



## 2021 ENLIST™ PUBLIC WEBINAR SERIES ANNOUNCED

The Enlist™ system team is excited to announce our webinar series for winter / spring 2021! Webinars are open to the public. The sessions, led by Enlist field specialists, are aimed at helping growers, applicators and ag industry professionals get the most out of the Enlist weed control system.

### Application training webinar options (the same content is repeated in each webinar):

These hour-long sessions cover how to achieve effective weed control on acres of Enlist E3® soybeans, tank-mixing with Enlist™ herbicides, field planning scenarios and spray requirements. If you're new to the system or need a refresher, you're sure to learn helpful information for effective applications.

#### North sessions (for all Enlist E3 geographies without cotton)

Monday, Jan. 25	9 to 10 a.m. Central	<a href="#">Register here</a>
Friday, Feb. 5	8 to 9 a.m. Central	
Wednesday, March 3	8 to 9 a.m. Central	
Thursday, April 1	8 to 9 a.m. Central	
Friday, May 7	12 to 1 p.m. Central	

#### South series (for geographies with PhytoGen® Enlist cotton & E3 soybeans)

Wednesday, Jan. 27	8 to 9 a.m. Central	<a href="#">Register here</a>
Thursday, Feb. 18	9 to 10 a.m. Central	
Thursday, March 18	12 to 1 p.m. Central	
Wednesday, April 28	8 to 9 a.m. Central	
Thursday, May 27	8 to 9 a.m. Central	

### A Step Ahead webinar series:

A Step Ahead webinar series that features short, 30-minute sessions each month. Farmers and applicators will have the opportunity to learn firsthand about a wide variety of weed control topics - from spring herbicide programs to tank-mixing and nozzle selection.

Friday, Jan. 29	Trait system advantages, field planning and Enlist™ Ahead rewards	9 a.m. Central	<a href="#">Register here</a>
Tuesday, Feb. 23	Spring burndown programs and pre-emergence herbicide programs with the Enlist™ system	12 p.m. Central	
Friday, March 12	Herbicide partners for the Enlist™ system, tank mixing and nozzle selection	9 a.m. Central	
Tuesday, March 23	Enlist One® herbicide + Liberty® herbicide field trial insights	9 a.m. Central	
Friday, April 16	Scouting, label review and application window	12 p.m. Central	
Wednesday, May 12	Susceptible and compatible crops for the Enlist™ system, making on-target applications and tank cleanout	9 a.m. Central	

After registering, participants will receive a confirmation email containing instructions for joining the webinar. If you have questions about webinars, please contact Enlist Field Specialist Brady Faggard at [brady.faggard@corteva.com](mailto:brady.faggard@corteva.com).

*Enlist Tech Center virtual tour links and support.*

<https://www.youtube.com/channel/UCHDTcupNAeM9uUAlat1WuVw>

## **Enlist YouTube**

New series with Steve Snyder shot in Aug. 2020 – this is the “virtual **Tech Center Tour**”

Tech center videos – <https://www.youtube.com/c/Enlistweedcontrolsystem/playlists>

1. Part 1: Introduction to the Enlist™ Weed Control System
2. Part 2: Enlist™ Corn
3. Part 3: Enlist E3® Soybeans: Application Window and Trait Tolerance
4. Part 4: Program Approach
5. Part 5: Tank-mixing with Enlist™ Herbicides
6. Part 6: Field Placement
7. Part 7: Properties of 2,4-D Choline
8. Part 8: Tank Contamination and Symptomology ID
9. Part 9: Tank-mix Partner Testing, Spray Best Practices, Spray Timely for Effective Control
10. Part 10: On-Target Application
11. Part 11: Nozzle Selection

# ENLIST™ WEED CONTROL SYSTEM

## 2021 PRODUCT USE GUIDE

Enlist™ herbicides, used with Enlist E3® soybeans, Enlist® cotton and Enlist corn



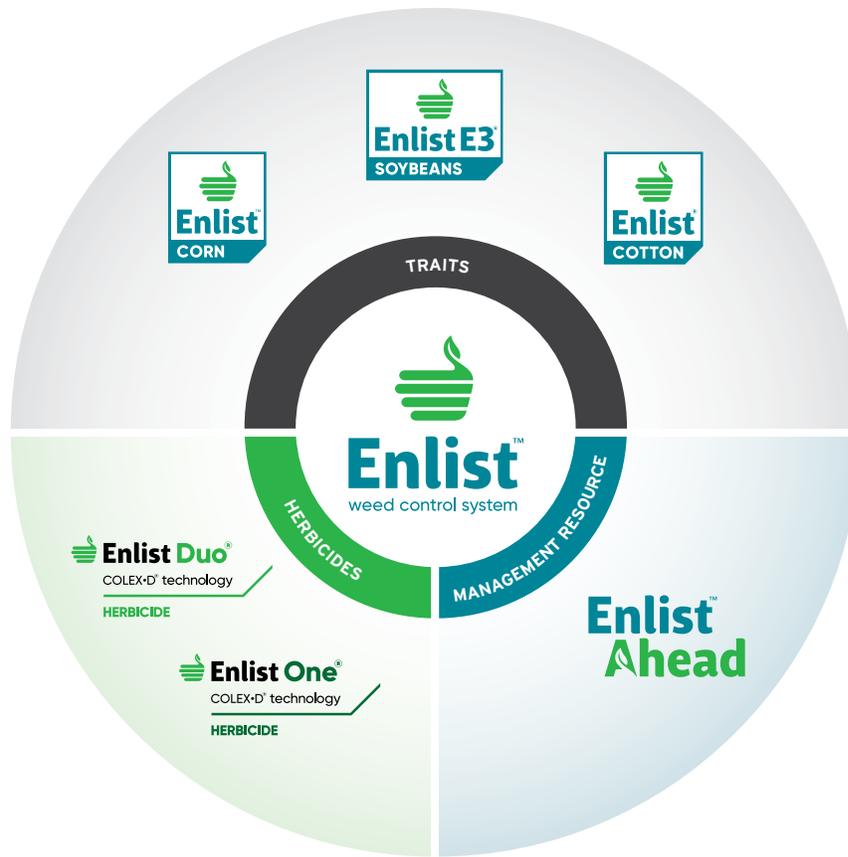
# Enlist™ Ahead

## What you'll find inside:

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For additional information and resources about the Enlist™ weed control system, visit [Enlist.com](http://Enlist.com).

# The Enlist™ weed control system



The Enlist™ weed control system is here for the long haul, and here's why: It's based in science and backed by stewardship. This unrivaled system starts with Enlist herbicide-tolerant traits that enable the use of our powerful Enlist herbicides. And to make sure you get the most from the system, the Enlist Ahead management resource provides tools, training and rewards.

HERBICIDE TOLERANCES		
ENLIST E3® SOYBEANS	ENLIST® COTTON	ENLIST™ CORN
2,4-D choline	2,4-D choline	2,4-D choline
Glyphosate	Glyphosate	Glyphosate
Glufosinate	Glufosinate	FOP herbicides <sup>1</sup>

<sup>1</sup>Assure II herbicide (quizalofop) is a Group 1 herbicide for grass control, which is currently registered for in-crop use with Enlist™ corn.



COLEX•D® technology

HERBICIDE

**Straight-goods 2,4-D choline with additional tank-mix flexibility**



COLEX•D® technology

HERBICIDE

**Convenient proprietary blend of 2,4-D choline and glyphosate**

Enlist Duo® herbicide with Colex-D® technology combines the proven performance of 2,4-D choline and glyphosate in a convenient, proprietary blend. Enlist One® herbicide is a straight-goods 2,4-D choline product with Colex-D technology that provides additional tank-mix flexibility with products listed on EnlistTankMix.com, such as Durango® DMA®, Liberty® herbicide, residual herbicides, fungicides and insecticides.

Following burndown, Enlist Duo and Enlist One with Colex-D technology are the only herbicides containing 2,4-D that are labeled for preemergence and postemergence use on Enlist™ crops.

