



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

November 12, 2025

Terri Moss  
US Regulatory Specialist  
Corteva Agriscience, LLC  
9330 Zionsville Road  
Indianapolis, IN 46268

Subject: Label Amendment - Registration Review Mitigation for Pyrethrin-sodium  
Product Name: Staple LX  
EPA Registration Number: 352-613  
Case Number: 477535  
Application Date: October 7, 2019, and November 4, 2025

Dear Terri Moss:

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

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. 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 Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. 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.

If you have any questions about this letter, please contact Concepción Rodríguez by phone at 202-566-0820, or via email at [rodriguez.concepcion@epa.gov](mailto:rodriguez.concepcion@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Julie R. Javier". The signature is fluid and cursive, with the first name "Julie" being the most prominent.

Julie Javier, Team Leader  
Risk Mitigation and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

ENCLOSURE: Stamped label

(Base label):

PYRITHIOBAC-SODIUM	GROUP	2	HERBICIDE
--------------------	-------	---	-----------

**Staple® LX****HERBICIDE****[Alternate Brand Name: DuPont Staple® LX]**

**For Use on Cotton in the States of AL, AR, AZ, CA, FL, GA, KS, LA, MO, MS, NC, NM, OK, PR, SC, TN, TX, & VA.**

Active Ingredient

Pyrithiobac sodium

Sodium 2-chloro-6-[(4,6-dimethoxypyrimidin- 2-yl)thio]benzoate

33.6%

Other Ingredients

66.4%

TOTAL

100.0%

Equivalent to 3.2 lb ai per gal

**Keep Out of Reach of Children****CAUTION****PRECAUCIÓN****ACCEPTED**

Nov 12, 2025

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 352-613

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****Personal Protective Equipment (PPE)****Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants.
- 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.

**Engineering Control Statement**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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 before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside.
- Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
- As soon as possible, wash thoroughly and change into clean clothing.

**First Aid**

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 medical emergencies involving this product.

**Environmental Hazards**

This product is highly toxic to nontarget plants adjacent to area of application. Do not apply this product or allow it to drift to areas where endangered or desired plant species exist.

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.

**NON-TARGET ORGANISM ADVISORY STATEMENT:** 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 directions intended to minimize spray drift.

[Note to Reviewer: The referral statement below is optional. Please also note that this Note to Reviewer appearing within brackets will not appear on the final printed label.]

Refer to accompanying labeling for additional precautions, complete Directions for Use, and Storage and Disposal.

**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.

**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:** Do not contaminate water, food, or feed by 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 Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons):**

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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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 Rigid Plastic and Metal Containers (Capacity Greater Than 5 Gallons):**

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 Rigid 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 puncture and dispose of in a sanitary landfill, or by incineration. 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.

**All Refillable Containers:** Refillable container. Refilling Container: Refill this container with Staple LX containing pyriithobac sodium 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 such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use 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 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.

[Note to Reviewer: The referral statements below are optional. Please also note that this Note to Reviewer appearing within brackets will not appear on the final printed label.]

See back panel and attached booklet for Precautionary Statements, complete Directions for Use, and Storage and Disposal.

Refer to back panel for First Aid and additional precautionary statements.

Do not transport if 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 label booklet for 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. 352-613

EPA Est. \_\_\_\_\_

<sup>TM</sup>®Trademarks of Corteva Agriscience and its affiliated companies

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

**NET \_\_\_\_**



(Cover/shipping container)

PYRITHIOBAC-SODIUM	GROUP	2	HERBICIDE
--------------------	-------	---	-----------

**Staple® LX****HERBICIDE****[Alternate Brand Name: DuPont Staple® LX]****For Use on Cotton in the States of AL, AR, AZ, CA, FL, GA, KS, LA, MO, MS, NC, NM, OK, PR, SC, TN, TX, & VA.**

Active Ingredient	
Pyrithiobac sodium	
Sodium 2-chloro-6-[(4,6-dimethoxypyrimidin- 2-yl)thio]benzoate	33.6%
Other Ingredients	66.4%
TOTAL	100.0%

Equivalent to 3.2 lb ai per gal

**Keep Out of Reach of Children****CAUTION****PRECAUCIÓN**

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.)

**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.

[Note to Reviewer: The referral statements below are optional. Please also note that this Note to Reviewer appearing within brackets will not appear on the final printed label.]

See back panel and attached booklet for Precautionary Statements, complete Directions for Use, and Storage and Disposal.

Refer to back panel for First Aid and additional precautionary statements.

**Refer to label booklet for 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. 352-613

EPA Est. \_\_\_\_\_

™®Trademarks of Corteva Agriscience and its affiliated companies

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

**NET** \_\_\_\_\_



[Page 1 through end]

---

## Precautionary Statements

---

### Hazards to Humans and Domestic Animals

# CAUTION

## PRECAUCIÓN

### Personal Protective Equipment (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- 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.

### Engineering Control Statement

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in 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 before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside.
- Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product.
- As soon as possible, wash thoroughly and change into clean clothing.

### First Aid

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 medical emergencies involving this product.

### Environmental Hazards

This product is highly toxic to nontarget plants adjacent to area of application. Do not apply this product or allow it to drift to areas where endangered or desired plant species exist.

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.

**NON-TARGET ORGANISM ADVISORY STATEMENT:** 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 directions intended to minimize spray drift.

[Note to Reviewer: The referral statement below is optional. Please also note that this Note to Reviewer appearing within brackets will not appear on the final printed label.]

Refer to accompanying labeling for additional precautions, complete Directions for Use, and Storage and Disposal.

