



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

June 21, 2023

Shannon Whitlock  
Regulatory Leader  
US CP Regulatory Affairs  
Corteva Agriscience LLC  
9330 Zionsville Road  
Indianapolis, IN 46268-1054

Subject: Registration Review Label Mitigation for Flumetsulam, Acetochlor, & Clopyralid  
Product Name: SURESTART HERBICIDE  
EPA Registration Number: 62719-570  
Application Dates: May 12, 2021; September 27, 2021; & March 10, 2022  
Decision Numbers: 582517, 578761, & 575613

Dear Shannon Whitlock:

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 Flumetsulam, Acetochlor, and Clopyralid Interim Decisions, 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. 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

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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 Caleb Carr via email at [carr.caleb@epa.gov](mailto:carr.caleb@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure

(Base label):

<b>ACETOCHLOR</b>	<b>GROUP</b>	<b>15</b>	<b>HERBICIDE</b>
<b>FLUMETSULAM</b>	<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>
<b>CLOPYRALID</b>	<b>GROUP</b>	<b>4</b>	<b>HERBICIDE</b>

# SureStart®

## HERBICIDE

**For use on herbicide tolerant and conventional field corn, and silage corn**

**Active Ingredients:**

- acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide ..... 41.67%
- flumetsulam: N-(2,6-difluorophenyl)-5-methyl-1,2,4-triazolo-[1,5a]-pyrimidine-2-sulfonamide ..... 1.3%
- clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt ..... 4.27%
- Other Ingredients: ..... 52.76%
- Total ..... 100.00%

Acid equivalent: clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid – 3.24% (0.29 lb/gal)

Contains 3.75 lb acetochlor, 0.38 lb clopyralid monoethanolamine salt, and 0.12 lb flumetsulam active ingredient per gallon

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

**Keep Out of Reach of Children**

# CAUTION

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

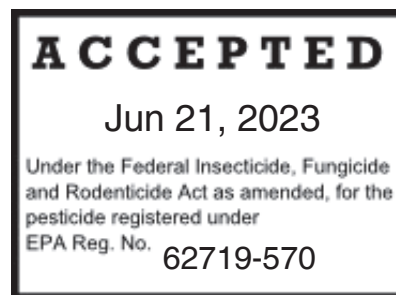
**Causes Moderate Eye Irritation • Prolonged or Frequently Repeated Skin Contact May Cause Allergic Reactions in Some Individuals**

**Avoid contact with eyes or clothing.**

#### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

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



Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

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

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 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.

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 day or night, for emergency medical treatment information.

### Environmental Hazards

Caution should be exercised when handling this product at mixing and loading sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

**Non-Target Organism Advisory:** This product is toxic to plants and fish 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.

**Groundwater Advisory:** This product is known to leach through soil into groundwater under certain conditions, as a result, of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of clopyralid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

**["Editor's note (Overflow text on base label): The referral statement "See Environmental Hazards section of label booklet for Ground Water Advisory Statements." may be substituted for the following Ground Water Advisory statements on the base label.]**

### 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.

**Nonrefillable containers 5 gallons or less:****Storage and Disposal**

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

**Pesticide Storage:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

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

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

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable containers larger than 5 gallons:****Storage and Disposal**

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

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

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

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**Refer to inside of label booklet for additional precautionary information including 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 not acceptable, return at once unopened.**

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

Agricultural Chemical: Do not ship or store with food, feeds, drugs, or clothing.

EPA Reg. No. 62719-570

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

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

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

(cover/shipping container)

<b>ACETOCHLOR</b>	<b>GROUP</b>	<b>15</b>	<b>HERBICIDE</b>
<b>FLUMETSULAM</b>	<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>
<b>CLOPYRALID</b>	<b>GROUP</b>	<b>4</b>	<b>HERBICIDE</b>

# SureStart<sup>®</sup>

## HERBICIDE

### For use on herbicide tolerant and conventional field corn and silage corn

Active Ingredients:

acetochlor: 2-chloro-2'-methyl-6'-ethyl-N-ethoxymethylacetanilide .....	41.67%
flumetsulam: N-(2,6-difluorophenyl)-5-methyl-1,2,4-triazolo-[1,5a]-pyrimidine-2-sulfonamide .....	1.3%
clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid, monoethanolamine salt .....	4.27%
Other Ingredients: .....	52.76%
Total .....	100.00%

Acid equivalent: clopyralid: 3,6-dichloro-2-pyridinecarboxylic acid – 3.24% (0.29 lb/gal)

Contains 3.75 lb acetochlor, 0.38 lb clopyralid monoethanolamine salt, and 0.12 lb flumetsulam active ingredient per gallon

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

**Keep Out of Reach of Children**

## CAUTION

### Agricultural Use Requirements

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

**Refer to 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 not acceptable, return at once unopened.**

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**NET CONTENTS \_\_**



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## Precautionary Statements

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### Hazards to Humans and Domestic Animals

# CAUTION

**Causes Moderate Eye Irritation • Prolonged or Frequently Repeated Skin Contact May Cause Allergic Reactions in Some Individuals**

**Avoid contact with eyes or clothing.**

### Personal Protective Equipment (PPE)

**Applicators and other handlers must wear:**

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 Controls

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

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 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.