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## Get the best results with the Enlist™ Ahead management resource

Enlist™ Ahead is a management resource that helps you get the best results from the Enlist weed control system while protecting herbicide-tolerant technology for the future, helping you:

- Make on-target applications on your crops
- Select and use different sites of action in the same growing season
- Prevent herbicide resistance from developing in your fields (Learn more on this topic on Pages 34 and 35)

As part of Enlist Ahead, you can:

- Download the Enlist Ahead app for readily accessible information on your iOS device.
- Visit Enlist.com for an overview of the system, an online training module and other technical information.
- Visit EnlistTankMix.com for qualified tank mix partner listing.
- Get support from your local Corteva Agriscience crop protection representative and Enlist field specialist.

Following the best practices presented in Enlist Ahead will help you achieve optimum results and sustain the long-term performance of the Enlist weed control system. It also is important to read and follow the refuge requirements and Insect Resistance Management (IRM) requirements in the Corteva Agriscience *Product Use Guide*.



## Take control of tough weeds with Enlist Duo<sup>®</sup> and Enlist One<sup>®</sup> herbicides

Use Enlist<sup>™</sup> herbicides as the cornerstone of a season-long program approach for weed management on crops with Enlist traits.

Enlist<sup>™</sup> herbicides control tough and herbicide-resistant weeds, including, but not limited to:

- ✔ Common ragweed
- ✔ Giant ragweed
- ✔ Lambsquarters
- ✔ Marestail<sup>2</sup>
- ✔ Morningglory
- ✔ Pigweed (including Palmer amaranth<sup>2</sup>)
- ✔ Velvetleaf
- ✔ Waterhemp

For a full listing of weeds controlled, reference the labels for Enlist One<sup>®</sup> and Enlist Duo<sup>®</sup> herbicides.

### On-target characteristics of 2,4-D choline with Colex-D<sup>®</sup> technology

Enlist<sup>™</sup> herbicides are different from 2,4-D ester, amine and other traditional formulations:

- Near-zero volatility
- Reduced physical drift potential
- Better handling characteristics



### Select the right application rate

Apply 4.75 pints of Enlist Duo<sup>®</sup> herbicide or 2 pints of Enlist One<sup>®</sup> herbicide per acre to young, actively growing annual weeds, according to the product label directions.<sup>3</sup> Spray when weeds are 6 inches tall or less.

#### Key practices to remember:

- Use labeled rates for best weed management.
- Spray when weeds are 6 inches tall or less.
- Spray when weeds are actively growing.

The product labels for Enlist Duo and Enlist One also contain important information about application equipment requirements, restrictions and precautions, and weed management.

APPLICATION RATE	
Enlist Duo <sup>®</sup> herbicide	4.75 pt./A
Enlist One <sup>®</sup> herbicide	2 pt./A

<sup>2</sup>May require a broader management plan including timely application and use of a soil residual herbicide.

<sup>3</sup>Always read and follow the product label as well as state and local requirements.

<sup>4</sup>Products listed on EnlistTankMix.com have not been tested for crop response or physical tank-mix compatibility. Listing on website does not imply agronomic recommendation or endorsement of use.

## Postemergence passes on Enlist™ acres

Enlist™ traits enable multiple options for postemergence herbicide sprays, allowing design of a program approach that fits that acre. Consider your weed pressure, weather conditions and agronomic situation when assessing which Enlist herbicide and tank-mix partners work best.

ENLIST DUO® HERBICIDE	ENLIST ONE® HERBICIDE + LIBERTY® HERBICIDE	ENLIST ONE HERBICIDE + DURANGO® DMA® HERBICIDE
Enlist Duo herbicide @ 4.75 pt./A	Enlist One herbicide @ 2 pt./A	Enlist One herbicide @ 2 pt./A
Ammonium sulfate (AMS) as needed	Liberty herbicide @ 32 fl. oz./A 1.5 to 3 lb./A of AMS	Glyphosate @ high rate Durango DMA herbicide is the preferred glyphosate tank-mix partner for Enlist One herbicide. AMS as needed

Check [EnlistTankMix.com](http://EnlistTankMix.com)<sup>4</sup> for all qualified AMS and glyphosate products.





## Use Enlist™ herbicides as part of a program approach

You'll have the greatest success in weed management if you use an Enlist™ herbicide as part of a program approach for weed control in Enlist crops. This improves weed control, reduces weed competition during key stages of crop growth and helps manage herbicide resistance.

### Key items to remember:

- Enlist herbicides can be used in burndown, preemergence and postemergence on crops with the Enlist trait.
- Up to three applications may be made per season at the high rate:
  - One application in burndown or preemergence
  - Up to two applications postemergence, at least 12 days apart
- Always use a true broad-spectrum soil residual herbicide<sup>5</sup> (not Group 4 or Group 9) in your weed management plan.
- Consider using a layered residual, such as S-metolachlor, in your post passes for longer-lasting weed control.

START CLEAN WITH TILLAGE OR BURNDOWN

HERBICIDE

**Elevore**  
Arylex<sup>®</sup> active  
HERBICIDE

Enlist™ herbicides – (no plant-back restriction to Enlist E3<sup>®</sup> soybeans)

PLANT ENLIST E3<sup>®</sup> SOYBEANS



APPLY SOIL RESIDUAL HERBICIDE

HERBICIDE

**Afforia**<sup>®</sup>  
**Enlite**<sup>®</sup>  
**Envive**<sup>®</sup>  
**Sonic**<sup>®</sup>  
**Surveil**<sup>®</sup>  
**Trivence**<sup>®</sup>

APPLY ENLIST™ AND GLYPHOSATE HERBICIDES  
No later than R2 or full flowering stage

HERBICIDE

**Enlist Duo**<sup>®</sup>  
COLEX-D<sup>®</sup> technology  
HERBICIDE

**Enlist One**<sup>®</sup>  
COLEX-D<sup>®</sup> technology  
HERBICIDE

**EverpreX**<sup>®</sup>

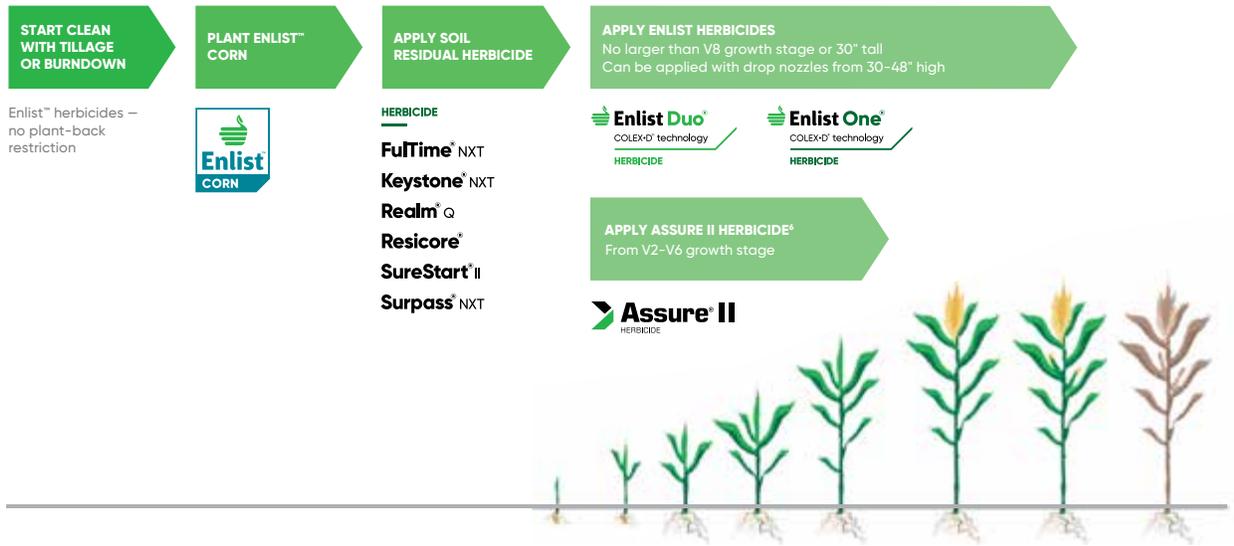
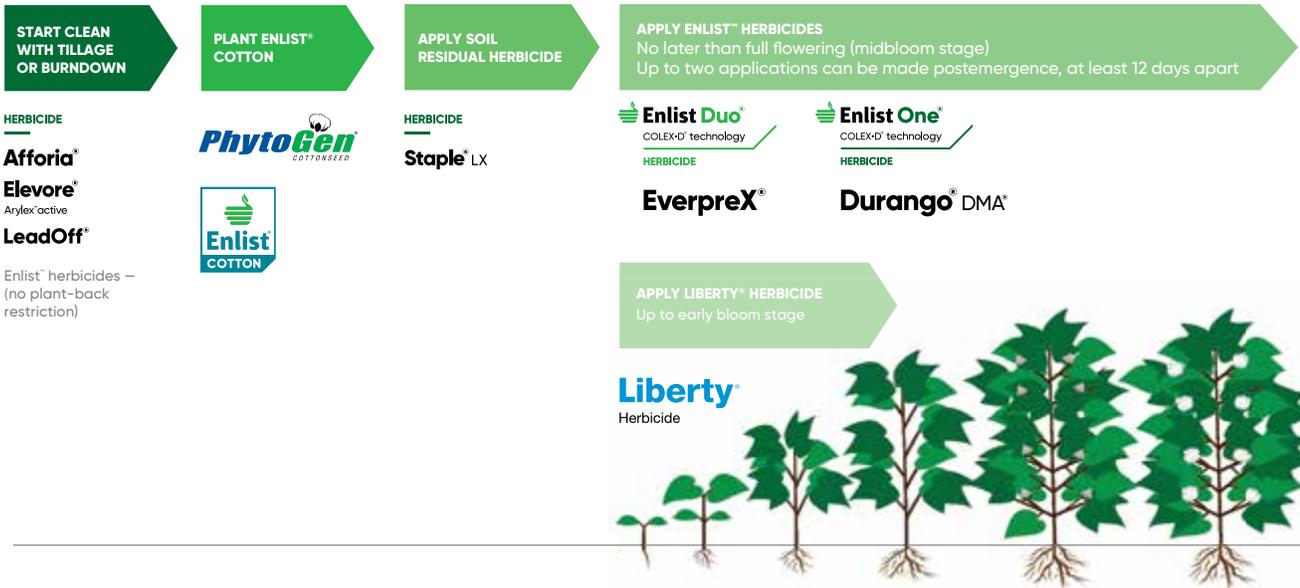
**Durango**<sup>®</sup> DMA<sup>®</sup>