---

## 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 in your State responsible for pesticide regulation.

Staple® LX must be used only in accordance with the directions on this label, in separately issued labeling, exemptions under FIFRA or as otherwise permitted by FIFRA. Always read the entire label including the Limitation of Warranty and Liability.

### Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Shoes and socks
- Waterproof gloves.

### 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:** Do not contaminate water, food, or feed by 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 Rigid Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons):**

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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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 Rigid Plastic and Metal Containers (Capacity Greater Than 5 Gallons):** 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 Rigid 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 puncture and dispose of in a sanitary landfill, or by incineration. 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.

**All Refillable Containers:** Refillable container. Refilling Container: Refill this container with Staple LX containing pyriithobac sodium 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 such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use 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 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

Staple LX may be applied preemergence (except in California), postemergence or post-directed to cotton and weeds by ground application equipment. Staple LX may also be applied postemergence to cotton and weeds by aerial equipment (except in Arizona and California).

If Staple LX is used in a tank mixture with other herbicides, read and follow all use instructions, warnings and precautions on companion herbicide labels.

## Biological Activity

Staple LX is absorbed by weed foliage following application. Thorough coverage of target weed species, including the weed terminals or growing points, is required to obtain best results. When using a banded spray application, the band spray area must be of sufficient width to ensure thorough coverage of target weeds.

Growth of susceptible weeds is rapidly inhibited. Growing points and leaves of susceptible weeds appear yellow in 5-10 days. Death of leaf tissue and growing points will follow in some species, while others remain green but stunted and non-competitive. Susceptible weeds are controlled in 14-28 days.

Do not apply Staple LX on any crops other than cotton. Most crops other than cotton are sensitive to Staple LX. All direct and indirect contact (such as drift) to crops other than cotton or land not scheduled to be planted to cotton in the current growing season must be avoided.

## Use Restrictions

- Do not apply preemergence in California.
- Do not exceed 2.1 fl oz product per acre in a preemergence application.
- Do not make more than one preemergence application per year.
- Do not exceed 3.8 fl oz product per acre in a single postemergence application.
- Allow a minimum of 7 days between sequential applications.
- Do not make more than 3 application per acre per year including preemergence and postemergence applications.
- Do not apply more than 5.1 fl oz product (0.125 lb ai) per acre per year.
- Do not apply this product through any type of irrigation system.
- Do not apply to irrigated land where tail water will be used to irrigate crops other than cotton.
- Do not apply within 60 days of harvest.
- In West Texas (broadly defined as West of Highway 83), do not apply more than 3.2 fluid ounces total per acre per year, except where continuous cotton is grown, do not apply more than 5.1 fluid ounces total per acre per year.
- In New Mexico and W. Texas (broadly defined as West of Highway 83) on sand or loamy sand soil types with less than 1% OM, confine in-season applications of Staple LX to a band of no more than one-third the row width. If replanting back to cotton is necessary, replant outside the original treated band.

## Tank Mix Restrictions

Do not tank mix Staple LX with metolachlor or acetochlor herbicides as a postemergence treatment over the top of cotton as crop injury may result.

Do not tank mix Staple LX with malathion-containing insecticides as crop injury may result. To avoid crop injury, apply malathion-containing insecticides at least 24 hours before or after application of Staple LX.

## Tank Mix Precautions

This product can be mixed with pesticide products labeled for use on cotton in accordance with the most restrictive of label limitations. Read all label precautions for tank mix partners prior to use. Follow all manufacturers label instructions for the companion product. If these instructions conflict with this label, do not tank mix with Staple LX.

Since formulations may be changed and new ones introduced, it is suggested that users premix a small quantity of a desired tank mix and observe for possible adverse changes (settling out, flocculation, etc.). Avoid mixtures of several materials and very concentrated spray mixtures.

## **Pima Cotton Precaution**

Foliar injury to Pima cotton varieties from postemergence applications of Staple LX can be more severe than that occasionally observed on upland cotton varieties (see NOTE: under POSTEMERGENCE USE section of label). Any of the plant stress conditions mentioned in the POSTEMERGENCE USE paragraph may further increase the severity of the injury to Pima varieties. Consequently, user is responsible for any crop injury arising from the use of Staple LX on Pima cotton varieties.

## **Weed Resistance Management**

For resistance management, Staple LX is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to Staple LX and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of Staple LX or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact a company representative at 1-800-258-3033.

## **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.

## Application Information

### **MANDATORY SPRAY DRIFT MANAGEMENT**

#### **Aerial Applications:**

- Do not release spray at a height greater than 10 feet above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ANSI/ASABE S641 May 2018) for applications prior to the emergence of crops and target weeds.
- Applicators are required to use a medium or coarser droplet size (ANSI/ASABE S641 May 2018) for all other applications.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 miles per hour 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 Boom 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 coarse or coarser droplet size (ANSI/ASAE S572.3 Feb 2020) for application prior to emergence of crops and target weeds.
- Applicators are required to use a medium or coarser droplet size (ANSI/ASAE S572.3 Feb 2020) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **Boomless Ground Applications:**

- Applicators are required to use coarse or coarser droplet size (ANSI/ASAE S572.3 Feb 2020) for applications prior to the emergence of crops and target weeds.
- Applicators are required to use a medium or coarser droplet size (ANSI/ASAE 572.3 Feb 2020) for all other applications.
- 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 manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **BOOMLESS GROUND APPLICATIONS**

Setting nozzles at the lowest effective height will help reduce the potential for spray drift.

#### **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 application 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 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.

#### **SENSITIVE AREAS**

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effect of 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).

## Environmental Conditions for Optimum Performance

**Weather:** Conditions which are conducive to healthy, actively growing weeds optimize Staple LX postemergence weed control performance. Ideal conditions include warm soil temperatures (70° F or more) and adequate soil moisture before, during and immediately after application.