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 day or night, for emergency medical treatment information.

### Environmental Hazards

Caution should be exercised when handling this product at mixing and loading sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

**Non-Target Organism Advisory:** This product is toxic to plants and fish 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.

**Groundwater Advisory:** This product is known to leach through soil into groundwater under certain conditions, as a result, of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

**Surface Water Advisory:** This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several weeks after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of clopyralid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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## Directions for Use

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on 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 48 hours. **Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

### Storage and Disposal

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

**Pesticide Storage:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

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

#### Nonrefillable containers 5 gallons or less:

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

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### Refillable containers larger than 5 gallons:

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

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

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### Product Information

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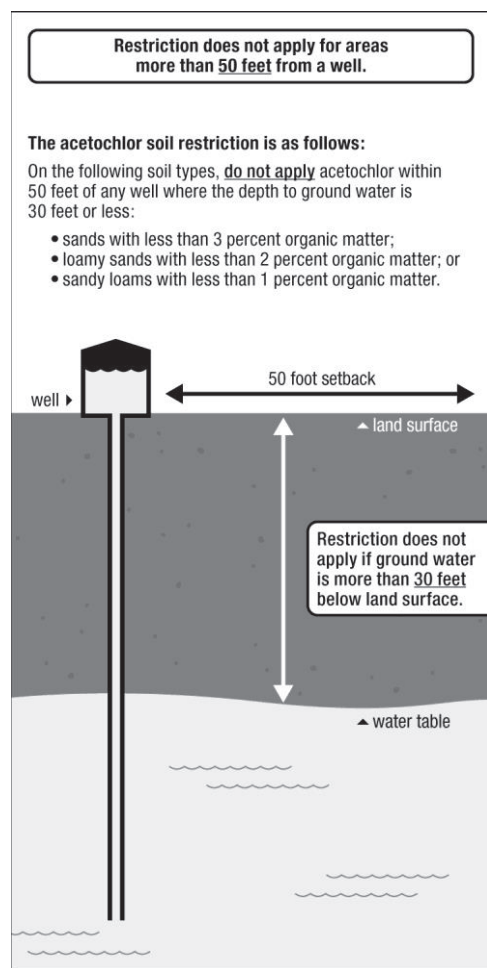
SureStart® herbicide is designed for use on herbicide tolerant (such as Roundup Ready® or Liberty Link®)

and conventional field corn and silage corn. It may be used in preplant, preemergence, or early postemergence applications in corn. It is designed to provide early season control of grass and broadleaf weeds to allow for optimal timing of the in-crop postemergence application of glyphosate or glufosinate.

SureStart is a unique combination of the herbicides acetochlor, flumetsulam, clopyralid, and the safener dichlormid. SureStart may be applied to the surface or incorporated into the top 1-to-2-inch layer of soil. It is specified for use alone or in tank mix combinations for control or suppression of weeds, as indicated in the Target Weeds section of these use directions. SureStart controls weeds by interfering with normal germination and seedling development. SureStart may provide postemergence activity on 1-to-2-inch broadleaf weeds present at application but will not provide postemergence activity on grass weeds present at application. If emerged grass and broadleaf weeds are present at the time of application, best results will be achieved by tank mixing an herbicide such as glyphosate (Durango<sup>®</sup> DMA or Roundup<sup>®</sup>), glufosinate (Liberty<sup>®</sup>) or paraquat (Gramoxone) and/or 2,4-D with SureStart.

### Use Precautions and Restrictions

- **Not for Sale, Sale Into, Distribution and/or use in Nassau and Suffolk Counties of New York State.**
- On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1 percent organic matter. See the figure for additional clarification.



- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.
- This product is persistent and may be present in treated plant materials for months to years after application. Do not sell or transport treated plant materials or manure from animals that have grazed on treated plant materials off-site for compost distribution or for use as animal bedding/feed for 18 months after application.
- Manure from animals that have grazed or eaten forage or hay harvested from treated areas within the previous three days may only be applied to the fields where the following crops will be grown: pasture grasses, grass grown for seed, wheat, and corn.
- Animals that have been fed clopyralid-treated forage must be fed forage free of clopyralid for at least 3 days before movement to an area where manure may be collected, or sensitive crops are grown.
- **Do not apply this product using aerial application equipment.**
- This product may not be mixed or loaded within 50 feet of any wells including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.
- Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container, or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.
- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- For applications to pasture:
  - The applicator must document that they have notified property owners/operators, or customers, in writing, of the compost and animal bedding/feed prohibitions within 14 days of the application. Applicators must keep the records of notification for two years. This record must include date of application, the name of the applicator, the EPA registration number of the product applied, the area(s) treated, and a copy of the written notification provided to the property owner/operator. Notification may be made via email, via mail, via paper handout, or by any other written communication method. Records must be made available to State Pesticide Regulatory Officials(s), and to EPA upon request. If this information is already being retained, duplicate records are not needed.
  - It is recommended that applicators also transmit at the time of notification relevant educational materials for managing treated plant matter, as available. Additional educational materials for clopyralid will be posted at: <https://www.epa.gov/ingredients-used-pesticide-products/registration-review-pyridine-and-pyrimidine-herbicides#compost>.
  - Applications by property owners/operators on their own property are exempt from this notification and record keeping requirement.
  - Applications to public land (i.e., lands managed directly by federal, state, tribal, or local authorities) are exempt from this notification requirement.