APPLY LIBERTY<sup>®</sup> HERBICIDE  
No later than R1 or beginning bloom

**Liberty**<sup>®</sup>  
Herbicide



<sup>5</sup>Talk with your retailer for recommendations on preemergence herbicides for your farm.



<sup>7</sup>Assure II herbicide is the only FOP herbicide currently labeled for post use on Enlist corn. FullTime NXT and Keystone NXT are Restricted Use Pesticides.



## Herbicide Partners Help Conquer Tough Weed Challenges

Successful weed control means keeping weeds at bay throughout the growing season. The Enlist™ weed control system allows you to employ Enlist herbicides as the cornerstone of a herbicide program approach to overcome your toughest weed challenges. You also can incorporate the industry-leading residual herbicide portfolio from Corteva Agriscience for season-long control.

### **Durango<sup>®</sup> DMA<sup>®</sup>**

**HERBICIDE**

#### Preferred glyphosate: Durango<sup>®</sup> DMA<sup>®</sup> herbicide

**The most frequent tank-mix recommendation with Enlist One<sup>®</sup> herbicide for broad-spectrum grass and broadleaf control.** The flexibility of Enlist One herbicide allows you to customize your tank-mix options as well as the ratio of herbicides in your tank mix based on weed pressure on the acre being sprayed. And, because of the inherent stability of 2,4-D choline, adding Durango<sup>®</sup> DMA<sup>®</sup> herbicide in the tank with Enlist One does not increase the potential for volatility due to acidification.

Tank-mixing is easy with Enlist One: Follow the tank-mix sequence, and you'll see no salting out.

Know your rates:

- Enlist One herbicide: 2 pt./A (32 fl. oz./A)
- Durango DMA: 2 pt./A (32 fl. oz./A)

#### APPLICATION WINDOW FOR DURANGO<sup>®</sup> DMA<sup>®</sup> HERBICIDE

Enlist E3 <sup>®</sup> soybeans	No later than R2 or full flowering stage
PhytoGen <sup>®</sup> Enlist <sup>®</sup> cotton	No later than midbloom stage

**Learn more:**

[Durango DMA Herbicide Product Page](#)

Video: [Use Enlist One<sup>®</sup> + Durango<sup>®</sup> DMA<sup>®</sup> Herbicides to Control Weeds](#)

# Liberty®

Herbicide

## Preferred glufosinate: Liberty® herbicide

Primary tank-mix recommendation with Enlist One® herbicide for **acres with high pressure of glyphosate-resistant broadleaf weeds**, especially Palmer amaranth, waterhemp and kochia:

- Most frequent tank-mix recommendation for the Cotton Belt, where higher levels of resistance and weed pressure are most prevalent
- Combination of Enlist One herbicide + Liberty® herbicide provides multiple unique, effective sites of action on Enlist E3® soybean and Enlist® cotton acres
- And, because of the inherent stability of 2,4-D choline, adding Liberty herbicide in the tank with Enlist One does not increase the potential for volatility due to acidification

Know your rates:

- **Enlist One herbicide:** 2 pt./A (32 fl. oz./A)
- **Liberty herbicide:** 2 pt./A (32 fl. oz./A)

APPLICATION WINDOW FOR LIBERTY® HERBICIDE	
Enlist E3® soybeans	No later than R1 or beginning bloom
PhytoGen® Enlist® cotton	Up to early bloom stage

OPTIMIZING A TANK MIX OF ENLIST ONE® HERBICIDE + LIBERTY® HERBICIDE ON ENLIST™ CROPS	
Weed height	3 inches tall or less
Carrier volume	20 GPA is recommended for best performance of Liberty herbicide, especially when grasses or dense weeds are present; 15 GPA minimum required with tank mix of Enlist One + Liberty herbicide.
Adjuvants	Use 1.5 to 3 lb./A of AMS. <i>May be any combination of qualified dry AMS, liquid AMS or AMS-containing products found on EnlistTankMix.com.</i>
Qualified nozzle selection	Use nozzle and corresponding spray pressure from the qualified list for Enlist One. Optimize coverage with qualified nozzles by using a less coarse nozzle with a higher operating pressure.
Weather at spray	Avoid low humidity and cloudy conditions to maximize efficacy of Liberty herbicide.
Time of day	Recommended spraying time is between 2 hours after dawn and 2 hours before sunset to maximize efficacy of Liberty herbicide.
Wind speed	Maximum 10 mph

Even these weeds don't stand a chance:



Palmer amaranth<sup>2</sup>



Waterhemp



Kochia

Learn more:

**Video:** [Learn more about using Enlist One and Liberty herbicides together](#)

**Fact sheet:** [Enlist One® Plus Liberty® Herbicide](#)

<sup>2</sup>May require a broader management plan including timely application and use of a soil residual herbicide.

## Preferred soybean residuals: Sonic<sup>®</sup> and Trivence<sup>®</sup> herbicides

Residual herbicides play a critical role in keeping Enlist E3<sup>®</sup> soybean fields clean. Using a high-quality soil residual introduces different sites of action and helps keep the weed pressure in check, setting you up for better success when you make postemergence applications that include an Enlist™ herbicide.

Sonic<sup>®</sup> and Trivence<sup>®</sup> herbicides fit very well into a program approach with either Enlist One<sup>®</sup> or Enlist Duo<sup>®</sup> herbicide.

# Sonic<sup>®</sup>

**HERBICIDE**

### Recommendation for Corn Belt and Plains states: Sonic<sup>®</sup> herbicide

- Two sites of action: sulfentrazone, cloransulam
- Application flexibility: Spray up to three days postplant
- Works in a tank mix with Enlist One<sup>®</sup> or Enlist Duo<sup>®</sup> herbicide

Sonic<sup>®</sup> herbicide is a trusted product that includes two sites of action, providing great residual efficacy on both large- and small-seeded broadleaf weeds as well as offering grass suppression. Plus, you get the flexibility to apply Sonic up to three days postplant.

# Trivence<sup>®</sup>

**HERBICIDE**

### Recommendation for the Midsouth states, Kentucky, Ohio and Michigan: Trivence<sup>®</sup> herbicide

- Three sites of action: chlorimuron, flumioxazin, metribuzin
- Use for burndown and residual control

Trivence<sup>®</sup> herbicide offers three sites of action to deliver reliable control of challenging broadleaf weeds in soybeans while helping preserve the efficacy of existing herbicide options. It's effective against Palmer amaranth, marestail, waterhemp, giant ragweed, morningglory, lambsquarters and more.

