

## OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

May 15, 2025

Karen da Silva priatrack@corteva.com CORTEVA AGRISCIENCE, LLC

Subject: Non-PRIA (Pesticide Registration Improvement Act) Partial Labeling Amendment - Revise

label with corrected active ingredient percentages and minor changes

Product Name: STEADFAST XP

Admin Number: 352-816 EPA Receipt Date: 04/14/2025 Action Case Number: 00652743

Dear Karen da Silva:

The amended labeling 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 terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

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 this 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 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.

The label submitted with the application has been stamped "Accepted Only Indicated Revisions Reviewed" and is enclosed for your records.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have questions, please contact Elizabeth Andrews via email at andrews.elizabeth@epa.gov. Sincerely,

Kable Bo Davis

Kable Bo Davis, Senior Advisor FHB, RD Office of Pesticide Programs (Base label):

NICOSULFURON	GROUP	2	HERBICIDE
RIMSULFURON	GROUP	2	HERBICIDE

# Steadfast® XP

ACCEPTED
ONLY INDICATED

HERBICIDE 05/15/2025

REVISIONS REVIEWED

For use in Field Corn

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

This product is a water-dispersible granule containing 75% active ingredient by weight.

352-816

No label revisions other than those indicated were

Active Ingredient	By Weight	
Nicosulfuron		
2-[[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]aminosulfonyl]-N,N		
-dimethyl-3-pyridinecarboxamide	<del>50</del> <u>30</u> %	
Rimsulfuron		
N((4,6-dimethoxypyrimidin-2-yl) aminocarbonyl)-3-(ethylsulfonyl)		
-2-pyridinesulfonamide	<del>25</del> 15%	
Other Ingredients	<del>25</del> <u>55</u> %	
Total	100%	

## **Keep Out of Reach of Children**

## **CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you **DO NOT** understand this label, find someone to explain it to you in detail.)

## **Precautionary Statements**

**Hazards to Humans and Domestic Animals** 

# **CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any water proof material including butyl rubber, natural rubber, neoprene rubber, or nitrile rubber
- Shoes plus socks

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

## **USER SAFETY RECOMMENDATIONS**

#### **USERS SHOULD:**

 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

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store product in original container only. **DO NOT** contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

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

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):

Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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 tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. DO NOT reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. DO NOT reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides

and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with Steadfast® XP herbicide containing nicosulfuron and rimsulfuron only. **DO NOT** reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: **DO NOT** reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. Refilling Container: Refill this container with Steadfast XP herbicide containing nicosulfuron and rimsulfuron only. DO NOT reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage including cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, DO NOT use the container, contact Corteva Agriscience at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, DO NOT reuse or transport container, contact Corteva Agriscience at the number below for instructions. Disposing of Container: **DO NOT** reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. **DO NOT** burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**DO NOT** transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact Corteva Agriscience at 1-800-992-5994, day or night.

Refer to inside of label booklet for additional precautionary information including First Aid 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

For product information call: 1-800-258-3033	
™®Trademarks of Corteva Agriscience and its affiliated companies	
EPA Reg. No. 352-816	EPA Est. No
Agricultural Chemical: <b>DO NOT</b> ship or store with food, feeds, drugs, or o	clothing.

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

NET CONTENTS\_\_\_\_\_

(Cover/Shipping Label):

NICOSULFURON	GROUP	2	HERBICIDE
RIMSULFURON	GROUP	2	HERBICIDE

# Steadfast® XP

#### **HERBICIDE**

For use in Field Corn

This product is a water-dispersible granule containing 75% active ingredient by weight.

Active Ingredient	By Weight	
Nicosulfuron		
2-[[(4,6-dimethoxypyrimidin-2-yl)aminocarbonyl]aminosulfonyl]-N,N		
-dimethyl-3-pyridinecarboxamide	<del>50</del> <u>30</u> %	
Rimsulfuron		
N((4,6-dimethoxypyrimidin-2-yl) aminocarbonyl)-3-(ethylsulfonyl)		
-2-pyridinesulfonamide	<del>25</del> <u>15</u> %	
Other Ingredients	<del>25</del> <u>55</u> %	
Total	100%	

# Keep Out of Reach of Children **CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you **DO NOT** understand this label, find someone to explain it to you in detail.)