### Application Restrictions

- Uneven application or uneven incorporation of SureStart can result in erratic weed control or crop injury. Over application may result in crop injury or rotational crop damage from soil residue.

- **Maximum Application Rates:** The total cumulative maximum application amount of SureStart on corn is 3.5 pints per acre per crop season.
- Do not exceed 3 pints per acre in a single application.
- Do not apply when wind is gusting or wind speeds in excess of 15 mph, will lead to uneven spray coverage resulting in drift.
- Do not use nozzles that produce a fine-droplet spray.
- Do not apply when weather conditions favor drift to nontarget sites.

### **Restrictions And Precautions for Soil Application (Not Applicable to Postemergence Use)**

- **Corn Planting Depth:** Minimum planting depth should be at least 1 ½ inches.
- Do not apply to areas where the soil pH is greater than 7.8 as this may result in increased crop injury.
- Do not apply to a soil containing greater than 5% organic matter if the soil pH is below 5.9 as reduced weed control will result.
- Use of SureStart in soil-applied treatments on soils with less than 1.5% organic matter (O.M.) may result in crop injury. Apply as a soil-treatment to fields which have less than 1.5% O.M. only if the risk of crop injury is acceptable.
- If any herbicide with ALS (acetolactate synthase) inhibition mode of action such as Pursuit, Canopy, Classic, Scepter, or Squadron herbicide, etc., was applied the previous year, apply SureStart to corn only if the rotational restrictions applicable to corn for the preceding product has been met.

### **Adverse Weather Conditions**

- Extended cold, wet conditions (soil temperatures below 50°F and excessive rainfall with wet soil conditions), following application of SureStart to herbicide tolerant corn, which persist during germination and/or early crop development may result in crop injury. Injury symptoms, which include yellowing of leaves and/or crop stunting, are usually temporary and affected corn plants usually recover without affecting yield.
- Dry weather following preplant surface or preemergence applications of SureStart may reduce effectiveness. If sufficient activating rainfall or overhead irrigation does not occur within 7 to 10 days of application, rotary hoe, harrow, or shallowly cultivate to incorporate the herbicide lightly into the soil. Use a preplant incorporated application when a period of dry weather is predicted after application.
- Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and/or high temperatures. Do not apply during inversion conditions.

### **Soil Insecticide Advisories**

When SureStart is used for soil applied weed control in corn:

- Soil applied organophosphate insecticides (except terbufos or phorate, see below) should be applied in a T-band or a band to avoid potential crop injury.
- Terbufos (Counter insecticide products) or phorate (Thimet insecticide products) should not be used.
- Soil insecticides from other classes of chemistry may be applied in-furrow, T-banded, or banded.

### **Soil Insecticide Advisories for Postemergence Applications**

- Do not apply SureStart postemergence if corn was previously treated with terbufos (Counter insecticide products) or phorate (Thimet insecticide products) as severe crop injury may result.
- Postemergence applications of SureStart to corn previously treated with T-band, band, or in-furrow applications of other organophosphate insecticides such as Lorsban®, Aztec or Fortress, insecticides may cause temporary crop injury.

### **Foliar Insecticide Advisories for Postemergence Applications**

- Do not tank mix SureStart with foliar postemergence organophosphate insecticides as severe crop injury may result. To avoid crop injury, apply the foliar organophosphate insecticide treatment at least 10 days before or 10 days after the application of SureStart.

- SureStart may be tank mixed with non-organophosphate foliar insecticides, provided they are labeled for use with postemergence corn herbicides.

#### Other Precautions and Restrictions

- Do not apply SureStart to sweet corn or popcorn.
- **Hybrid Seed Production:** Corn inbred lines grown for hybrid seed production may be injured by SureStart. Inbred lines should be thoroughly tested for crop tolerance before treating large acreage. While growers are not prohibited from using SureStart on seed corn, Corteva Agriscience **will not accept responsibility for any crop injury arising from the use of SureStart on field corn grown for seed.**
- **Preharvest interval:** An interval of at least 85 days is required between application of SureStart and field corn harvested for grain.
- **Avoid all direct or indirect contact with non-target plants.** Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants under conditions of application to minimize potential exposure.
- **Crop Residues from Treated Areas:** Crop residues from treated areas cannot be used for composting or mulching on ground where susceptible crops may be grown the following season. To promote herbicide decomposition, plant material should be evenly incorporated or burned. Adequate moisture is also required to promote breakdown of plant residues, which contain clopyralid.
- **Do not move treated soil.** Avoid situations where soil particles may blow into areas where susceptible crops are grown. The hazard of movement of this product on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.
- **Do not apply under conditions that favor runoff or wind erosion of soil containing SureStart to non-target areas. To prevent off-site movement due to runoff or wind erosion:**
- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snowcovered ground.
- Do not apply to soils when saturated with water.
- **Do not apply when weather conditions favor drift to non-target sites.** Spray drift of SureStart to emerged soybeans or soil to which soybeans will be planted during the same growing season may cause soybean injury.
- Do not use tailwater from the first flood or furrow irrigation of treated field to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