**Rainfastness:** Rainfall immediately after treatment may wash Staple LX off the weed foliage and result in reduced weed control. A minimum of 4 hours is needed to allow Staple LX to be absorbed by weed foliage.

## Spray Volumes

**Ground Application** - Apply uniformly by ground with a properly calibrated low pressure (20-40 psi) stabilized boom or cultivator mounted sprayer with appropriate nozzles for the intended application method. Use a minimum of 10 gal. water per acre. Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 15-20 gal. per acre.

**Aerial Application (except Arizona and California)** - Use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at a minimum of 3 GPA. Do not apply during inversion conditions, when winds are gusty, or when other conditions will favor poor coverage and/or drift.

## Sequential Applications

Broadleaf weeds may have more than one flush of emerging seedlings. Also, regrowth of treated annual weeds may occur due to application being made to weeds under stress from adverse growing conditions. To control weeds under these conditions, a sequential application of Staple LX may be necessary.

If a respray of treated annual weeds is necessary, allow the weeds to begin to regrow prior to making a second application of Staple LX.

When using Staple LX in sequential treatment program, allow a minimum of 7 days between applications.

## PREEMERGENCE USE (Not labeled for preemergence use in California)

Staple LX may be applied preemergence in all cotton varieties, including those containing traits for specific herbicide tolerances, to aid in the control of many problem weeds.

Staple LX is absorbed by weed roots following a preemergence application. Susceptible weeds may germinate and emerge, but growth is rapidly inhibited. Death of leaf tissue and growing points will follow in some species while others remain green but stunted and non-competitive.

Preemergence applications of Staple LX require rainfall or sprinkler irrigation to activate the herbicide. Degree and duration of weed control depend on rate used, weed spectrum, growing conditions at and following time of treatment, soil texture, organic matter, soil moisture at the time of treatment, and precipitation following treatment.

The amount of rainfall or overhead irrigation required to activate Staple LX preemergence treatments depends on the amount of soil moisture available when rainfall is received. Several rainfall or irrigation events of 0.25 inch or less are not as effective as one rainfall or supplemental irrigation of 0.5-1 inch.

**Note:** Temporary leaf yellowing and/or stunting may occur following a preemergence treatment. Plant stresses from seedling diseases, blowing sand (sand blasting), cool soil temperatures (60° F or less), thrips injury or excessive soil moisture may increase the sensitivity of cotton to injury from preemergence treatments of Staple LX.

### Preemergence Use Restrictions

- Do not use on cotton planted in furrows.
- Do not use on soils with less than 0.5% organic matter (OM).
- Do not use on coarse soils such as sands or loamy sands.
- Do not apply more than one preemergence application per year.
- Do not apply Staple LX preemergence by aerial application.

### Weeds Controlled or Suppressed

Staple LX may be applied preemergence for the CONTROL of carpetweed, horse purslane, marestail, pigweed (redroot, smooth), prickly sida, spotted spurge, spurred anoda & velvetleaf, and SUPPRESSION of annual morningglory (cypressvine, entireleaf, ivyleaf, pitted, purple, red/scarlet, sharppod/cotton, small flower, threelobe, woolly), Florida pusley, lambsquarters, smartweed (ladysthumb, Pennsylvania), jimsonweed, coffee senna, palmer pigweed, lanceleaf sage, barnyardgrass, broadleaf signalgrass, goosegrass, fall panicum, giant foxtail, seedling johnsongrass & large crabgrass.

### Application Rates

Staple LX may be applied preemergence at the rates of 1.3 - 2.1 fl oz product/A. Use higher rates of Staple LX for harder to control weeds and/or in fields where high weed infestation levels are known to occur.

All rates are broadcast. Use proportionately less for band application.

### Preemergence Combinations

For improved control of weeds such as prairie sunflower, lanceleaf sage and annual morningglory (entireleaf, ivyleaf, pitted, red morningglory, sharppod), Staple LX may be applied preemergence in combination with diuron. See **TANK MIX RESTRICTIONS** and **TANK MIX PRECAUTIONS** for additional information.

#### Staple LX + Diuron

**Medium Soils** (sandy loam, loam, silt loam, silt):

- Apply Staple LX 1.3 - 2.1 fluid ounces per acre plus diuron 0.5 to 1 pound a.i. per acre.

**Fine Soils** (sandy clay loam, clay loam, silty clay loam, sandy clay, clay):

- Apply Staple LX 1.3 - 2.1 fluid ounces per acre plus diuron 0.75 to 1.0 pound a.i. per acre.
- Do not use on soils with less than 1% organic matter when tank mixing with diuron.
- Do not use soil applied organophosphate insecticides where diuron will be applied preemergence. Refer to the specific diuron labels for further application information and use restrictions.

### Preemergence/Postemergence Programs

A program of Staple LX 1.3 - 2.1 fl oz /A plus fluometuron applied preemergence followed by Staple LX early postemergence is suggested for improved control of bristly starbur, coffee senna, common ragweed, Florida beggarweed, hemp sesbania, jimsonweed, ladysthumb smartweed, lambsquarter, annual morningglory (cypressvine, entireleaf, ivyleaf, pitted, purple, red/scarlet, sharppod/cotton, smallflower) Pennsylvania smartweed, pigweed (redroot, smooth, spiny), prickly sida, spotted spurge, spurred anoda, velvetleaf and for suppression of palmer pigweed. See **TANK MIX RESTRICTIONS** and **TANK MIX PRECAUTIONS** for additional information.