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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. 352-816

EPA Est. No.\_\_\_\_\_

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NET CONTENTS
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(Page 1 through end):

## **FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

## **Precautionary Statements**

**Hazards to Humans and Domestic Animals** 

## **CAUTION**

Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any water proof material including butyl rubber, natural rubber, neoprene rubber, or nitrile rubber
- Shoes plus socks

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

#### **USER SAFETY RECOMMENDATIONS**

#### **USERS SHOULD:**

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

## **ENVIRONMENTAL HAZARDS**

**DO NOT** apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate. **DO NOT** apply where/when conditions could favor runoff

## **Groundwater Advisory**

Nicosulfuron is known to leach through soil into groundwater under certain conditions as a result of label use. Nicosulfuron 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 impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of this product from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### Windblown Soil Particles Advisory

This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affects the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

## 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 area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

#### **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 4 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, including plants, soil, or water, is:

Coveralls

Chemical resistant gloves made of any water proof material including butyl rubber, natural rubber, neoprene rubber, or nitrile rubber

Shoes plus socks

Steadfast® XP® herbicide must be used only in accordance with directions on this label. To the extent consistent with applicable law, Corteva Agriscience will not be responsible for losses or damage resulting from use of this product in any manner not specified by Corteva Agriscience.

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store product in original container only. **DO NOT** contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place.

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

Container Handling: Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds):

Nonrefillable container. DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 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. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. DO NOT reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with Steadfast XP herbicide containing nicosulfuron and rimsulfuron only. DO NOT reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: DO NOT reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. DO NOT burn, unless allowed by state and local ordinances.

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**DO NOT** transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact Corteva Agriscience at 1-800-992-5994, day or night.

## PRODUCT INFORMATION

Steadfast XP herbicide is a water-dispersible granule used at the rate of 1.25 ounces (0.023 lb ai nicosulfuron and 0.012 lb ai rimsulfuron) per acre for selective postemergence grass and broadleaf weed control in field corn.

## 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 Al/A per Year	Last Treatment Preharvest Interval
Field Corn	1.25	0.023 lb ai nicosulfuro n + 0.012 lb ai rimsulfuron	1	1.25	0.023 lb ai nicosulfur on + 0.012 lb ai rimsulfuro n	DO NOT graze or feed forage or stover from treated areas to livestock within 30 days of Steadfast XP application.

**DO NOT** apply to field corn grown for seed, to popcorn or to sweet corn.

**DO NOT** apply aerially in California or New York State.

Injury or loss of desirable trees or vegetation may result from failure to observe the following:

- **DO NOT** apply Steadfast XP or drain or flush application equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contract with their roots.
- **DO NOT** use on lawns, walks, driveways, tennis courts. Prevent drift of spray to desirable plants.
- **DO NOT** contaminate any body of water.

DO NOT apply Steadfast XP through any type of irrigation system

**DO NOT** exceed labeled application rates. **DO NOT** tank mix Steadfast XP with other products that contain the same active ingredients as Steadfast XP (nicosulfuron and rimsulfuron) unless the label of either tank mix partner specifies the maximum rate that may be used.

## **PRECAUTIONS**

Thoroughly clean application equipment immediately after use (See Sprayer Cleanup section of this label).

Prevent drift or spray onto desirable plants.

For all application systems, use 50-mesh or larger strainer screens.

## WEED RESISTANCE MANAGEMENT

Steadfast XP, which contains the active ingredients nicosulfuron and rimsulfuron, 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 sites 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.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of this product for the most difficult to control weed in the field at the specified time (correct weed size) 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 company representative, local retailer, or county extension agent.
- Contact your company representative, crop advisor, or extension agent to find out if suspected
  resistant weeds to these MOAs have been found in your region. DO NOT assume that each listed
  weed is being controlled by multiple sites of action. Products with multiple active ingredients are
  intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by
  only one of the active ingredients in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a site 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;
  - 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 soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 2 herbicides.
- Avoid making more than two applications of this product and any other Group 2 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to- control weeds.
- Incorporate non-chemical weed control practices, including 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, during and after harvest to reduce weed seed production.

## INTEGRATED PEST MANAGEMENT

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

## MANDATORY SPRAY DRIFT MANAGEMENT

**Aerial Applications:** 

- **DO NOT** release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use one-half swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

#### **Ground Boom Applications:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- DO NOT apply when wind speeds exceed 10 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 manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

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

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. 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. When applying aerially to crops, **DO NOT** 

release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.