#### Sprayer Cleanup

To avoid injury to or exposure of non-target crops, thoroughly clean and drain spray equipment used to apply SureStart after use. Cleaning should occur as soon as possible after application of SureStart. Spray equipment should be cleaned after use with SureStart by the following procedure:

1. Drain any remaining SureStart from the spray tank and dispose of according to label disposal instructions.
2. Hose down the interior surfaces of the tank. Flush tank, hoses, boom, and nozzles with clean water for 10 minutes. Fill the tank with water and recirculate for 15 minutes. Spray part of the mixture through the hoses, boom, and nozzles and drain the tank. All rinse water must be disposed of in compliance with local, state, and federal guidelines.
3. Fill the tank with water and recirculate for 15 minutes. For optimum cleaning, a tank cleaner such as liquid ammonia (1 gallon per 100 gallons of water) or other commercial tank cleaner is recommended in the second rinse if the spray equipment will be used on crops other than field corn. Spray part of the mixture through the hoses, boom, and nozzles and drain the tank. All rinse water must be disposed of in compliance with local, state, and federal guidelines.
4. Remove the nozzles and screens and clean separately.
5. If the spray equipment will be used on crops other than field corn, repeat steps 1 and 2 again and thoroughly wash the spray mixture from the outside of spray tank and the boom.

**Rotational Crop Restrictions:**

When tank mixing with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The following rotational crops may be planted as indicated:

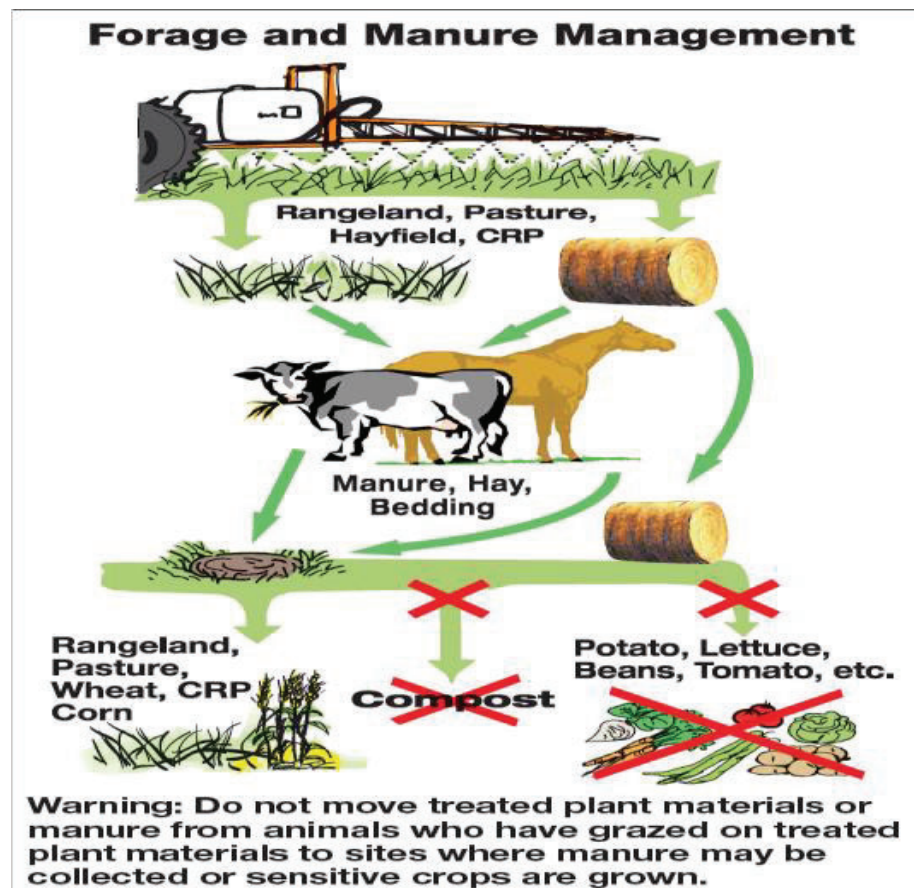
<b>Rotational Crop (1)</b>	<b>Timing or Interval</b>
corn	Anytime - 0 months after application
wheat	4 months after application
alfalfa (2), barley, clover (2), dry beans (2, 3), lespedeza (2), oats, pea (4), popcorn, rye, soybean (2), vetch (2), wild rice	Spring Following Application
sorghum	12 months
potatoes, sunflower, sweet corn (5), tobacco	18 months
Sugar Beets, Canola, and all other crops	26 months (6)

Numbers within parentheses (-) in the table refer to Specific Rotational Crop Requirements below.

- (1) If crop treated with SureStart is lost, corn may be replanted immediately. Do not make a second application of SureStart.
- (2) When annual rainfall and/or irrigation is less than 15 inches on soils with less than 2% organic matter, this crop should not be planted until 18 months after treatment.
- (3) Dry beans includes: adzuki, kidney, lima (dry), navy, pinto
- (4) Pea includes: blackeyed, chick, cow, Crowder, field, pigeon, Southern.
- (5) Certain sweet corn varieties may be planted 10.5 months following application. Please refer to the separate product bulletin for a list of these varieties.
- (6) Rotation to Sugar Beets, Canola, and all other crops requires a 26 – month rotation interval and a successful field bioassay.

**Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. Field bioassay at any time between harvest of the treated crop and the planting of the rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop or crop listed in the table above for which the rotational interval has clearly been met.





For more information on how to manage clopyralid treated materials and to prevent clopyralid from contaminating compost please visit <https://www.epa.gov/ingredients-used-pesticide-products/registration-review-pyridine-and-pyrimidine-herbicides#compost>.

### Aerial Application

Do not apply SureStart using aerial application equipment.

### Mandatory Spray Drift

#### Ground Boom Applications:

- Applicators are required to select a nozzle and pressure that deliver medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- User must only apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- 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.

- **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.

- **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.

- **WIND**

Drift potential generally increases with wind speed.

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

## Weed Resistance Management

SureStart contains the active ingredients acetochlor (Group 15), flumetsulam (Group 2) and clopyralid (Group 4) herbicides based on the mode of action classification system of the Weed Science Society of America.

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

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

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

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- If using post-emergence herbicides or tank mixes, control weeds early when they are relatively small.
- Apply full rates of SureStart for the most difficult to control weed in the field at the specified time to minimize weed escapes.

- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local company representative, local retailer, or county extension agent.
- Contact your local company representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective modes of action for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Groups 15, Group 4 or 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 herbicide with other mode of action as a foundation in a weed control program, if appropriate.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 15, 4 and 2 herbicides.
- Avoid making more than two sequential applications of SureStart and any other Group 15, 4 or 2 herbicides within a single growing season unless mixed with an herbicide with a different mode of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields to reduce weed seed production.

**Report any incidence of repeated non-performance of this product on a particular weed to your Corteva Agriscience representative, local retailer, or county extension agent.**

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## Application Directions - Corn

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### Carriers and Spray Volume

**Liquids:** Either water or liquid fertilizers such as solutions, slurries, or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility with these must be done **before combining** in the spray tank. See Appendix I for details of the compatibility testing procedure. Even if SureStart is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

Apply in a minimum broadcast spray volume of 10 gallons per acre using boom equipment for ground applications. Use low pressure nozzles designed for application of herbicides. Use sufficient operating pressure to produce the desired spray pattern for the nozzle (15 to 40 psi) and follow manufacturer's instructions for nozzle spacing and operating height to ensure uniform spray distribution at the soil surface. Use 50-mesh or coarser screens, if needed.

**Dry Bulk Fertilizer:** SureStart may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. Use at least 200 lb of dry bulk fertilizer per acre. See Appendix II for more details including which fertilizers are compatible.

### Adding to Spray Tank

The spray tank must be clean, thoroughly rinsed, and decontaminated before adding either SureStart alone or in tank mix combinations. If water is used as the carrier, use clean water. All return lines to the spray tank must discharge below the liquid level.

**Used Alone:** If SureStart is used alone, add the specified amount to the spray tank before the tank is half filled, then add the rest of the water or fluid fertilizer. Provide sufficient agitation to ensure thorough mixing and to maintain a uniform spray mixture during application.

**Tank Mixed:** If a tank mixture is used, it is recommended that a small-scale test of compatibility be done before actual tank mixing. See Appendix I for details on the procedure for such a test.

### Water Carrier

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order:

- Compatibility agent if needed
- To start, add one-half of the required amount of water to the spray tank. Begin agitation.
- Products in water soluble packaging. Important: Allow time for complete dispersion.
- Wettable powders or dry flowables (slurry if specified by tank mix product label)
- Liquid flowables
- SureStart or other emulsifiable concentrates
- Suspension concentrates
- Urea ammonium nitrate (UAN) or ammonium sulphate (AMS), if required
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine
- Crop oil concentrate (COC) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume

### Liquid Fertilizer Carrier

Allow time for complete dispersion/mixing before adding another product to the spray mixture. Add products to the tank mixture in the following order:

- To start, add one-half of the required amount of liquid fertilizer to the spray tank. Begin agitation.
- Compatibility agent if needed
- Products in water soluble packaging. Important: Products in water soluble packaging must be premixed with water (slurried) prior to addition to the spray tank.
- Wettable powders or dry flowables (slurry if specified by tank mix product label)
- Liquid flowables
- SureStart or other emulsifiable concentrates
- Suspension concentrates
- Ammonium sulphate (AMS) if tank mixing with glyphosate.
- Soluble liquids such as glyphosate, paraquat, 2,4-D amine
- Crop oil concentrate (COC) or nonionic surfactant (NIS), if required
- Finish filling spray tank to required spray volume.

**Note:** For all tank mixtures, maintain agitation during mixing and throughout application to ensure spray mixture remains uniformly suspended.

### Application Timing and Methods

For the optimum period of effective weed control during the time most critical to corn production, preplant and preemergence applications of SureStart herbicide should occur as close as possible to planting and

prior to weed emergence. Postemergence applications may be made from prior to weed emergence up to 1 to 2 inch weeds. If weeds are emerged, apply in tank mix combination with a glyphosate product such as, Durango DMA or Roundup or a glufosinate product such as, Liberty to control emerged weeds in herbicide tolerant corn.