**Specific Weed Problems** (Sicklepod, Wild Poinsettia, Yellow Nutsedge): For improved control of the above weeds and other labeled weeds that often occur in high populations and/or have multiple seasonal flushes, a program of Staple LX at 1.7 - 2.1 fl oz /A plus fluometuron applied preemergence followed by a postemergence application of Staple LX alone or in combination with MSMA or DSMA is suggested.

Refer to the **POSTEMERGENCE USE** section of this label for use rates, application timings, and restrictions.

## Postemergence Use

Staple LX may be applied postemergence in all cotton varieties, including those containing traits for specific herbicide tolerances, to aid in control of many problem weeds. Regarding all tank mixtures, see **TANK MIX RESTRICTIONS** and **TANK MIX PRECAUTIONS** for additional information.

### Postemergence Use (All states except California)

Foliar absorption is the primary means of uptake from postemergence applications of Staple LX. Therefore, select a spray volume, delivery system and uniform spray pattern that will ensure thorough coverage of the target weed species (including the growing points) to obtain best results. Increase spray volume as weed density and size increases. Avoid overlapping, and shut off spray booms while starting, turning, slowing or stopping, or injury to the crop may result.

**Note:** Staple LX may cause temporary leaf yellowing, bronzing and/or leaf crinkling when applied as a postemergence application. Plant stresses from seedling diseases, insects (thrips injury), blowing sand (sand blasting), hail injury, cool soil or air temperatures (60° F or less), extreme temperature variations and lack of or excessive soil moisture just prior to or soon after treatment may increase the sensitivity of cotton to injury from Staple LX treatments. To reduce the potential for increased cotton sensitivity, allow cotton plants a minimum of 2 days or until the crop fully recovers from the stress condition(s) prior to postemergence applications of Staple LX.

For optimum control, weeds need to be young and actively growing. Control may be reduced if application is made to weeds under stress due to severe environmental conditions such as drought, excessive soil moisture or cool soil or air temperatures (60° F or less).

Application may be made by ground or aerial equipment (except Arizona). In Arizona, apply Staple LX by ground equipment only.

### Postemergence Band Use (California)

Application must be made by ground equipment only. Apply Staple LX as a postemergence band (over-the-top) or as a post-directed band spray over the cotton seed row at 8 - 10 inches wide (not to exceed 10 inches in width). Applications may be made over the top when cotton is at the first visible true leaf stage through 6 inches in height, or post-directed when cotton is up to 10 inches in height. For optimum control, weeds need to be young and actively growing. The degree of control and duration of effect are dependent on the sensitivity and size of the target weed, coverage, rate of Staple LX applied and the environmental conditions at the time of and following application. Regrowth of susceptible weeds may occur if these conditions are not met. Application must be made to the same number of rows as planted to avoid row width variations.

Control may be reduced if application is made following a cultivation, i.e., dirt clods blocking the spray, dust covered weeds, weeds injured by cultivation equipment, or to weeds under stress due to severe environmental conditions such as drought, excessive soil moisture or cool soil or air temperatures (60° F or less).

- Do not cultivate within 5 days after application.

- After a minimum of 5 days after application, a cultivation that moves soil to the crop and covers small treated weeds can improve efficacy.
- Do not sprinkler irrigate cotton within 48 hours after application.

### Application Rates

Apply Staple LX at 2.6 to 3.8 fl oz product/A for control of the weeds listed in “Weeds Controlled” section. Use the higher rate for arid growing conditions or where weed infestations are severe.

**All rates are broadcast. Use proportionately less for band applications.**

**Note:** In New Mexico and W. Texas (broadly defined as West of Highway 83) on sand or loamy sand soil types with less than 1% OM, confine in-season applications of Staple LX to a band of no more than one-third the row width. If replanting back to cotton is necessary, replant outside the original treated band.

### SPRAY ADDITIVES

For the states of AZ, CA, KS, NM, OK and TX, add a nonionic surfactant cleared for application to growing crops, at the rate of 0.25-0.5% V/V or a crop oil concentrate cleared for application to growing crops, at the rate of 1-2% V/V with all postemergence applications. Under arid conditions, a crop oil concentrate is the adjuvant of choice.

For all other registered states, add a nonionic surfactant cleared for application to growing crops, at the rate of 0.25% V/V with all postemergence applications.

### TIMING

Staple LX may be used as a postemergence (over-the-top) or post-directed application to young, actively growing weeds.

### Weeds Controlled (All states except California)

Common Name	Scientific Name	Height or Diameter (inches)
Citronmelon	Citrullus lanatus	1-4
Cocklebur, common <sup>†</sup>	Xanthium strumarium	1-4
Cocklebur, common	(AZ, KS, NM, OK, TX only)	1-3
Coffee senna	Cassia occidentalis	1-4
Cowpea	Vigna sinensis	1-4
Dayflower, common/asiatic	Commelina communis	1-3
Devils claw	Proboscidea louisianica	1-2
Dock, curly	Rumex crispus	1-4
Florida beggarweed	Desmodium tortuosum	1-4
Goosefoot, nettleleaf	Chenopodium murale	1-2
Groundcherry, wright	Physalis wrightii	1-2
Jimsonweed	Datura stramonium	1-4
Knotweed, silversheath	Polygonum argyrocoleon	1-2
Ladysthumb	Polygonum persicaria	1-4
Morningglory,		
cypressvine	Ipomoea quamoclit	1-4
entireleaf	Ipomoea hederacea	1-4
ivyleaf	Ipomoea hederacea	1-4
pitted	Ipomoea lacunosa	1-3
purple	Ipomoea turbinata	1-4
red/scarlet	Ipomoea coccinea	1-3