#### 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.

## **DRIFT CONTROL ADDITIVES**

Using product compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Chemical Producers and Distributors Association (CPDA).

## WHEN TO APPLY

## **TIMING TO CROP STAGE**

Apply Steadfast XP to corn that is up to 20 inches tall and exhibiting up to and including 6 leaf-collars (V6). **DO NOT** apply to corn taller than 20 inches or exhibiting more than 6 leaf collars, whichever is more restrictive. Some State and corn hybrid restrictions apply (see below). Not all Steadfast XP tank mixtures may be applied to corn that is beyond 12" tall. Consult TANK MIX APPLICATIONS for more information.

While Steadfast XP has a wide application window, research has shown best results are obtained when applications are made early postemergence when corn and weeds are small. Target applications to corn that is less than 12" tall for best overall performance.

Apply Steadfast XP to field corn hybrids with a relative maturity (RM) rating of 77 days or more, including "food grade" (yellow dent, hard endosperm), waxy and oil corn. Not all field corn hybrids of less than 77 days RM, not all white corn hybrids nor Hi-Lysine hybrids have been tested for crop safety, nor does Corteva Agriscience have access to all seed company data. Consequently, injury arising from the use of Steadfast XP on these types of corn is the responsibility of the user. Consult with your seed supplier before applying Steadfast XP to any of these corn types. Applications of Steadfast XP to corn hybrids of 77-88 CRM need to be limited to corn that is 12" tall or less than or equal to 5-leaf collars (V5), whichever is most restrictive. In addition, the application of tank mixtures with dicamba-containing herbicides to 77-88 CRM corn must contain no more than 0.125 lb ai dicamba. Seed company publications indicate "Warning," "Crop Response Warning," or "Sensitive" notations for the use of some ALS herbicides on corn hybrids of 77 CRM or higher. As noted in the seed company publications, all sulfonylurea herbicides, including Steadfast XP, must be used with caution on these hybrids. Consult with your local sales representative or the Label Web Site for any additional supplemental labeling information relative to

potential corn hybrid sensitivity to Steadfast XP.

Limit Steadfast XP applications to corn that is up to 12" tall or up to and including 5 leaf collars (V5), whichever is most restrictive, in the states of KS, OK and TX.

#### **TIMING TO WEEDS**

Apply Steadfast XP when grasses are young and actively growing, but before they exceed the sizes listed on this label.

- Applications made to weeds at growth stages greater than those listed below may result in incomplete control. Grass competition due to incomplete control may reduce yields.
- Adequate soil moisture is required for optimum activity. Rainfall within 5 to 7 days after application will enhance Steadfast XP residual activity.

If an activating rainfall or sprinkler irrigation (>0.5 inch) is not received within 5-7 days after application, follow with a cultivation or with a sequential application of Accent Q herbicide, if needed. See CULTIVATION or SEQUENTIAL ACCENT Q APPLICATIONS.

#### **APPLICATION RATE**

Apply Steadfast XP at a rate of 1.25 ounce (0.023 lb nicosulfuron + 0.012 lb rimsulfuron) per acre for season-long control of grass and broadleaf weeds listed below.

#### **WEEDS CONTROLLED**

Grasses	Height or Diameter at Application
Barnyardgrass	4"
Canarygrass	6"
Cereals, volunteer	2"
Crabgrass, large*	1"
Cupgrass, woolly*	3"
Foxtails	
bristly	4"
giant	4"
green	4"
yellow*	4"
Goosegrass	2"
Johnsongrass, seedling or rhizome	8"-12"
Millet, wild proso	4"
Muhly, wirestem	4"*
Panicum, fall & Texas	4"
Quackgrass	8"*
Ryegrass, Italian	4"
Sandbur, field*	2"
Shattercane	6"
Signalgrass, broadleaf	2"
Oats, wild	2"
Witchgrass	4"

<sup>\*</sup>Cultivation or retreatment with Accent Q herbicide may be required. See "For Additional Control of Crabgrass and Later Emerging

#### Grasses."

Broadleaf Weeds	Height or Diameter at Application
Control:	
Amaranth, powell	4"
Burcucumber	4"
Dandelion	8"
Jimsonweed	4"
Morningglory, annual	4"
Mustard, wild	4"
Pigweed, redroot & smooth	4"
Sunflower, common	4"
Suppression:	
Cocklebur, common	4"
Ladysthumb	4"
Lambsquarters, common	4"
Hemp dogbane	4"
Nutsedge, yellow	4"
Smartweed, PA	4"
Thistle, Canada	4"
Velvetleaf	4"
Waterhemp, tall & common	2"

As weeds mature, their sensitivity to Steadfast XP decreases. Grassy weeds growing under stress due to drought or other environmental factors may become mature (more than 3 tillers) before they reach the size listed, in which case their susceptibility to Steadfast XP may be reduced.