**Fall and Spring Early Preplant:** SureStart herbicide may be applied in the fall or early spring at 2.0-3.0 pints per acre.

**Fall Applications:** Following soybean harvest, apply to soybean stubble after October 15, when the sustained soil temperature at 4-inch depth is less than 50 degrees F, but before ground freezes. Use on medium and fine textured soils with greater than 2.5% organic matter. Only corn may be planted the following spring. Ground may be tilled before or after application. Do not exceed 2-inch incorporation depth if tilled after application. If a spring application is made, the total rate of the fall plus spring application must not exceed 3.5 pints per acre.

**Spring Early Preplant Applications:** On medium and fine textured soils, SureStart may be applied 21 or more days prior to planting. If the application is made less than 21 days prior to planting, please refer to the use rate table below for specific product rate recommendations.

**Preplant Incorporation:** SureStart and certain tank mixes may be mechanically incorporated into the top 2 inches of the soil by mechanical means such as field cultivators, discs, or spring tooth harrows any time up to 14 days before planting. Improper incorporation, excessive crop residues, or poor soil tillage may result in erratic, streaked, or otherwise unsatisfactory weed control. Do not mix SureStart deeper than 2 inches into the soil and avoid moving or shaping soil after incorporation.

**Preemergence Surface:** SureStart and certain tank mixes may be applied to the soil surface as a broadcast or banded application. Precipitation or sprinkler irrigation of at least 0.25 inch is required to bring SureStart into contact with germinating seeds. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar equipment to incorporate the herbicide. Incorporation equipment should be run at a shallow depth to avoid disturbance of germinating corn seed. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped after incorporation.

**Postplant-Preemergence:** SureStart may be applied after planting but prior to corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar equipment to shallowly incorporate the herbicide. Incorporation equipment should be run at a shallow depth to prevent disturbance of the germinating corn. Erratic weed control resulting from exposure of untreated soil may occur if surface soil is moved or reshaped during incorporation.

**Early Postemergence:** SureStart may be applied early postemergence to corn up to 11-inch tall corn. Applications may be made from prior to weed emergence up to 1-to-2-inch weeds. If weeds are emerged, apply in tank mix combination with a glyphosate product such as Durango DMA or Roundup or a glufosinate product such as Liberty to control emerged weeds in herbicide tolerant corn. Read and follow restrictions and directions on tank mix product labels. SureStart will provide limited activity on small (1-2 inch) emerged broadleaf weeds but will not control established or germinated grass weeds present at application listed in the Target Weeds Controlled or Partially Controlled section of this label. If grass and broadleaf weeds have germinated, and emerged, best results will be achieved by tank mixing a glyphosate herbicide (Durango DMA or Roundup) or glufosinate herbicide (Liberty) with SureStart for control of emerged weeds. SureStart will provide soil residual control of the grass and broadleaf weeds listed in the Target Weeds Controlled or Partially Controlled section of this label. **Note: Postemergence applications of SureStart tank mixed with glyphosate may be applied only on corn varieties designated as containing the glyphosate tolerant gene. Postemergence applications of SureStart tank mixed with glufosinate may be applied only on corn varieties designated as containing the Liberty Link gene.**

**Sprinkler Irrigation: Do not apply SureStart by sprinkler irrigation.** Use a sprinkler system only to incorporate SureStart after application. After SureStart has been applied, a sprinkler irrigation system set to deliver 0.25 to 0.75 inch of water per acre may be used to incorporate the product. Using more than 0.75 inch of water could result in reduced performance. On sandy soil low in organic matter, use no more than 0.5 inch of water. Do not use flood irrigation to apply or incorporate SureStart.

### Cultivation

Cultivation should be delayed as long as possible. If weeds develop, a shallow cultivation or rotary hoeing will generally result in improved weed control. If SureStart was incorporated, cultivate to a depth of less than half the depth of incorporation.

If cultivation is necessary due to soil crusting or compaction, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

### Soil Texture and Organic Matter

The use rate of SureStart is determined by a combination of two factors, soil texture and organic matter, which must be determined prior to application. Different soil textures are grouped into three textural classes (coarse, medium, and fine) as outlined in Table 1. Soil texture and organic matter content of the soil may be determined from soil survey information and/or by laboratory analysis and must be known in order to select the proper rate from Table 2.

**Table 1:** Soil Texture Groupings for SureStart Use Rate Selection

Coarse	Medium	Fine
Sand Loamy Sand Sandy Loam	Loam Silt Silt Loam Sandy Clay Loam	Silty Clay Loam Silty Clay Sandy Clay Sandy Clay Loam Clay Loam Clay

### Use Rates

SureStart may be used in conventional, reduced and no-till systems. Optimal weed control will be obtained when applications are made as close as possible to planting but before weeds emerge. However, applications may be made from 30 days prior to planting through 11-inch-tall corn. In reduced or no-till systems, it is recommended that a burndown herbicide such as glyphosate (Durango DMA, Roundup or Touchdown), glufosinate (Liberty) or paraquat (Gramoxone) and/or 2,4-D be tank mixed with SureStart if emerged weeds are present at application. SureStart may be used at rates from 1.5 to 3.0 pints per acre. Use rates in the higher end of the rate range for soil type (see table below) for longer residual activity. Apply 2.0-3.0 pints per acre in fall or spring early preplant applications.