## Preferred postemergence tank-mix residual: DuPont™ EverpreX® herbicide

Using a postapplied residual herbicide lengthens weed control while providing an additional site of action as the crop moves toward canopy.

### EverpreX®

#### HERBICIDE

EverpreX® herbicide provides flexibility and an additional site of action for farmers who plant Enlist E3® soybeans.

- Reliable residual control of grasses and broadleaf weeds with S-metolachlor
- Can be tank-mixed with Enlist One® or Enlist Duo® in postemergence passes
- Labeled for use in Enlist E3 soybeans, Enlist® cotton and Enlist™ corn
- Eligible for saving through Enlist Ahead Rewards programs

#### Learn more:

Video: [Using a Program Approach with Residuals in Enlist E3® soybeans](#)

[Soybean Residuals](#)

Video: [Success Stories](#)





## Tank-mixing with Enlist™ herbicides



### Applying an Enlist™ herbicide in a tank mix with other products

The wide application window for an Enlist™ herbicide offers opportunities for tank mixes with other qualified products, such as other herbicides, insecticides, fungicides, micronutrients and adjuvants.

#### Key items to remember:

- A tank mix of an Enlist herbicide and other qualified herbicides allows applicators to spray multiple sites of action on tough weeds.
- For pigweed and waterhemp pressure, farmers should consider a tank mix of Enlist One® herbicide + Liberty® herbicide, the preferred glufosinate tank-mix partner with Enlist One.
- For heavy grass pressure, and glyphosate-susceptible broadleaves, farmers can either use Enlist Duo® herbicide, a convenient blend of 2,4-D choline and glyphosate, or Enlist One + glyphosate. Durango® DMA® herbicide is the preferred glyphosate tank-mix partner with Enlist One.
- Layering residual herbicides as part of a tank mix with Enlist herbicides helps provide season-long control of tough broadleaf weeds and grasses.
- Only tank-mix partners listed on [EnlistTankMix.com](https://www.enlist.com/enlist-tank-mix)<sup>1</sup> may be used with Enlist Duo® herbicide or Enlist One® herbicide.
- Farmers and applicators can select from many qualified ammonium sulfate (AMS) products and defoamers, as well as many other adjuvant options, listed on [EnlistTankMix.com](https://www.enlist.com/enlist-tank-mix).<sup>4</sup>

<sup>1</sup>Products listed on [EnlistTankMix.com](https://www.enlist.com/enlist-tank-mix) have not been tested for crop response or physical tank-mix compatibility. Listing on website does not imply agronomic recommendation or endorsement of use.

## Tank-mix sequence procedures

- Start with a clean sprayer before mixing a load with Enlist One® or Enlist Duo® herbicide.
- Recommended water carrier volume with Enlist herbicides is 10 to 15 gallons per acre.
- Use qualified nozzles and corresponding pressure ranges. See Pages 18 and 19.

Begin with half-full tank of water carrier.

Begin agitation and continue throughout mixing process.

Add products one at a time, in the following order:

1. AMS/water conditioning agents	6. Capsule suspension (CS) or suspension emulsion (SE)
2. Preslurry water-soluble packets	7. Emulsifiable concentrate (EC) • Such as S-metolachlor
3. Wettable powders/dry flowables	8. Soluble liquids (SL) • Glyphosate products, including Durango® DMA® and Abundit® Edge herbicides • Glufosinate products, including Liberty® herbicide • Enlist Duo® herbicide at 4.75 pt./A or Enlist One® herbicide at 2 pt./A
4. Compatibility agents	9. Crop oil concentrate (COC), NIS, other adjuvants
5. Liquid flowables	10. Top off with water carrier



### Note on mixing with glyphosate products:

When mixing with Enlist One, do not pour glyphosate products into the tank at the same time as Enlist One and do not allow concentrated products to come into contact. Add products one at a time, allowing enough time for recirculation between additions of each separate product. Failure to add products one at a time, lack of sufficient water during mixing or not allowing sufficient agitation may result in salting out.

## Ammonium sulfate/water-conditioning agents

The addition of an ammonium sulfate (AMS) or water-conditioning agent helps maintain optimum performance of Liberty® herbicide and glyphosate products tank-mixed with Enlist™ herbicides on annual and perennial weeds, particularly under hard water conditions or drought conditions. The addition of AMS products does not affect the inherently low-volatility characteristics of the 2,4-D choline in Enlist herbicides. The most current list of qualified ammonium sulfate and water-conditioning agents is available at [EnlistTankMix.com](http://EnlistTankMix.com).<sup>4</sup>

## Anti-foam/defoamers

The addition of an anti-foaming agent is highly encouraged for ease of mixing and sprayer cleanout. The most current list of qualified anti-foam/defoamers is available at [EnlistTankMix.com](http://EnlistTankMix.com).<sup>4</sup>

Check [EnlistTankMix.com](https://enlisttankmix.com) when planning your application.

QUALIFIED TANK-MIX PARTNERS	
ARE:	ARE NOT:
Products that passed the U.S. Environmental Protection Agency (EPA)-mandated drift testing protocol, which is part of the conditions of registration for Enlist™ herbicides.	<ul style="list-style-type: none"><li>• Tested for crop response</li><li>• Tested for physical tank-mix compatibility</li><li>• An agronomic recommendation</li><li>• An endorsement of any kind from Corteva Agriscience</li><li>• An indicator of performance</li></ul>

As part of the conditions of registration for Enlist™ herbicides, the EPA established a tank-mix testing protocol. One reason the drift testing protocol exists is to protect sensitive areas, where endangered species may have habitat, from spray drift.

All qualified tank-mix products have passed established standards for spray performance. The most current list, which has the only tank-mix partners allowed by the EPA, is available at [EnlistTankMix.com](https://enlisttankmix.com).<sup>4</sup>

Refer to all individual product labels, supplemental labeling and fact sheets for all products in the tank mixture, and observe all precautions and limitations on the labels, including application timing restrictions, soil restrictions, minimum plant-back interval and rotational guidelines. Use according to the most restrictive precautionary statements for each product in the tank mixture.

The addition of tank-mix products may cause increased crop response such as leaf speckling. Applications of emulsifiable concentrate products, or crop oils – including crop oil concentrates (COC), methylated seed oil concentrate (MSOC), high surfactant oil concentrates (HSOC) and vegetable-based oils – are more likely to result in a crop response.

## Tank-mixing with grass herbicides

When tank-mixing grass herbicides such as clethodim with Enlist One® herbicide, increase the rate of the grass herbicide by one-third to overcome potential antagonism. In addition, use recommended adjuvants for the grass herbicides.

To ensure the use of multiple sites of action for broadleaf control, include a broad-spectrum tank-mix partner or a sequential post pass in your weed control program.

If you have further questions about proper handling and use of these products, or if you become aware of potential misuse or incidents involving these products, please contact Corteva Agriscience at **855-ENLIST1 (855-365-4781)**.

<sup>4</sup>Products listed on [EnlistTankMix.com](https://enlisttankmix.com) have not been tested for crop response or physical tank-mix compatibility. Listing on website does not imply agronomic recommendation or endorsement of use.



# Selecting the right nozzles to optimize coverage and manage drift



The right nozzles can maximize product performance by managing the interaction between application volume, nozzle flow rate, nozzle type, operating pressure, travel speed, nozzle spacing and droplet size category.

## Key items to remember:

- Use a labeled nozzle that provides the best possible coverage while appropriately managing spray droplets.
- Use no less than 10 gallons of water carrier volume; 10 to 15 gallons recommended for Enlist™ herbicides.
- Take advantage of the flexibility provided by the listed nozzles and pressure ranges to select one that allows you to balance crop coverage and droplet size.