## **SPRAY ADJUVANTS**

Applications of Steadfast XP must include either a crop oil concentrate or a nonionic surfactant. In addition, an ammonium nitrogen fertilizer must be used unless specifically prohibited by tank mix partner labeling. Crop oil concentrate plus ammonium nitrogen fertilizer is the preferred adjuvant system for Steadfast XP. Consult local Corteva Agriscience fact sheets, technical bulletins, and service policies prior to using other adjuvant systems. If another herbicide is tank mixed with Steadfast XP, select adjuvants authorized for use with both products. Products must contain only EPA-exempt ingredients (40 CFR 1001).

## Petroleum Crop Oil Concentrate (COC) or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gallon per 100 gallons spray solution) or 2% under arid conditions.
- MSO adjuvants may be used at 0.5% v/v (0.5 gallon per 100 gallons spray solution) if specifically noted on adjuvant product labeling.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

#### **Nonionic Surfactant (NIS)**

- Apply at 0.25% v/v (1 quart per 100 gallons spray solution) or 0.5% under arid conditions.
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12.

#### **Ammonium Nitrogen Fertilizer**

- Use 2 quarts/acre of a high-quality urea ammonium nitrate (UAN), including 28%N or 32%N, or 2 pounds/acre of a spray-grade ammonium sulfate (AMS). Use 4 quarts/acre UAN or 4 pounds/acre AMS under arid conditions.
- **DO NOT** use liquid nitrogen fertilizer as the total carrier solution.

## **Special Adjuvant Types**

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by Corteva Agriscience Product Management. Consult separate company technical bulletins for detailed information before using adjuvant types not specified on this label.

## MIXING INSTRUCTIONS

- 1. Fill the tank 1/4 to 1/3 full of water.
- 2. While agitating, add the required amount of Steadfast XP.
- 3. Continue agitation until the Steadfast XP is fully dispersed, at least 5 minutes.
- 4. Once the Steadfast XP is fully dispersed, maintain agitation and continue filling tank with water. Thoroughly mix Steadfast XP with water before adding any other material.
- 5. As the tank is filling, add the required spray adjuvants (crop oil concentrate, nonionic surfactant, or ammonium nitrogen fertilizer).
- 6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply Steadfast XP spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If Steadfast XP and a tank mix partner are to be applied in multiple loads, pre-slurry the Steadfast XP in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the Steadfast XP.

# WHEN TO APPLY - SEQUENTIAL APPLICATIONS FOLLOWING PREEMERGENCE HERBICIDES

Steadfast XP may be used as a sequential application in a planned postemergence weed control program in corn following a preemergence herbicide.

Apply a reduced rate of a preemergence grass herbicide prior to corn emergence and then follow with a postemergence application of Steadfast XP. Apply preemergence products including Keystone® NXT, Keystone® LA NXT, Cinch ATZ, Cinch ATZ Lite, Resicore®, SureStart® II, Surpass® NXT and other preapplied corn herbicides and follow with a sequential postemergence application of Steadfast XP. Refer to WHEN TO APPLY - POSTEMERGENCE and ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY sections for complete application information and precautions. Refer to the preemergence grass herbicide label for use restrictions, application information, rotational crop guidelines, and cautionary statements prior to applying Steadfast XP.

**DO NOT** apply Steadfast XP to corn that exhibits herbicide injury from previous applications made to the current or preceding crop.

#### TANK MIX APPLICATIONS

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.

Application of Steadfast XP tank mixtures containing atrazine and/or dicamba (in some states) are limited

to corn that is up to 12" tall or up to and including 5 leaf collars (V5), whichever is most restrictive. See TANK MIXTURES WITH DICAMBA-BASED PRODUCTS for additional information.

#### For Additional Control of Broadleaf Weeds

Steadfast XP may be tank mixed with other herbicides for additional control of broadleaf weeds unless that mixture is specifically prohibited by the Steadfast XP label or the tank-mix partner label. See the tank mix partner label for weeds controlled, precautions, use restrictions and crop rotation information.