sharppod/cotton (seedling)	Ipomoea trichocarpa	1-3
smallflower	Jacquemontia tamnifolia	1-4
threelobe	Ipomoea triloba	1-3
woolly	Ipomoea hirsutula	1-3
Mustard, black	Brassica nigrum	1-2
Nightshade		
black	Solanum nigrum	1-2
hairy	Solanum sarrachoides	1-2
Pigweed		
redroot	Amaranthus retroflexus	1-2
smooth	Amaranthus hybridus	1-2
spiny	Amaranthus spinosus	1-2
tumble	Amaranthus albus	1-2
Redweed	Melochia corchorifolia	1-4
Rocket, London	Sisymbrium irio	1-2
Sage, lanceleaf	Salvia reflexa	0.25-0.5
Sesbania, hemp	Sesbania exaltata	1-4
Shepherd's-purse	Capsella bursa-pastoris	1-2
Sida, prickly	Sida spinosa	0.25-1
Smartweed, Pennsylvania	Polygonum pensylvanicum	1-4
Smellmelon	Cucumis melo	1-3
Spiderflower, spiny	Cleome spinosa	1-4
Spurred anoda	Anoda cristata	1-4
Starbur, bristly	Acanthospermum hispidum	1-2
Sunflower		
common	Helianthus annuus	1-4
prairie	Helianthus petiolaris	1-3
Thistle, Russian	Salsola iberica	1-2
Velvetleaf	Abutilon theophrasti	1-4
Waterhemp, common	Amaranthus tamariscinus	1-4
Watermelon (volunteer)	Citrullus vulgaris	1-2
Wild poinsettia	Euphorbia heterophylla	1-2
Wild radish	Raphanus raphanistrum	1-2

### Weeds Suppressed†† (All states except California)

Common Name	Scientific Name	Height or Diameter (inches)
Pigweed, palmer†*	Amaranthus palmeri	1-2
Puncturevine	Tribulus terrestris	1-2
Purple nutsedge	Cyperus rotundus	2-4
Purslane, common	Portulaca oleracea	1-2
Sicklepod	Cassia obtusifolia	0.5-2
Texasweed	Caperonia palustris	1-2
Yellow nutsedge	Cyperus esculentus	2-4

† Naturally occurring biotypes of this weed resistant to Staple LX are known to exist. Staple LX will not control these biotypes. See Information in Resistance section.

†† Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated check. The degree of control will vary with the rate used, size of weeds, crop competition, and environmental conditions.

\* Staple LX will only affect ALS-susceptible palmer pigweed. Activity will be greatest from soil residual or when applied to palmer pigweed no larger than 2". It is recommended to tankmix Staple LX with an effective postemergence herbicide currently labeled for control of emerged palmer pigweed.



**Weeds Controlled (California)**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Height or Diameter (inches)</b>
Cocklebur, common	Xanthium strumarium	1-4
Goosefoot, nettleleaf	Chenopodium murale	1-2
Nightshade		
black	Solanum nigrum	1-2
hairy	Solanum sarrachoides	1-2
Knotweed, silversheath	Polygonum argyrocoleon	1-2
Mustard, black	Brassica nigrum	1-2
Pigweed		
palmer	Amaranthus palmeri	1-2
redroot	Amaranthus retroflexus	1-2
smooth	Amaranthus hybridus	1-2
spiny	Amaranthus spinosus	1-2
Rocket, London	Sisymbrium irio	1-2
Shepherd's-purse	Capsella bursa-pastoris	1-2
Sunflower		
common	Helianthus annuus	1-4
Velvetleaf	Abutilon theophrasti	1-4
Watermelon (volunteer)	Citrullus vulgaris	1-2

**Weeds Suppressed (California)**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Height or Diameter (inches)</b>
Groundcherry, wright	Physalis wrightii	1-2
Morningglory, **		
entireleaf	Ipomoea hederacea	1-4
ivyleaf	Ipomoea hederacea	1-4
Puncturevine		
Purslane, common	Tribulus terrestris	1-2
	Portulaca oleracea	1-3

\* To aid control under arid growing conditions Staple LX may be applied in a single application at up to 3.8 fl oz per acre. Include a nonionic surfactant at 0.5% V/V or crop oil concentrate at 1% V/V.

\*\* For best activity, treat at the one to two leaf stage of weed growth.

**Postemergence Combinations**

Staple LX may be tank mixed with other suitable registered herbicides to control weeds in addition to those listed.

Staple LX can also be mixed with other suitable registered PGR's and insecticides labeled for use on cotton.

See "**TANK MIX PRECAUTIONS**" for additional information.

**Staple LX plus ASSURE® II: Johnsongrass**

Staple LX may be tank mixed with ASSURE® II for additional early postemergence control of johnsongrass in cotton. This tank mix will also control many other grass species. Refer to ASSURE® II label for rates and timing of application. (Note: ASSURE® II is not labeled for use in the state of California.)

Tank mixes of Staple LX with other post grass herbicides can result in antagonism and partial control of rhizome johnsongrass or annual grasses. To avoid poor control of rhizome johnsongrass or annual grasses apply other post grass herbicides at least 3 days prior to the application of Staple LX.

### **Staple LX plus MSMA**

Staple LX may be tank mixed with MSMA and applied POST-DIRECTED for improved control of certain broadleaf weeds and suppression of sedges. Refer to MSMA label for information on weeds, weed sizes, application conditions and use restrictions (follow label guidelines that are most restrictive).

- Treatments of Staple LX + MSMA must be made only as a post-directed application using two nozzles per row set to provide complete coverage of the weeds while avoiding application over the top or to the growing point of the cotton plant.
- The use of gauge wheels or shielded sprayer equipment is suggested to prevent application of Staple LX + MSMA over the top of cotton.
- Certain weeds such as black and hairy nightshade, palmer amaranth, and wright groundcherry have shown antagonism (reduced weed control) from tank mixtures of Staple LX plus MSMA.