Only use nozzle and pressure combinations specifically listed on the Enlist Duo® or Enlist One® herbicide labels.<sup>3</sup>

## Enlist Duo® herbicide LABELLED NOZZLES WITH PRESSURE RANGES (PSI)

MANUFACTURER	MODEL	0	10	20	30	40	50	60	70	80	90	100
ABJ AGRI	ABJ 110-04				MIN 40	MAX 40						
	ABJ 110-06				MIN 40	MAX 40						
GREENLEAF	TDXL 110-03				MIN 30	MAX 40						
	TDXL 110-04				MIN 30	MAX 45						
	TDXL 110-06				MIN 30				MAX 75			
	TDXL 110-03-D				MIN 30						MAX 90	
	TDXL 110-04-D				MIN 30							MAX 90
	TDXL 110-06-D				MIN 30							
	TDXL 110-08-D				MIN 30					MAX 80		
HYPRO JOHN DEERE	ULD 120-04			MIN 15							MAX 70	
	ULD 120-06			MIN 15				MAX 50				
LECHLER	ID 110-04				MIN 30	MAX 40						
	ID 110-05				MIN 30			MAX 60				
TEEJET	AI 110-04				MIN 30				MAX 60			
	AI 110-06				MIN 30				MAX 60			
	AI 110-08				MIN 30					MAX 70		
	AITTJ 60-110-06				MIN 20	MAX 40						
	AIXR 110-03			MIN 15	MAX 30							
	AIXR 110-04			MIN 15				MAX 40				
	AIXR 110-06			MIN 15				MAX 40				
TTI 110-04				MIN 15							MAX 85	
WILGER	MR 110-06				MIN 30				MAX 60			
	MR 110-08				MIN 30				MAX 60			

<sup>3</sup>Always read and follow the product label as well as state and local requirements.

# Enlist One® herbicide LABELLED NOZZLES WITH PRESSURE RANGES (PSI)

MANUFACTURER	MODEL	10	20	30	40	50	60	70	80	90	100
ALBUZ	AVI 110-025				MIN 40		MAX 60				
	AVI 110-03				MIN 40			MAX 80			
	AVI 110-04				MIN 40				MAX 90		
	AVI 110-05				MIN 40				MAX 90		
	AVI 110-06				MIN 40				MAX 90		
GREENLEAF	TADF 025-D			MIN 30						MAX 90	
	TADF 03-D			MIN 30						MAX 90	
	TADF 04-D			MIN 30						MAX 90	
	TADF 05-D			MIN 30						MAX 90	
	TADF 06-D			MIN 30						MAX 90	
	TDXL 110-03*			MIN 30					MAX 80		
	TDXL 110-04*			MIN 30					MAX 80		
	TDXL 110-06*			MIN 30						MAX 90	
	TDXL 110-08			MIN 30						MAX 90	
	TDXL 110-02-D			MIN 30						MAX 90	
	TDXL 110-025-D			MIN 30						MAX 90	
	TDXL 110-03-D*			MIN 30				MAX 70			
	TDXL 110-04-D*			MIN 30						MAX 90	
	TDXL 110-06-D*			MIN 30						MAX 90	
	TDXL 110-08-D*			MIN 30							MAX 100
TDXL 025-D			MIN 30						MAX 80		
HYPRO JOHN DEERE	ULD 120-04*		MIN 15							MAX 80	
	ULD 120-05		MIN 15							MAX 70	
	ULD 120-06*		MIN 15							MAX 65	
LECHLER	ID 110-03			MIN 30			MAX 60				
	ID 110-04*			MIN 30						MAX 80	
	ID 110-05*			MIN 30			MAX 60				
TEEJET	AI 110-02			MIN 30						MAX 80	
	AI 110-025			MIN 30						MAX 80	
	AI 110-03			MIN 30						MAX 80	
	AI 110-04*			MIN 30						MAX 80	
	AI 110-05*			MIN 30						MAX 80	
	AI 110-06*			MIN 30						MAX 80	
	AI 110-08*			MIN 30						MAX 80	
	AITTJ60 110-04			MIN 20			MAX 50				
	AITTJ60 110-06*			MIN 20						MAX 60	
	AIXR 110-04*		MIN 15							MAX 60	
	AIXR 110-05*		MIN 15							MAX 60	
	AIXR 110-06*		MIN 15							MAX 60	
	TTI 110-02			MIN 15							MAX 80
	TTI 110-025			MIN 15							MAX 80
	TTI 110-03			MIN 15							MAX 80
TTI 110-04*			MIN 15							MAX 80	
TTI 110-05			MIN 15							MAX 80	
TTI 110-06			MIN 15							MAX 80	
WILGER	MR 110-06*			MIN 30			MAX 60				
	MR 110-08*			MIN 30				MAX 70			
	MR 110-10			MIN 30				MAX 70			

Asterisks in this table indicate specific nozzles qualified with both Enlist One® and Enlist Duo® herbicides.

# Field planning and application best management practices

## Start with field planning

Field planning is being aware of your surroundings in terms of compatible crops and susceptible crops.

Good field planning is just good common sense; it'll help maximize your success and the results of the Enlist™ weed control system. Prior to an application of an Enlist herbicide, carefully note the wind speed, wind direction, and the crops and landscape that are adjacent to the field you plan to spray.

Watch wind direction during an application – be aware of shifting winds during your application. DO NOT SPRAY Enlist herbicides when wind is blowing toward adjacent susceptible crops.



### Check wind speed and direction

- Recommended wind speed range is 3 to 10 mph; federal label maximum wind speed is 15 mph. Check with your state on maximum wind speed.
- Always understand what crops and landscape are downwind prior to making an application of Enlist™ herbicides when deciding whether to spray or wait for better wind conditions.
- Be aware of shifting winds during your application.



### Avoid downwind susceptible crops

An important part of stewardship with the Enlist™ weed control system is staying aware of your surroundings. It is especially important to protect susceptible crops that have a high relative sensitivity to the 2,4-D choline in Enlist herbicides.

DO NOT SPRAY Enlist herbicides when the wind is blowing toward adjacent susceptible crops.

#### DO NOT SPRAY SUSCEPTIBLE CROPS

Cotton without Enlist® trait

Grapes

Cucurbits

Fruiting vegetables

Tomatoes

Tobacco

#### KNOW WHAT'S AROUND YOU

An important part of stewardship with the Enlist™ weed control system is staying aware of your surroundings. It is especially important to protect susceptible crops that have a high relative sensitivity to the 2,4-D choline in Enlist herbicides.

An advantage of having a compatible adjacent crop to an Enlist™ field is you may apply an Enlist herbicide when the wind is blowing within labeled wind speed range toward that compatible crop.

#### COMPATIBLE CROP EXAMPLES

Soybeans without Enlist™ trait

Corn

Wheat

Alfalfa

Rice

Peanuts

Sorghum

## Controlling spray drift to improve on-target application

To minimize the potential for herbicide drift, consider these factors when deciding when and how to apply an Enlist™ herbicide:

- Be mindful that wind and wind speed are within label parameters.
- Use only labeled nozzles and pressure ranges.
- Avoid temperature inversions.
- Confirm the method of application is consistent with the label.

Always read and follow the product label as well as state and local requirements related to application of pesticides. Apply an Enlist herbicide only with properly calibrated ground application equipment.

### Remember:

**Do not apply an Enlist™ herbicide under circumstances where spray drift may occur to food, forage or other plantings that might be damaged or rendered unfit for sale, use or consumption.** Do not allow contact of the herbicide with foliage, green stems or exposed nonwoody roots of crops or desirable plants, including trees and cotton without the Enlist® trait, because severe injury or destruction may result. Even small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

Before making an application, please refer to your state's sensitive-crop registry (if available) to identify any commercial specialty or certified organic crops that may be located nearby. At the time of your application, the wind cannot be blowing toward adjacent commercially grown tomatoes and other fruiting vegetables (EPA Crop Group 8), cucurbits (EPA Crop Group 9), grapes or cotton without the Enlist trait. Examples of EPA Crop Group 9 cucurbits include watermelon, pumpkin, squash and cucumbers.

### Know and follow state and local requirements

When you apply an Enlist™ herbicide, you must follow all state and local pesticide application requirements for Enlist Duo® and/or Enlist One® herbicides. Where states have more stringent regulations, they must be observed. Enlist Duo and Enlist One are not registered for sale or use in all states or counties.

# Field planning scenarios: Outside the Cotton Belt

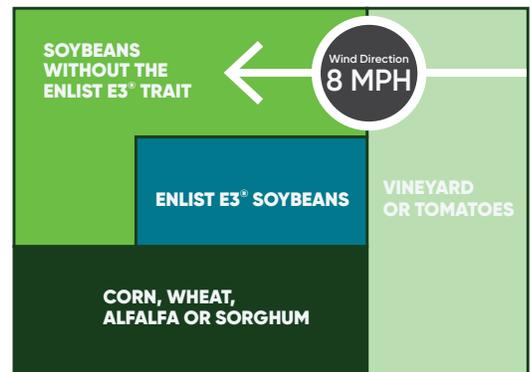
## IS IT OK TO SPRAY ENLIST ONE® OR ENLIST DUO® HERBICIDE?