# ADDITIONAL DIRECTIONS AND/OR DIRECTIONS FOR SPECIFIC WEED PROBLEMS

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 Mixtures with Atrazine**

Steadfast XP may be tank mixed with 0.25 - 2 pounds a.i. atrazine\* for additional control of many broadleaf weeds, including:

Weed height at application	
Sicklepod	1 - 2 inches
Prickly sida	1 - 2 inches
Wild Radish	6 - 12 inches
Cutleaf evening primrose	4 - 6 inches
Florida pusley	1 - 2 inches

<sup>\*</sup>For best results add atrazine 4L OR atrazine 90DF following the product label specifications. Products containing atrazine are restricted use products.

Steadfast XP + atrazine tank mix may result in reduced control of grasses (antagonism) if applied to grasses under low moisture stress or to grasses exceeding the maximum labeled height. Before applying Steadfast XP + atrazine tank mix, refer to the atrazine product label for information regarding the maximum amount of atrazine that may be applied in a year.

## **Tank Mixtures with Mesotrione**

Steadfast XP may be tank mixed with mesotrione to improve control of the weeds listed below. **DO NOT** use MSO adjuvants when tank mixing Steadfast XP with mesotrione. Use a petroleum-based crop oil concentrate + an ammonium nitrogen fertilizer.

Weed Species
Cocklebur
Dandelion
Jimsonweed
Kochia
Lambsquarters,
common
Morningglory,
annual
Mustard, wild
Nightshade,
black
Nightshade,

eastern black
Pigweed,
palmer
Pigweed,
redroot
Ragweed,
common
Ragweed, giant
Smartweed,
ladysthumb
Smartweed,
Pennsylvania
Sunflower,
common
Velvetleaf
Waterhemp,tall
& common

## **Tank Mixtures with Dicamba-based products**

In situations where the use of crop oil concentrate with growth regulator herbicides is not desirable (e.g. extremely cold weather), Steadfast XP may be tank mixed with dicamba + a nonionic surfactant at 0.25% v/v (1 quart/100 gallons spray solution) in place of crop oil concentrate, but overall weed control may be reduced.

Limit tank mixture applications of Steadfast XP with herbicides containing dicamba to corn that is up to 12" tall or up to and including 5 leaf collars (V5), whichever is most restrictive, except for the states east of the line formed by the western borders of MI, IN, KY, TN, and MS, and except where noted in local Corteva Agriscience Technical Bulletins. In these states, the upper corn size limits are 20" tall or up to and including 6 leaf collars, whichever is most restrictive.

## Tank Mixtures with Prosulfuron + Primisulfuron-methyl

Steadfast XP may be tank mixed with 0.5 ounces (0.004 lb ai prosulfuron + 0.013 lb ai primisulfuron-methyl) of "Spirit" herbicide for additional control of velvetleaf, common and giant ragweed, lambsquarters, ivyleaf morningglory, Pennsylvania smartweed, and sunflower. Applications must be made to emerged field corn before the corn is 12" tall or is exhibiting 6 leaf collars, whichever is most restrictive.

#### For Additional Control of Crabgrass and Later Emerging Grasses

Steadfast XP may be tank mixed with full or reduced rates of preemergence grass herbicides labeled for early postemergence application to field corn for increased residual activity of later-emerging flushes of grasses including smooth and large crabgrass. Application must be made before the crabgrass emerges and before other grass weeds on the Steadfast XP label exceed their labeled sizes.

## For Additional Control of Broadleaf Weeds

Steadfast XP may be tank mixed with 0.5 to 0.75 fluid ounces per acre of topramezone (2.8 lb ai per gallon) plus atrazine at 0.375 to 1.5 pounds active per acre for improved control of several broadleaf weeds including waterhemp, common ragweed, common lambsquarters, and velvetleaf. When applying mixtures of Steadfast XP plus topramezone at 0.5 fluid ounces per acre, the use of methylated seed oil is advised. Refer to the topramezone product label for additional information regarding application timing, tank mixtures, adjuvants, and rotational crops.

The use of a nonionic surfactant is advised in place of crop oil concentrate for tank mixtures with preemergence grass herbicides where applications are made early postemergence to small weeds.

When tank mixing Steadfast XP with preemergence herbicides that restrict the use of ammonium nitrogen fertilizer adjuvants and applications are made early-postemergence to small weeds, follow restrictions on the tank mix partner label and/or omit the fertilizer adjuvants.