**Use Rates for SureStart by Soil Texture and Organic Matter Content**

Soil Texture	Soil Organic Matter Content	
	Less Than 3%	3% or Greater
	Pints/Acre	Pints/Acre
Coarse	1.5 – 2.0	1.5 – 2.0
Medium	1.5 – 2.5	1.75 – 3.0
Fine	2.0 – 3.0	2.0 – 3.0

### Target Weeds Controlled or Partially Controlled by SureStart at Specified Use Rates

SureStart will provide activity on the following weeds which will allow for optimal timing of an in-crop postemergence application of glyphosate or glufosinate in herbicide tolerant corn. Partially controlled weeds will be severely stunted, or experience reduced height, vigor, or population compared to untreated areas.

Grasses and Sedges	Broadleaves	
Barnyardgrass	amaranth, Palmer	ragweed, common
crabgrass spp.	beggarweed, Florida	ragweed, giant
Crowfootgrass	buckwheat, wild	shepherd's purse
cupgrass, prairie	carpetweed	sicklepod
cupgrass, southwestern	chickweed, common	sida, prickly
cupgrass, woolly	clover, red	smartweed, Pennsylvania
foxtail, bristly	cocklebur, common	spurge, nodding
foxtail, giant	galinsoga	spurge, prostrate
foxtail, green	henbit	spurge, spotted
foxtail, robust (purple, white)	horseweed (marestail)	sunflower, common
foxtail, yellow	jimsonweed	thistle, Canada (1)
Goosegrass	kochia	velvetleaf
johnsongrass, seedling	ladysthumb	waterhemp species
millet, foxtail	lambsquarters, common	wormwood, biennial
millet, wild proso	mallow, Venice	
nutsedge, yellow	morningglory, ivyleaf	
panicum, browntop	morningglory, tall	
panicum, fall	mustard, wild	
panicum, Texas	nightshade species	
rice, red	pigweed, redroot	
sandbur, field	pigweed, smooth	
Shattercane	poinsettia, wild	
signalgrass, broadleaf	puncturevine	
sprangletop, red	purslane, common	
Witchgrass	pusley, Florida	

(1) Burndown activity of Canada thistle in minimum and no-till corn only.

SureStart will provide limited activity on small (1-2 inch) emerged broadleaf weeds but will not control established or germinated grass weeds present at application. If grass and broadleaf weeds have germinated, and emerged, best results will be achieved by tank mixing a glyphosate herbicide (Durango DMA, Roundup or Touchdown) or glufosinate herbicide (Liberty) with SureStart for control of emerged weeds. SureStart will provide soil residual control of the grass and broadleaf weeds listed above.

SureStart will control or suppress glyphosate, triazine or ALS resistant biotypes of the weeds listed above.

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### Tank Mix Combinations

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Additional weeds may be controlled with tank mixes. Tank mix combinations may be used in either conventional, reduced, or no-till systems and may be applied by the same methods and at the same application timing as SureStart herbicide unless otherwise specified in the tank mix product label.

If emerged grass and broadleaf weeds are present at the time of application, best results will be achieved by tank mixing the appropriate rate of herbicides such as glyphosate (Durango DMA, Roundup or Touchdown) or paraquat (Gramoxone) and/or 2,4-D with SureStart. **Do not** post apply SureStart in tank

mix combination with Basagran, Laddock, or Lightning herbicides as severe crop injury may result.

SureStart may be tank mixed with any other herbicide labeled for use on corn provided the compatibility of the tank mix is verified by a jar test and tank mixing with SureStart is not prohibited by the label of the tank mix product. The compatibility of a tank mixture can be determined by mixing the ingredients of the herbicide mixture in their relative proportions in a glass jar as described for fluid fertilizer mixtures in Appendix I by substituting water for fluid fertilizer. Refer to the label of the tank mix product for applicable use directions, precautions, and limitations, including additional weeds controlled. Do not exceed application rates on the respective product labels. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.

## Use of Spray Adjuvants

SureStart is a preemergence herbicide for which spray adjuvants have little or no influence on performance. However, several herbicides used in tank mixtures with SureStart require use of adjuvants to aid in the control of emerged weeds. Use only those adjuvants recommended on the label of the tank mix product and approved for use in growing crops. Surfactants and/or low-rate liquid fertilizers (28%, 30%, or 32% UAN) or ammonium sulfate (AMS) adjuvants may be used with tank mixes applied preplant or preemergence to the crop.

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## Appendix I

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### Procedure for Testing the Compatibility of SureStart and Tank Mixes with Fluid Fertilizers

Since fluid fertilizers vary, the following procedure is suggested for determining whether SureStart herbicide may be combined with a specific fluid fertilizer for spray tank application.