If an adjacent susceptible crop is downwind, **DO NOT SPRAY** an Enlist™ herbicide. Use Liberty® herbicide and/or glyphosate to stay ahead of weeds if necessary. Buffer distances do not protect downwind adjacent susceptible crops. The best scenario is to wait until wind is blowing directly away from the vineyard, tomatoes or other susceptible crop.

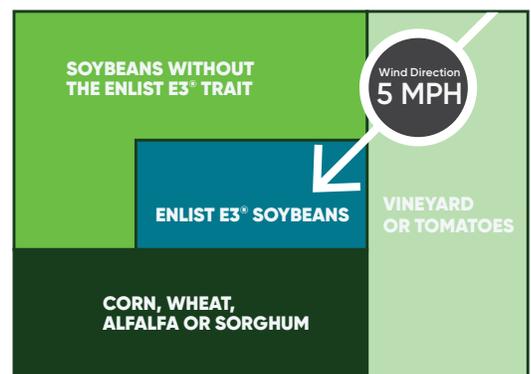


It's OK to spray when wind is blowing away from susceptible crops and toward soybeans without the Enlist E3® trait. Soybeans without the Enlist E3 trait are not a susceptible crop, meaning you can spray when the wind is blowing toward them with no field separation.



It's OK to spray and there are no wind directional restrictions when wind is blowing toward an adjacent compatible crop, such as corn, wheat, alfalfa or sorghum.

Watch for shifting wind during the application. If wind shifts toward the susceptible crop, stop spraying.

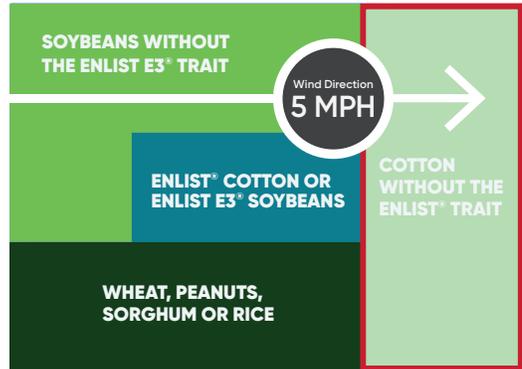


# Field planning scenarios: Inside the Cotton Belt

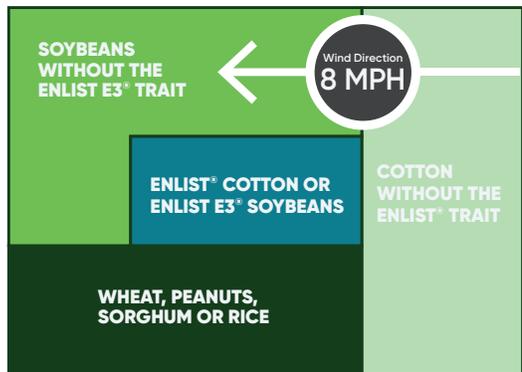
## IS IT OK TO SPRAY ENLIST ONE® OR ENLIST DUO® HERBICIDE?



If an adjacent susceptible crop is downwind, **DO NOT SPRAY** an Enlist™ herbicide. Use Liberty® herbicide or glyphosate to stay ahead of weeds if necessary. Buffer distances do not protect downwind adjacent susceptible crops. The best scenario is to wait until wind is blowing directly away from the cotton without the Enlist trait.

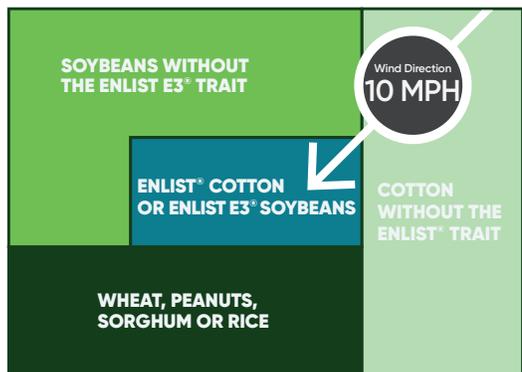


It's OK to spray when wind is blowing away from cotton without the Enlist trait and toward soybeans without the Enlist E3® trait. Soybeans without the Enlist E3 trait are not a susceptible crop, meaning you can spray when the wind is blowing toward them with no field separation.



It's OK to spray and there are no wind directional restrictions when wind is blowing toward an adjacent compatible crop, such as soybeans, corn, wheat, alfalfa, peanuts or rice.

Watch for shifting wind during the application. If wind shifts toward the cotton without the Enlist trait, stop spraying.



## Avoiding temperature inversions

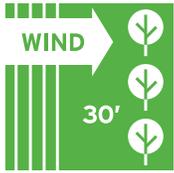
A temperature inversion occurs when a layer of warm air covers a layer of cooler air and acts like a lid, preventing the cooler air from rising and dissipating into the upper atmosphere. During a temperature inversion, spray particles can become trapped in the warmer layer of air and stay suspended until wind movement increases, resulting in off-target movement. Never spray if you suspect a temperature inversion is present. You run the risk of damaging susceptible plants in nearby fields, lawns and gardens. Wait until later in the day and check again for a more favorable application environment.

Before every application, use steps like these to make sure a temperature inversion is not occurring:

- Monitor temperatures using weather apps for your smartphone when planning an application and always check conditions in the field. If the temperature is within 5 degrees of the overnight low, closely check wind speed and particle movement in the field.
- Measure wind speed using an anemometer. If wind is less than 3 mph, do not spray.
- Use smoke or powder to indicate particle movement. The smoke or powder should drift gently with the wind. If it gathers in a stationary, suspended cloud, that indicates a temperature inversion – do not spray.
- Measure the temperature at ground level (approximately 3 feet) and at 7 feet above ground. If the difference is more than a few degrees, it is considered an inversion.

### DO NOT APPLY AN ENLIST™ HERBICIDE IF YOU SUSPECT A TEMPERATURE INVERSION





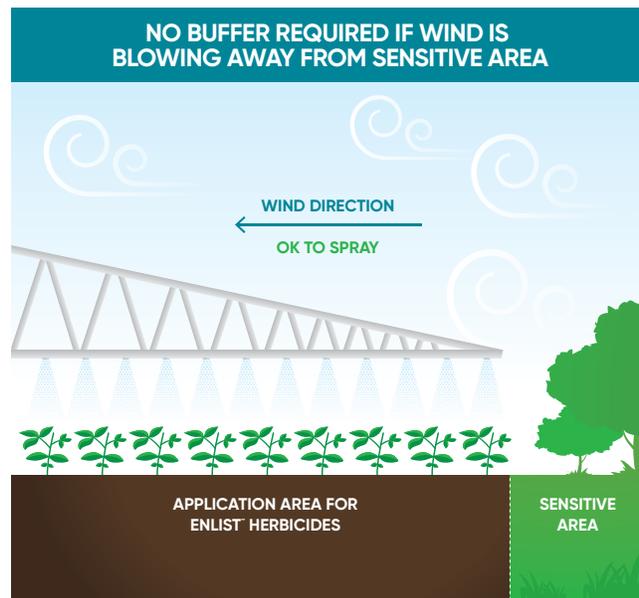
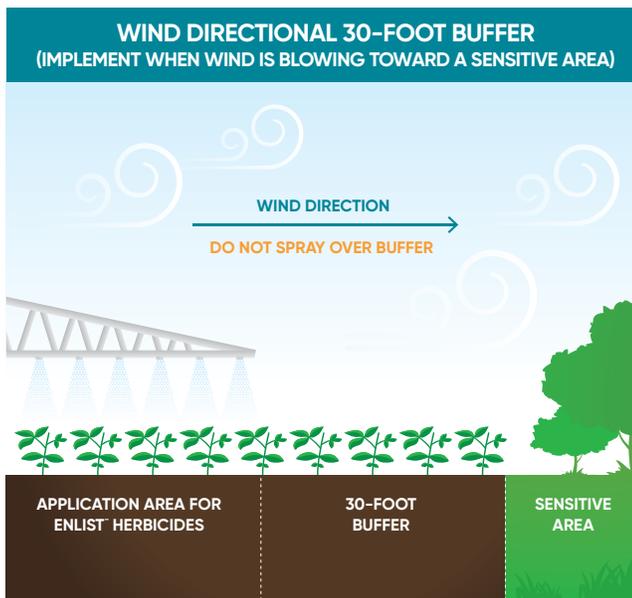
## Steps to protect sensitive areas

The labels for Enlist One® and Enlist Duo® herbicides require a downwind buffer from sensitive areas, which may be a habitat for endangered species.