When tank mixing Steadfast XP with emulsifiable concentrate (EC) formulated preemergence grass herbicides, **DO NOT** add mesotrione herbicide to the tank mixture.

When other formulations of preemergence grass herbicides including CINCH® ATZ or CINCH® ATZ Lite are tank mixed with Steadfast XP + mesotrione, limit preemergence herbicide rates to no more than 2/3x full preemergence rates, always add nonionic surfactant in place of crop oil concentrate, and limit broadleaf weed sizes to less than or equal to 4" tall.

Tank mixes of Steadfast XP and preemergence grass herbicides must be broadcast applied postemergence to field corn before the crop exceeds the heights listed on the preemergence grass herbicide label. Refer to WHEN TO APPLY-POSTEMERGENCE and the preemergence grass herbicide label for complete postemergence application information, rates, and restrictions.

#### Tank mixtures with Insecticides

Steadfast XP herbicide may be tank mixed with pyrethroid or carbamate insecticides including LANNATE® insecticides.

To avoid crop injury or antagonism, apply the products indicated below at least seven days before or three days after the application of Steadfast XP.

**DO NOT** tank mix Steadfast XP with bentazon or severe crop injury may occur.

**DO NOT** tank mix Steadfast XP with 2,4-D-containing products as severe grass control antagonism may occur.

**DO NOT** tank mix Steadfast XP with foliar-applied organophosphate insecticides including chlorpyrifos, malathion, etc., as severe crop injury may occur.

**DO NOT** tank mix Steadfast XP with other acetolactate synthase (ALS) inhibiting herbicides unless the mixture is specified on Steadfast XP labels or fact sheets, as severe crop injury may occur.

Other than the exceptions noted, and in addition to the tank mix partners and rates indicated above, Steadfast XP may be tank mixed or followed with sequential applications of other products registered for use in field corn. Steadfast XP may be applied in tank mix combinations with full or reduced rates of other products provided:

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

## **Tank Mixing Precautions:**

- Weed control and crop response with tank mixtures not specified in this label are the responsibility of the user and manufacturer of the tank mix product.
- Read and follow all applicable use directions, precautions, and limitations specified on the respective product labels and fact sheets.
- A corn plant's predisposition to develop fused tissue emerging from the whorl (rattail) after the V11 stage may increase when a product containing dicamba is applied to small corn under early stressful conditions. Be aware of this when applying tank mixes with dicamba to small corn (V3 stage or

smaller) under stressful conditions. See ENVIRONMENTAL CONDITIONS for a description of these stressful conditions.

#### TANK MIX COMPATIBILITY TESTING

Perform a jar test prior to tank mixing to ensure compatibility of Steadfast XP and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, gels, oily film or layers, or other precipitates, it is not compatible, and the tank mix combination must not be used.

### SEQUENTIAL APPLICATIONS WITH ACCENT Q

Apply Accent® Q herbicide 14 or more days after Steadfast XP applications to control grasses that may emerge later in the year. Refer to the Accent Q label for grass species controlled, proper size of weeds, rates, corn sizes, and other information. When following a Steadfast XP application, **DO NOT** use more than 0.66 oz (0.031 lb ai) Accent Q per acre.

A sequential application of Accent Q will affect crop rotation intervals to certain sensitive crops, including sugarbeets. For maximum crop rotation flexibility, consult the CROP ROTATION section before applying Accent Q to fields previously treated with Steadfast XP.

#### **CULTIVATION**

A timely cultivation may be necessary to control suppressed weeds, or weeds that emerge after an application of Steadfast XP in the absence of an activating rainfall.

Optimum timing for cultivation is 7–14 days after Steadfast XP application or upon seeing the establishment of new weeds.

## **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

Steadfast XP provides best results when applied to young, actively growing weeds. Applications made during warm, moist conditions (70°F or more) and adequate soil moisture both before and after application maximizes performance.

The degree and duration of control depend on spray coverage, activating rainfall, weed spectrum, weed size, growing conditions before and after treatment, soil moisture, and adjuvant selection.

Adequate soil moisture is required for optimum activity. Rainfall within 5-7 days will enhance Steadfast XP residual activity. A timely cultivation may be required for maximum weed control without an activating rain.

Steadfast XP is rainfast in 4 hours.

