719-643

Corteva Agriscience LLC

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA

# **GF-2468**

[Alternate Brand Name: PowerFlex® HL] EPA Reg. No. 62719-643

# **Crop Rotation Intervals for Idaho, Oregon, and Washington**

For Distribution and Use Only in the States of Idaho, Oregon, and Washington

This supplemental label expires on August 30, 2023, and must not be used or distributed after this date.

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for GF-2468 herbicide before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of GF-2468 according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for GF-2468.

#### **Directions for Use**

Refer to product label for GF-2468 for Use Restrictions, Use Precautions, Mixing Directions, and Application Directions.

The following rotational crops may be planted at the indicated intervals following application of GF-2468.

#### Crop Rotation Intervals for Idaho, Oregon, and Washington

Superscripted numbers refer to Crop Specific Rotation Information.

	Rotation Interval (Months) <sup>1</sup>		
Сгор	Soil pH >6 and Rainfall >16 Inches	Soil pH <6 or Rainfall <16 Inches	
wheat, triticale	1	1	
alfalfa <sup>2</sup>	4	10	
barley, field corn, grasses, millet, oats, popcorn, seed corn, sweet corn, grain sorghum	10	10	
camelina, canola, cotton, dry bean, flax, mustard, pea (dry and succulent), peanut, safflower, soybean, sugar beet, sunflower	10	10	
chickpea <sup>3</sup> , lentil <sup>3</sup> , potato <sup>3</sup>	10	18	
other crops not listed	12	18	

# **Crop Specific Rotation Information:**

<sup>&</sup>lt;sup>1</sup> Minimum number of months that must elapse before planting other crops after application of GF-2468.

- <sup>2</sup> Alfalfa for forage may be planted 4 months after application if the soil pH is uniformly 6 or greater AND total rainfall (including irrigation) during the interval is greater than 10 inches. If the soil pH is less than 6 OR total rainfall (including irrigation) is less than 10 inches, then the rotation interval is 10 months.
- <sup>3</sup> Chickpea, lentil, and potato may be planted 10 months after application if the soil pH is uniformly 6 or greater AND total rainfall (including irrigation) during the interval is greater than 16 inches. If the soil pH is less than 6 OR total rainfall (including irrigation) is less than 16 inches, then the rotation interval is 18 months.

**Note:** GF-2468 is degraded primarily by microbial activity and breaks down more rapidly under favorable soil moisture and temperature conditions. Correspondingly, the rate of degradation may be slower under extreme conditions of drought or cold temperatures. When soil moisture conditions are abnormally dry during the interval between an application of GF-2468 and planting the next crop, conduct a field bioassay by planting test strips of the desired rotational crop. Monitor the test strips during germination and emergence for any abnormal growth to determine if the rotational crop can be grown successfully.

**Note:** This product may contaminate surface water due to runoff of rainwater. Refer to the Environmental Hazards section of the product label attached to the product container for required protective measures.

™®Trademarks of Corteva Agriscience and its affiliated companies R888-003
EPA accepted \_\_/\_/\_
Initial printing