To minimize the chance for an Enlist™ herbicide to come in contact with sensitive areas, you must maintain a 30-foot downwind buffer (in the direction in which the wind is blowing) from any area except:

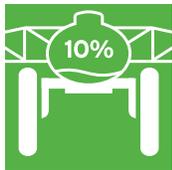
- 1 Roads (paved or gravel surfaces)
- 2 Planted agricultural fields (except those crops mentioned in the susceptible plants section)
- 3 Agricultural fields that have been prepared for planting
- 4 Areas covered by the footprint of a building, shade house, greenhouse, silo, feed crib or other man-made structure with walls and/or roof

To maintain the required downwind buffer zone, measure wind direction prior to the start of any swath that is within 30 feet of a sensitive area. No application swath can be initiated in or into an area that is within 30 feet of a sensitive area if the wind direction is toward the sensitive area.





## Cleanout and record keeping



### Clean out the sprayer and all spray equipment after applying an Enlist™ herbicide

After applying an Enlist™ herbicide, be sure to clean out the sprayer before making your next application to any other crop. Thorough cleanout of the entire sprayer – including spray tank, boom, screens, filters, hoses and nozzles – is the first step to minimize the potential for sprayer contamination and damage to susceptible crops. Also, remember to keep other equipment, such as pumps, clean before switching to the next product. Follow the most stringent cleanout recommendation of any tank-mix partner included in the tank with Enlist herbicides.

TRIPLE-RINSE SPRAYER	UNLESS THE NEXT CROP YOU'RE SPRAYING IS GLYPHOSATE-TOLERANT CORN
As outlined in this <i>Product Use Guide</i>	Single-rinse sprayer with at least 10% of sprayer volume



- 1 Completely drain the system (including pump, lines and spray boom) for at least five minutes.
- 2 Fill the tank with clean water to at least 10% of the total tank volume.
- 3 Circulate through system for at least 15 minutes.
- 4 Spray out the solution through the boom/nozzles.



- 1 Completely drain the spray system (including lines and spray boom) for at least five minutes.
  - 2 Remove and clean the filters and strainers.
  - 3 Fill the tank with clean water to at least 10% of total tank volume (including cleaning agents at recommended rates, if desired).
  - 4 Circulate through the entire system for at least 15 minutes.
  - 5 Let the solution stand for several hours, preferably overnight if time allows.
  - 6 Spray out the solution through the boom/nozzles.
- 



- 1 Completely drain the spray system (including lines and boom) for at least five minutes.
- 2 Fill the tank with clean water to at least 10% of the total tank volume.
- 3 Circulate through the entire system for at least 15 minutes.
- 4 Spray out the solution through the boom/nozzles.
- 5 Completely drain the spray system; and remove and clean nozzle tips and strainers separately.

## Record your application details

As part of good farm management practices, maintain detailed records of spraying, including:

- Field location and number of acres sprayed
- Crop sprayed and stage of growth
- Date of application, start time and finish time
- Herbicide sprayed and application rate
- Nozzles used and operating pressure
- Travel speed and application rate
- Air temperature and relative humidity
- Wind speed and direction
- Sprayer and boom cleanout

# Application summary

## Apply with confidence

Successful use of Enlist™ herbicides begins with proper application. Below is a summary of best management practices for applying an Enlist herbicide. Visit [Enlist.com/Apply](https://enlist.com/Apply) for a downloadable Application Guide. Always read and follow label requirements.

### BEFORE SPRAYING



#### Application window

Apply Enlist™ herbicides within the appropriate growth stage windows.

**Enlist® cotton:** No later than midbloom stage

**Enlist E3® soybean:** No later than R2 or full flowering stage

**Enlist corn:** No larger than V8 growth stage or 30 inches tall, whichever happens first



#### Tank-mix partners

Use multiple effective sites of action, including partner herbicides.

**Durango® DMA® herbicide:** As the tank-mix partner for grasses and glyphosate-susceptible broadleaves

**Liberty® herbicide:** As the tank-mix partner for the toughest broadleaves



#### Nozzles

Select the best qualified nozzle and pressure that optimizes coverage for your application scenario.



#### Sprayer contamination

Clean your sprayer before using Enlist herbicides to avoid contamination from a prior application.

### PAY SPECIAL ATTENTION TO WIND AND WEATHER CONDITIONS



#### Wind speed, weather

**Wind speed:** Drift potential is lowest at wind speeds less than 10 mph. Target applications at wind speeds greater than 3 mph but less than 10 mph.

**Caution:** Do not apply at wind speeds greater than 15 mph.

**Consult:** Some states have additional restrictions on wind speed. Check your state regulations on wind speed.

**Temperature inversions:** Do not spray during a temperature inversion.

**Caution:** Inversions are more common between dusk and dawn



#### Susceptible crops

Spray when wind is blowing away from susceptible crops listed on the Enlist herbicide labels. This includes: tomatoes, fruiting vegetables, cucurbits, grapes, cotton without the Enlist trait and tobacco.

**Caution:** There is no acceptable buffer distance when the wind is blowing toward an adjacent susceptible crop. **DO NOT SPRAY** if wind is blowing toward a susceptible crop.

## APPLICATION



### Spray volume

Use a spray volume of 10 to 15 gallons or more per acre for ground equipment and apply with calibrated ground equipment.

Do not apply less than 10 gallons of total spray volume per acre. In general, increase spray volume as crop canopy, height and weed density increase to obtain adequate spray coverage.<sup>3</sup>



### Spray rate

Use spray rates from the product label when weeds are shorter than 6 inches and crops are within the appropriate growth stage window.

**Enlist Duo® herbicide:** Spray 4.75 pints per acre.

**Enlist One® herbicide:** Spray 2 pints per acre.



### Spray pressure

Use an appropriate spray pressure within the labeled range for optimum coverage.

Ground speed, product volume and nozzle selection all factor into the appropriate spray pressure.



### Boom height

To minimize spray drift potential, maintain a boom height as specified by the nozzle manufacturer, usually 24 inches or less above crop canopy.<sup>3</sup>

## AFTER SPRAYING



### Cleanout

After applying an Enlist™ herbicide, follow the proper steps to clean out your sprayer. Triple-rinse is required for all cleanouts unless the next crop you are spraying is glyphosate-resistant corn.

<sup>3</sup>Always read and follow the product label as well as state and local requirements.



## Soybeans, cotton and corn with the Enlist™ trait

### What to know about Enlist E3® soybean varieties

When you plant Enlist E3® soybean varieties, you get crop tolerance to 2,4-D choline, glyphosate and glufosinate. Enlist E3 soybeans provide crop tolerance that enables you to use Enlist Duo® or Enlist One® herbicide as part of a program approach for weed control.

HERBICIDE TOLERANCE OF ENLIST E3® SOYBEAN VARIETIES
2,4-D CHOLINE
GLYPHOSATE
GLUFOSINATE

### When growing Enlist E3® soybeans near conventional soybeans and/or soybeans without the Enlist E3 trait (coexistence)

Soybeans are a naturally self-pollinating crop with very low risk of mixing by cross-pollination. Consult [biotradestatus.com](http://biotradestatus.com) for regulatory approval information.

### Use only herbicides authorized for application on Enlist E3® soybeans

Following burndown, Enlist Duo® and Enlist One® with Colex-D® technology are the only herbicides containing 2,4-D that are labeled for preemergence and postemergence use on Enlist E3® soybeans.

The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Dow AgroSciences LLC and MS Technologies LLC.

## What to know about Enlist® cotton

When you plant any Enlist® cotton variety, you get crop tolerance to 2,4-D choline, glyphosate and glufosinate herbicides. Enlist cotton provides crop tolerance that enables you to use Enlist Duo® or Enlist One® herbicide as part of a program approach for weed control.