Treating weeds that exceed maximum label height or that are under stress may result in incomplete control. Poor weed control or crop injury may result from applications made to plants under stress from:

- abnormally hot or cold weather
- environmental conditions including drought, water-saturated soils, hail damage, or frost
- disease, insect, or nematode injury
- prior herbicide, or carryover from a previous year's herbicide application

Severe stress from conditions immediately following application may also result in crop injury or poor weed control. Stress affects all weeds, but especially weeds including woolly cupgrass, green and yellow foxtail, and wild proso millet.

If the corn or grass weeds are under stress, delay application until stress passes and both weeds and corn resume active growth.

Apply Steadfast XP when minimum nighttime temperatures are above 40°F and the maximum daytime temperatures are below 92°F to maximize performance and minimize the potential for crop injury.

Applications made during or immediately following periods of large day/night temperature fluctuations or where daytime temperatures **DO NOT** exceed 50°F may decrease weed control and increase the potential for crop injury.

Steadfast XP rapidly inhibits the growth of susceptible weeds, reducing weed competition within as little as 6 hours after application. Susceptible plants are controlled in 7–21 days.

Ground application of Steadfast XP to dry, dusty fields may reduce weed control in wheel track areas.

#### SOIL INSECTICIDE INTERACTION INFORMATION

Before using Steadfast XP, ensure that it is compatible with any other insecticides previously applied to the corn crop.

Steadfast XP may interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application method, and soil type.

Steadfast XP may be applied to corn previously treated with chlorethoxyfos, chlorethoxyfos + bifenthrin, tebupirimphos + cyfluthrin, tefluthrin insecticides or non- organophosphate (OP) soil insecticides regardless of soil type.

- **DO NOT** APPLY Steadfast XP to corn previously treated with terbufos.
- Applications of Steadfast XP to corn previously treated with chlorpyrifos or phorate may cause unacceptable crop injury, especially on soils of less than 4% organic matter.

#### **CROP ROTATION**

Rotational crops vary in their response to low concentrations of Steadfast XP remaining in the soil. Steadfast XP dissipates rapidly in warm, acidic, microbiologically active soils.

The amount of Steadfast XP which may be present in the soil depends on soil pH and organic matter content, elapsed time since application, crop production practices, and environmental factors.

Injury to rotational crops may occur in high-pH, cold soils if dry weather prevails between application and rotational crop planting.

For fields treated with sequential applications of Steadfast XP and Accent Q herbicide, consult the crop rotation intervals listed on the Accent and Steadfast XP labels. Use the most restrictive recrop interval from either label.

The following rotational intervals must be observed when using Steadfast XP:

#### STEADFAST XP ROTATIONAL CROP GUIDELINE - 1

No soil pH restrictions		
Crop Rotational	Interval in Months	
Corn (field)	Anytime	
Corn (pop, sweet, seed)*	10	

Soybeans	0.5 (15 days)	
Soybeans with BOLT™ technology	Anytime	
Cereals, spring (barley, oats, rye, wheat)	8	
Cereals, winter (barley, oats, rye, wheat)	4	
Canola**	10	
Cotton	10	
Dry Beans, Snap Beans	10	
Alfalfa**†	10	
Flax**	10	
Red Clover**	10	
Peas	10	
Potato**	10	
Sunflower**	10	
Other Crops	See Rotational Crop	
	Guideline 2	

<sup>\*</sup> Except the sweet corn varieties "Merit", "Carnival", and "Sweet Success", for which the minimum time interval is 15 months.

#### STEADFAST XP ROTATIONAL CROP GUIDELINE - 2

Crops With Soil pH Restrictions				
		Rotational Interval in Months		
Crop	Soil pH - < 6.5	6.5 - 7.5	> 7.5	
Sorghum	10	10	18*	
Sugarbeets***	10	18**	18	
All other crops	10	18	18	

<sup>\*</sup> Except in Texas and Oklahoma east of Highway 281, where the rotational interval is 10 months, regardless of pH.

## **APPLICATION INFORMATION**

#### **GROUND APPLICATION**

## **Broadcast Application**

Use a minimum of 15 gallons of water per acre (GPA) to ensure thorough coverage of the weeds and the best performance. Use a minimum of 10 GPA for light, scattered stands of weeds

Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl. Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

## **Band Application**

For band applications, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator to not exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle type (flat fans), orientation, distance of nozzles from the crop and weeds, spray volumes, calibration and spray pressure.