**Sicklepod and Yellow nutsedge:** Staple LX will provide partial control (growth suppression) of sicklepod and yellow nutsedge when applied alone at the sizes indicated. For best results, Staple LX needs to be applied as a post-directed application in combination with MSMA at 2 2/3 pints / A (2 lbs ai/A at 6 lbs ai /gal). Applications of Staple LX + MSMA to sicklepod larger than 2 inches or yellow nutsedge larger than 4 inches will only provide partial control (growth suppression).

### **Staple LX plus “Ignite” (“LibertyLink” Cotton) Staple LX plus “Ignite” (“LibertyLink” Cotton)**

A tank mixture of Staple LX at 1.3 - 2.7 fluid ounces per acre plus “Ignite” (glufosinate) or “Ignite” 280 SL herbicides may be applied as a postemergence treatment in “LibertyLink” cotton. See “Ignite” and “Ignite” 280 SL herbicide labels for specific postemergence instructions for weeds, weed sizes and “Ignite” rates.

The addition of Staple LX to labeled postemergence rates of “Ignite” or “Ignite” 280 SL herbicides in “LibertyLink” cotton will provide residual CONTROL of carpetweed, horse purslane, marestail, prickly sida, pigweed (redroot, smooth), spotted spurge, velvetleaf and spurred anoda as well as SUPPRESSION of annual morningglory (cypressvine, entireleaf, ivyleaf, purple, red/scarlet, sharppod/cotton, smallflower, threelobe, wooly), Florida pusley, lambsquarters, smartweed (ladysthumb, Pennsylvania), jimsonweed, coffee senna, palmer pigweed, lanceleaf sage, barnyardgrass, broadleaf signalgrass, goosegrass, fall panicum, giant foxtail, seedling johnsongrass, and large crabgrass. Rainfall (0.5 - 1 inch) following the postemergence application is required for residual control.

Tank mixtures of Staple LX plus “Ignite” or “Ignite” 280 SL herbicides must be applied broadcast in a minimum of 15 gallons of water per acre by ground and 10 gallons of water per acre by air.

### **Staple LX plus Glyphosate (Glyphosate Tolerant Cotton - including “Roundup” Ready Flex Cotton)**

A tank mixture of Staple LX at 1.3 - 3.8 fluid ounces plus glyphosate at 24 - 32 ounces per acre may be applied as an early postemergence treatment in glyphosate tolerant cotton for improved control of hemp sesbania, morningglory (entireleaf, ivyleaf, pitted, scarlet/red), cutleaf evening primrose, prickly sida and palmer pigweed.

The addition of Staple LX to a glyphosate only program will provide residual CONTROL of carpetweed, horse purslane, marestail, prickly sida, pigweed (redroot, smooth), spotted spurge, velvetleaf and spurred anoda and SUPPRESSION of annual morningglory (cypressvine, entireleaf, ivyleaf, pitted, purple,

red/scarlett, sharppod/cotton, smallflower, threelobe, wooly), Florida pusley, lambsquarters, smartweed (ladysthumb, Pennsylvania), jimsonweed, coffee senna, palmer pigweed, lanceleaf sage, barnyardgrass, broadleaf signalgrass, goosegrass, fall panicum, giant foxtail, seedling johnsongrass and large crabgrass. Rainfall (0.5-1 inch) following the postemergence application is required for residual control.

Glyphosate rates are based on 4 pounds active ingredient per gallon formulation. For other glyphosate formulations, rates must be adjusted proportionally to the active ingredient content of the formulation. Staple LX plus glyphosate may be applied postemergence (over-the-top) to glyphosate tolerant cotton through the 4th true leaf stage of growth (when 5th true leaf is the size of a quarter or less).

Staple LX plus glyphosate may be applied using precision post-directed or hooded sprayers to glyphosate tolerant cotton through layby. When making post-directed applications, be especially careful to minimize contact of the spray with cotton leaves. Any single application must not exceed 3.8 fluid ounces of Staple LX or 32 ounces of glyphosate. No more than two post-directed applications may be made from the fifth leaf stage through layby. Do not exceed a seasonal total of 5.1 fluid ounces of Staple LX per acre. All applications must be 10 days apart and cotton must have at least two nodes of incremental growth between applications.

For Staple LX plus glyphosate applications over the top of "Roundup" Ready Flex cotton after the fourth leaf, use only glyphosate formulations that are labelled for over the top applications on "Roundup" Ready Flex cotton. Staple LX plus glyphosate may be applied postemergence (over-the-top) to "Roundup" Ready Flex cotton until 60 days before harvest.

Staple LX plus glyphosate may also be applied using post-directed or hooded sprayers to "Roundup" Ready Flex cotton. When making post-directed applications to "Roundup" Ready Flex cotton, it is no longer necessary to minimize contact of the spray with cotton leaves. Emphasis must be placed on obtaining maximum contact with weed foliage. Any single application must not exceed 3.8 fluid ounces of Staple LX or 32 ounces of glyphosate. When sequential applications of Staple LX are applied, do not exceed a seasonal total of 5.1 fluid ounces of Staple LX per acre.

Under hard water conditions, always add an appropriate rate of either a spray grade ammonium sulfate (AMS) or a water conditioner (such as Helena's "Quest" or Loveland's "Choice") to the spray water prior to adding the glyphosate.

Refer to the glyphosate formulation label for further application information and use restrictions. Follow the label guidelines that are the most restrictive.