#### Materials Needed:

1. SureStart and any tank mix products
2. Fluid fertilizer to be used
3. Adjuvant for fertilizer tank mix: Use any adjuvant cleared for use on growing crops under 40 CFR 180.1001 to improve the compatibility of SureStart with fluid fertilizers. The adjuvant that provides the best emulsification depends upon the specific fertilizer under consideration.
4. Two 1-quart, wide mouth glass jars with lid or stopper
5. Measuring spoons (a 25 ml pipette or graduated cylinder provides more accurate measurement)
6. Measuring cup, 8 oz (257 ml)

#### Procedure:

1. Pour a pint (about 473 ml) of the fluid fertilizer into each of the quart jars.
2. Add SureStart and any tank mix combination to the jars. The order of addition is wettable powders first with mixing, followed by flowables with mixing and the ECs last. The rate of wettable powders and dry flowables is 1 1/2 teaspoon per pound of product per acre to be applied. ECs should be added at the rate of 1/2 teaspoon for each pint per acre to be applied. Premixing the wettable powders in 1 oz of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
3. Add 1/2 teaspoon (2 ml) adjuvant to one of the jars, label it as "with," and mix. The rate of 1/2 teaspoon per pint is equal to 3 pints of adjuvant per 100 gallons of fluid fertilizer.
4. Close both jars with lids or stoppers and mix the contents by turning the jars upside down 10 times.
5. Inspect the surface and body of the mixtures:
  - a. Immediately after completing the jar inversions
  - b. After allowing the jars to stand undisturbed for 30 minutes
  - c. And then again after turning the jars upside down 10 times after the 30-minute inspection



**Evaluation:**

If either mixture remains uniform for 30 minutes, the combination may be used. Should either mixture separate after 30 minutes, but readily remix uniformly with 10 jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the one without adjuvant is not, be sure to use the adjuvant in the spray tank. Add the adjuvant first at a rate of 3 pints per 100 gallons of fluid fertilizer. Foaming may be minimized by using moderate agitation. **If non-dispersible oil, sludge, or clumps of solids form in the mixtures, the combination should not be used.**

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## Appendix II

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**Dry Bulk Fertilizer Impregnation**

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling SureStart fertilizer mixtures.

When applying SureStart alone or in tank mixes with dry bulk fertilizers, follow all directions for use and precautions on the respective tank mix product labels regarding use rates, soil texture, application methods, and rotational restrictions. Use a minimum of 200 lb of dry bulk fertilizer per acre.

**Approved Dry Fertilizer Ingredients for Use with SureStart<sup>1</sup>**

Fertilizer	N	P	K
Ammonium Phosphate-Sulfate	16	20	0
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Monoammonium Phosphate	11	56	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Urea <sup>2</sup>	45	0	0

<sup>1</sup> Do not impregnate on fertilizers containing ammonium nitrate, potassium nitrate, or sodium nitrate.

<sup>2</sup> Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.

For impregnating pesticides on dry fertilizers, use suitable mixers equipped with suitable spraying equipment. The spray nozzles should be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. SureStart should be sprayed uniformly onto the fertilizer using a fine spray pattern. Tank mix components may be applied as separate ingredients with powders and dry flowables added first or they may be mixed in a slurry in the proper ratio and added jointly. SureStart may also be impregnated on dry bulk fertilizer in the field while the fertilizer is being spread using a pneumatic applicator equipped to impregnate herbicides.

The following table provides a reference to determine the amount of SureStart to be mixed per ton of dry bulk fertilizer for a range of herbicide rates.

Fertilizer Rate (lb/acre)	Acres Covered (per ton)	SureStart Rate (pints/acre)					
		1.5	1.75	2.0	2.5	2.75	3.0
Pints Herbicide/Ton Fertilizer							
200	10	15	17.5	20	25	27.5	30
300	6.7	10	11.7	13.4	16.8	18.4	20.1
400	5	7.5	8.8	10	12.5	13.8	15
500	4	6	7	8	10	11	12
600	3.3	5	5.8	6.6	8.3	9.1	9.9

700	2.9	4.4	5.1	5.8	7.3	8	8.7
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To determine the amount of SureStart needed for other rates of fertilizer, use this formula:

$$\frac{\text{SureStart (pints/acre)}}{\text{Pounds of fertilizer/acre}} \times 2000 = \frac{\text{Pints of SureStart}}{\text{per ton of fertilizer}}$$

If the herbicide/fertilizer mixture is too wet, use of a drying agent is required to provide a dry, free-flowing mixture. For mixtures to be used in spinning-disc applicators, Micro-Cel E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying agent. Mixtures to be used in pneumatic applicators should use Micro-Cel E or Agsorb 16/30 RVM-MS granular clay (Oil-Dri Corporation). The drying agents should be added separately and uniformly to the prepared pesticide/fertilizer mixture, in a quantity that is sufficient to provide a suitable free-flowing mixture. Generally, less than 2% Micro-Cel E or 5% Agsorb 16/30 RVM-MS by weight is required.

**Precaution:** To avoid potential for explosion, do not impregnate SureStart on ammonium sorbate nitrate, potassium nitrate, or sodium nitrate fertilizer or fertilizer blends. Do not impregnate on a single (0-20-0) or triple (0-46-0) super phosphate. Do not attempt to impregnate SureStart on agricultural limestone as the herbicide will not be adequately absorbed.

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### Terms and Conditions of Use

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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 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 Limitation of Remedies.

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### Warranty Disclaimer

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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 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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### Inherent Risks of Use

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It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Corteva Agriscience or the seller. To the extent consistent with applicable law, 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.

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### Limitation of Remedies

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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 amount of product used.

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