<sup>\*\*</sup>Rotational intervals need to be extended to 18 months if drought conditions prevail after application and before the rotational crop is planted, unless sprinkler irrigation has been applied and totals greater than 15" during the growing season.

<sup>†</sup> On sprinkler irrigated fields in Idaho, Utah, and Northern Nevada it is best to use deep fall tillage including plowing prior to planting alfalfa. Product degradation may be less on furrow irrigated soils and may result in some crop injury.

<sup>\*\*</sup> Except on irrigated sites in Colorado, Wyoming, Nebraska, Texas, or in Minnesota east and south of the Red River Valley, Michigan, and Ohio, where precipitation and/or irrigation following application must exceed 25" prior to planting beets, where the interval is 10 months on soils with pH < 7.5. In the States of Colorado, Wyoming, and Nebraska, temporary crop response, stunting and/or crop injury may occur if soil pH is > 7.5, or precipitation and/or irrigation following application is less than 25" prior to planting sugarbeets.

<sup>\*\*\*</sup>In North Dakota and northwest Minnesota, the cumulative precipitation and/or irrigation following in the 18 months following application must exceed 28" in order to rotate to sugarbeets.

## **AERIAL APPLICATION**

Aerial application is not permitted in New York State or California.

Use nozzle types and arrangements that will provide optimum spray distribution and maximum coverage at a minimum of 5 GPA.

## SPRAYER PREPARATION/CLEANUP

It is important that spray equipment is clean and free of previous pesticide deposits before using Steadfast XP and then properly cleaned out following application. Clean all application equipment before applying Steadfast XP. Follow the cleanup procedures specified on the label of the product previously sprayed. If no cleanup procedure is provided, use the procedure that follows. Immediately following applications of Steadfast XP, thoroughly clean all mixing and spray equipment to avoid subsequent crop injury.

#### Note:

- When cleaning spray equipment before applying Steadfast XP, read and follow label directions for proper rinsate disposal of the product previously sprayed.
- Steam cleaning of aerial spray tanks will help to dislodge any visible pesticide deposits.
- When spraying or mixing equipment will be used over an extended period to apply multiple loads of Steadfast XP, partially fill the tank with fresh water at the end of each day of spraying, flush the boom and hoses, and allow to sit overnight.

#### **Cleanup Procedure**

- 1. Drain the tank and thoroughly hose down the interior surfaces. Flush the tank, hoses, and boom with clean water for a minimum of 5 min.
- 2. Partially fill the tank with clean water and add one gallon of household ammonia\* (containing 3% active) for every 100 gallons of water. Finish filling the tank with water, then flush the cleaning solution through the hoses, boom, and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 min. Again, flush the hoses, boom, and nozzles with the cleaning solution, then drain the tank.
- 3. Repeat Step 2.
- 4. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
- 5. Thoroughly rinse the tank with clean water for a minimum of 5 min, flushing the water through the hoses and boom.
- \* Equivalent amounts of an alternate strength ammonia solution or a tank cleaner may be used.

USEPA REGISTERED PRODUCTS MENTIONED IN THIS LABEL FOR USE IN TANK MIXTURES OR OTHER REASONS				
PRODUCT	ACTIVE INGREDIENT(S)	EPA REGISTRATION		
<b>BRAND NAME</b>		NUMBER		
Accent® Q	nicosulfuron	352-773		
Cinch® ATZ Lite	atrazine + S-metolachlor + atrazine related compounds	352-623		
Cinch® ATZ	atrazine + S-metolachlor + atrazine related compounds	352-624		
Keystone® NXT	acetochlor + atrazine	62719-671		
Keystone® LA NXT	acetochlor + atrazine	62719-670		
Resicore <sup>®</sup>	acetochlor + clopyralid + mesotrione	62719-693		
Spirit™	primisulfuron-methyl + prosulfuron	100-911		
SureStart® II	Acetochlor + clopyralid + flumetsulam	62719-679		
Surpass <sup>®</sup> NXT	acetochlor	62719-672		

<sup>&</sup>quot;Spirit<sup>TM</sup>" is a trademark of Syngenta Crop Protection IncGowan Company...

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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 consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

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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 for use, subject to the inherent risks set forth below. To the extent permitted by consistent with applicable 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.

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It is impossible to eliminate all risks associated with use of this product. Plant 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 byconsistent with applicable law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

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

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For product information call: 1-800-258-3033

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