**Note:** No antagonism has been observed to annual grass species from this tank mixture.

### **Reduced Rate Sequential Applications (Glyphosate Tolerant Cotton)**

Two applications of Staple LX herbicide at 0.8 - 1.3 fluid ounces per acre plus glyphosate at 16 - 32 ounces per acre (4 pounds active ingredient per gallon formulation) are required for the control of the weeds listed in the Weeds Controlled section of this label. Use the higher rates for adverse growing conditions, heavy weed infestations, or if additional residual control is desired.

Applications must be made postemergence (over-the-top) to glyphosate tolerant cotton from the cotyledon stage until the four leaf (node) stage of cotton development (until the fifth leaf stage reaches the size of a quarter). After the four leaf stage of growth through layby, apply the Staple LX plus glyphosate tank mix as a post-directed application. For best results, make the initial application while weeds are small and actively growing. The applications must be made at least 10 days apart.

Refer to the label of the glyphosate formulation being used for any adjuvant instructions.

Do not exceed a total of 4 quarts of glyphosate (4 pounds per gallon formulation) per acre per season of in-crop use.

## ARIZONA ONLY

A tank mix of Staple LX at 1.7 - 3.8 fluid ounces per acre plus either "Roundup" UltraMax 5L at 26 ounces per acre, "Roundup" WeatherMax at 22 fluid ounces per acre, or "Roundup" PowerMax at 22 fluid ounces per acre may be applied as a postemergence (over-the-top) treatment in glyphosate tolerant cotton for improved weed control of ground- cherry, morningglory, pigweed, puncturevine, purslane and nutsedge. Apply uniformly by ground application in a minimum of 5 - 20 gallons of water per acre.

### Salvage Treatments (Glyphosate Tolerant Cotton)

Where weeds threaten to cause loss of the crop, Staple LX may be applied from cotyledon stage through layby at 1.7 - 3.8 fluid ounces per acre plus "Roundup" Ultra Max 5L up to 40 ounces per acre or "Roundup" WeatherMax up to 32 ounces per acre. Apply this treatment either as an over-the- top application or as a post-directed application sprayed higher on the cotton plants and over the weeds. If at the timing of the salvage treatment the weeds are larger than specified in this label, only partial control may be achieved.

**Note:** Crop tolerance of "Roundup" Ready cotton has not been fully tested at this application rate. Salvage treatments are expected to result in significant boll loss, delayed maturity and/or yield loss and are the sole responsibility of the grower. No more than two salvage treatments can be used per growing season.

Do not exceed a total of 4 pounds of glyphosate ai per acre per season of in-crop use.

## Rotational Crop Restrictions

Shortening of the rotational intervals listed under the Rotational Crop Restrictions may result in crop injury.

### U.S. (All states except California)

These crops may be planted after treatment with Staple LX:

CROP†	INTERVAL (MONTHS)
Cotton*	Anytime
STS® Soybeans or Soybeans with BOLT™ Technology	1
Sorghum, Inzen™ grain	4
Winter/spring, wheat	4
Corn, field #	9
Rice	9
Corn, field ##	10
Peanuts	10
Soybeans	10
Sorghum, grain	±
Tobacco (transplant)	10
All other crops**	Field Bioassay

**Arizona only** - (all crops listed in the main table above plus)

Field corn, grain sorghum	10
Watermelon, cantaloupe	10

**Note:** When rotating to either cantaloupe or watermelon in the spring season following cotton, use only a

single application of Staple LX at no more than 3.8 fluid ounces per acre.

**Note:** Where "drip irrigated" cotton is grown, rotate only to cotton.

### California

The rotational crops listed may be planted at the indicated intervals provided the fields are double disked or deep plowed prior to planting. These crops may be planted after treatment with Staple LX:

CROP	INTERVAL (MONTHS)
Cotton*	Anytime
Tomatoes	8
Wheat	6
All other crops**	Field Bioassay

**Southeast US Only - (GA, NC, N.FL, SC, S.AL)** (all crops listed in the main table above plus)

CROP†	INTERVAL (MONTHS)
Cabbage	12
Cantaloupe	12
Carrots	12
Collards	12
English Pea	12
Mustard (greens)	12
Onions	++
Peppers	12
Snap bean	12
Squash	12
Sweet Corn	12
Sweet Potato	12
Tomato	12
Turnips	12
Watermelon	12

†In AZ, KS, NM, OK, and TX the rotational crops listed may be planted at the indicated intervals provided the fields are deep plowed prior to planting the rotational crop.

\*If initial seeding fails to produce a stand, cotton may be replanted into the treated area. Wherever possible, avoid disturbing original bed. If necessary to rework soil before replanting, use shallow cultivation. Do not rebed nor move soil into the original drill area.

Note: In California, where "drip irrigated" cotton is grown, rotate only to cotton.

Note: New Mexico and W. Texas (broadly defined as west of highway 83) - On sand or loamy sand soils with less than 1% OM replant cotton outside the original treated band.

#Field corn, corn grown for grain or silage, may be planted at the indicated interval provided Staple LX is applied on a band (not to exceed 50% of the row width) and the fields have had a thorough soil mixing, for example, two diskings or a deep plowing, prior to planting. Otherwise, do not rotate to field corn in the season following a Staple LX application.

Note: New Mexico and W. Texas (broadly defined as West of Highway 83) do not rotate to field corn the season following a Staple LX application.

## Limited Geography--Field corn grown for grain or silage, only in the States of AL, AR, FL, GA, LA, MO, MS, NC, SC, TN, and VA, may be planted at the indicated interval provided all the Staple LX applications made in cotton do not exceed a total of 3.8 fluid ounces broadcast per acre per season. No additional soil mixing (disking or plowing) will be required beyond that which is normally done with the various production systems, e.g. conventional tillage, minimum till, no-till, ridge till, etc.

‡Do not rotate to grain sorghum in the season following a Staple LX application unless planting Inzen™ Grain Sorghum which has a 4 month recrop following the last Staple LX application.

For Southeast Texas, in an area broadly defined as east of route I-35 and south of route US 90, to include Uvalde, Medina and Bexar counties, grain sorghum may be planted after a 10 month interval provided that in the above outlined area has received a minimum of 25 inches of rainfall following a Staple LX application and the fields have had a thorough soil mixing, for example two diskings or a deep plowing prior to planting.

For the Rio Grande Valley of Texas, do not rotate to corn or grain sorghum in the fall crop season following a Staple LX application.

\*\* A minimum rotational interval of 10 months is required for all crops not listed above. Field bioassay results may require that this interval be extended. A successful field bioassay means growing to maturity a test strip of the crop(s) intended for production the following year. The test strip must cross the entire field including knolls and low areas.

++ Do not rotate to onions in the fall or spring crop season following a Staple LX application.

## REPLANTING TO COTTON

If initial seeding fails to produce a stand, cotton may be replanted in soil treated preemergence with Staple LX. Whenever possible avoid disturbing the original seedbed. If it proves necessary to rework the soil before replanting, use shallow cultivation. Do not relist nor move soil into the original drill area. Plant cotton seed at least 1 inch deep. Do not retreat field with a second preemergence application of Staple LX during the same year as injury may result. For tank mix applications, see the respective combination product label for further replanting information. Follow the label guidelines that are the most restrictive. Note: In New Mexico and W. Texas (broadly defined as West Highway 83) on sand or loamy sand soil types with less than 1% OM, replant outside the original treated band.

## COTTON CROP FAILURE

In the event of a cotton crop failure where seasonal constraints do not allow replanting to cotton, pyriithobac sodium tolerant soybeans, such as STS® soybeans or Soybeans with BOLT™ technology may be used as a replant crop. Pyriithobac sodium tolerant soybeans may be planted 30 days following the last Staple LX application to the failed cotton crop.

Where other herbicides have been used with or in conjunction with Staple LX, refer to the other herbicide label(s) for any information or restrictions prior to replanting with STS® soybeans or Soybeans with BOLT™ technology.

## Additional Use Restrictions

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

- Do not apply, drain or flush 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 contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.

## Additional Use Precautions

Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:

- Avoid all direct or indirect (such as spray drift) contact with crops other than cotton.
- Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than cotton.

## Sprayer Preparation

It is important that spray equipment is clean and free of existing pesticide deposits before using Staple LX. Follow the clean up procedures specified on the label of the product(s) previously used. If no clean up procedure is provided, follow this clean up procedure for all application equipment before using Staple LX:

1. Thoroughly rinse sprayer, tanks, boom and hoses with clean water.



2. Partially fill tank with water and add ammonia (1 gal. of ammonia per 100 gal. of tank volume) or a tank cleaner. Complete filling the tank and flush the cleaning solution through the boom hoses. Let solution stand for 15 minutes while agitating/recirculating, and then drain the tank by flushing the hoses, booms and nozzles.
3. Thoroughly rinse the sprayer, tanks, boom and hoses with clean water.
4. Follow label directions on product(s) previously sprayed for disposal.

Mix the proper amount of Staple LX into the necessary volume of water in the spray tank with the agitator running. Continuous agitation is required for a uniform suspension and application. Staple LX must be added first to the spray tank followed by tank mix partner, if used, then the adjuvant.

Use spray preparation of Staple LX and approved adjuvant within 7 days or product degradation may occur. If spray preparation is left standing without agitation, thoroughly agitate before using.

**PRECAUTION:** Do not use chlorine bleach with ammonia. See Sprayer Clean Up Section for more information.

## Sprayer Clean Up

Spray equipment must be clean and free of previous pesticide deposits before applying Staple LX and properly cleaned out after applying Staple LX. Using the clean up procedures specified on the label of the previously used product, clean all application equipment before applying Staple LX. If no clean up procedure is provided, use the procedure that follows. Immediately following applications of Staple LX thoroughly clean all mixing and spray equipment according to the following instructions:

1. Drain Tank: Thoroughly hose down the interior surfaces of the tank; then flush tank, boom and hoses with clean water for a minimum of 5 minutes. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and add one gal. of household ammonia\* (3% active) for every 100 gal. of water. Flush the cleaning solution through the boom, hoses and nozzles. Add more water to completely fill the tank and allow to agitate/recirculate for at least 15 minutes. Again, flush the boom, hoses and nozzles with the cleaning solution, then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing the cleaning agent and water.
4. Repeat step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing the water through the hoses and boom.
6. Dispose of the rinsate on site or at an approved waste disposal facility.

\* Equivalent amounts of an alternate-strength ammonia solution can be used in the cleanout procedure. Carefully read and follow the individual cleaner instruction.

**PRECAUTION:** Do not use chlorine bleach with ammonia when cleaning out spray tanks. All traces of liquid fertilizer containing ammonia, ammonia nitrate or ammonium sulphate must be rinsed with water from the mixing and application equipment before adding any chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor which can cause eye, nose, throat and lung irritation.

Do not clean equipment in an enclosed area.

---

**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 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.

---

**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 for use, subject to the inherent risks set forth below. To the extent 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.

---

**Inherent Risks of Use**

---

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 consistent with applicable law, all such risks associated with non-directed use shall be assumed by buyer and/or user.

---

**Limitation of Remedies**

---

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, 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 product used.

To the extent consistent with applicable 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 consistent with applicable 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 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.

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

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

™®Trademarks of Corteva Agriscience and its affiliated companies

EPA accepted \_\_/\_\_/\_\_