HERBICIDE TOLERANCE OF ENLIST® COTTON VARIETIES
TRAIT STACK: WIDESTRIKE® 3 INSECT PROTECTION, ROUNDUP READY® FLEX, ENLIST®
2,4-D CHOLINE
GLYPHOSATE
GLUFOSINATE

## Stalk destruction for Enlist® cotton

All Enlist® cotton varieties are tolerant to 2,4-D choline, glyphosate and glufosinate herbicides; therefore, stalk destruction for Enlist cotton may differ from traditional chemical stalk destruction procedures. Herbicide active ingredients other than 2,4-D must be used for stalk destruction for Enlist cotton. Recommended options include dicamba, Duplosan® and thidiazuron with crop oil concentrate. For full details, see [Enlist.com](http://Enlist.com) or your PhytoGen or Corteva Agriscience representative.

For more information on the Boll Weevil Eradication Program and complete requirements, visit the Texas Department of Agriculture website: [TexasAgriculture.gov/RegulatoryPrograms/CottonStalkDestruction](http://TexasAgriculture.gov/RegulatoryPrograms/CottonStalkDestruction).

## When growing Enlist® cotton near conventional cotton and/or cotton without the Enlist trait (coexistence)

Cotton is a naturally cross-pollinated crop, and a small amount of cotton pollen movement to nearby fields is not uncommon. You can reduce undesired pollen movement with a few simple steps:

- Maintain a noncotton buffer between fields containing crops with biotechnology traits and conventional crop fields.
- Consider field location relative to the field containing biotech traits: Cotton fields oriented upwind will have less cross-pollination compared with fields located downwind.
- Discuss your plans with relevant neighbors in advance.

## Use only herbicides authorized for application with Enlist® cotton

Following burndown, Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are labeled for preemergence and postemergence use with Enlist® cotton.



## What to know about Enlist™ corn

When you plant any corn hybrid with the Enlist™ corn trait, you get crop tolerance to 2,4-D choline, glyphosate and aryloxyphenoxypropionate (FOP) herbicides. Enlist corn provides crop tolerance that enables you to use Enlist Duo® or Enlist One® herbicide as part of a program approach for weed control.

	HERBICIDE TOLERANCE OF ENLIST™ CORN HYBRIDS		
	SMARTSTAX® ENLIST™	POWERCORE® ENLIST™	ENLIST™ ROUNDUP READY® CORN 2
2,4-D CHOLINE	Tolerant	Tolerant	Tolerant
GLYPHOSATE	Tolerant	Tolerant	Tolerant
FOP HERBICIDES	Tolerant	Tolerant	Tolerant
GLUFOSINATE	Tolerant	Tolerant	Not tolerant <sup>7</sup>
CYCLOHEXANEDIONE (DIM) HERBICIDES	Not tolerant	Not tolerant	Not tolerant

## Controlling volunteer corn

Because Enlist™ corn is tolerant to 2,4-D choline, glyphosate and FOP herbicides, use a cyclohexanedione (DIM) herbicide, such as Select Max or Poast Plus, to control volunteer Enlist corn in subsequent years.

### <sup>7</sup>HERBICIDE TOLERANCE

Some Bt corn hybrids are available with Roundup Ready® and LibertyLink® herbicide tolerance traits, making them tolerant to over-the-top applications of glyphosate and glufosinate-ammonium herbicides. Verify the weed control system before making over-the-top herbicide applications. Always read and follow label directions. Use of a herbicide over the top of a corn hybrid that does not contain the tolerance trait for the herbicide will cause crop damage.

## When growing Enlist™ corn near conventional corn and/or corn without the Enlist trait (coexistence)

Corn is a naturally cross-pollinated crop, and a small amount of corn pollen movement to nearby fields is not uncommon. You can reduce undesired pollen movement with a few simple steps:

- Maintain a noncorn buffer between fields containing crops with biotechnology traits and conventional crop fields.
- Consider field location relative to the field containing biotech traits: Cornfields oriented upwind will have less cross-pollination compared with fields located downwind.
- Discuss your plans with relevant neighbors in advance.

## Use only herbicides authorized for application on Enlist™ corn

Following burndown, Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are labeled for preemergence and postemergence use with Enlist™ corn. Assure II herbicide (quizalofop) is the only FOP herbicide expressly labeled for preemergence and postemergence use on Enlist corn.





## Using the Enlist™ weed control system to help prevent herbicide resistance development

Glyphosate technology became the farm industry standard for weed control for many farmers. But using glyphosate as the primary, or only, herbicide site of action has resulted in glyphosate-resistant and hard-to-control weeds, including waterhemp, marestail, Palmer amaranth and giant ragweed. Repeated use of any single herbicide may reduce effectiveness for weed control.

You can help manage weed resistance with an understanding of herbicide resistance and taking steps to prevent it.

### How weed resistance spreads

For the first few years a herbicide is used, **targeted** weeds are controlled; however, after repeated application of the same herbicide – or herbicides with the same site of action – a few naturally occurring **resistant** weeds can remain in the field each year. As time goes on and resistant weeds thrive, the weed population starts to contain an even larger number of resistant weeds. Over time, the resistant weeds become the dominant population – rendering the herbicide no longer effective on that species.

The Enlist™ weed control system provides an effective tool to use against these herbicide-resistant weeds including glyphosate, ALS- and HPPD-resistant weeds. Use the Enlist system as part of an integrated weed management program to deliver the exceptional performance you need.



### Take advantage of different herbicide sites of action

It is a best practice to minimize selection for herbicide-resistant weed populations by proactively diversifying weed control strategies. A diversified weed management program may include the use of multiple herbicides with different sites of action and an overlapping weed control spectrum in combination with other practices, such as tillage operations and/or other cultural practices where appropriate. Using the labeled rate for herbicides and following directions for use is important to help prevent the onset of resistance.

The Weed Science Society of America (WSSA) classifies 2,4-D as a Group 4 herbicide (synthetic auxin) and glyphosate as a Group 9 herbicide (inhibitor of EPSP synthase). As with some herbicides, some naturally occurring weed biotypes that are resistant to 2,4-D or glyphosate may exist due to genetic variability in a weed population.

## Steps to help prevent weed resistance

Implementing a successful weed resistance management program will help ensure the continued efficacy of the Enlist™ weed control system. These steps are important to the ongoing success of your program.

### 1 Use a herbicide PROGRAM APPROACH – with multiple sites of action

- Start with a clean field, using either a burndown herbicide application or tillage. Use a broad-spectrum soil residual herbicide with different sites of action in a weed control program, followed by a timely postemergence application of an Enlist herbicide.
- If resistance is suspected, treat weed escapes with a herbicide that has a site of action other than Group 4 or 9 (if Enlist Duo® herbicide was used) or Group 4 (if Enlist One® herbicide was used) and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing seed, root or tuber production.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of an Enlist herbicide with non-Group 4 and non-Group 9 herbicides (when using Enlist Duo) or non-group 4 (when using Enlist One).
- **Never use Enlist One alone.** Always plan a program approach with Enlist One plus additional qualified tank-mix partners containing non-Group 4 herbicides or sequential postemergence applications of non-Group 4 herbicides.
- Avoid using more than two applications of an Enlist herbicide and any other Group 4 or Group 9 herbicide (when using Enlist Duo) or Group 4 (when using Enlist One) within a single growing season unless in conjunction with another site of action herbicide with an overlapping spectrum.

### 2 Make TIMELY APPLICATIONS of herbicides

- Apply full labeled rates of an Enlist herbicide to actively growing weeds once the majority reach 3 to 6 inches in height.

### 3 SCOUT WEEDS before and after application

- Scout fields before application to ensure herbicides and use rates will be appropriate for the weed spectrum and weed size present.
- Scout fields after application to detect weed escapes or shifts in weed spectrum.
- Early detection of possible resistant species can limit the spread of these weed populations and allow for the implementation of alternate weed management practices.

### 4 SEE THE BIG PICTURE, beyond the field and the herbicide

- Incorporate nonchemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Manage weeds in and around fields, during and after harvest, to reduce weed seed production.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.

### 5 Agronomic and cultural PRACTICES

- Rotate crops and cultural practices to allow for a wider range of weed control practices.
- Use only commercial, weed-free crop seed.

Report any incidence of nonperformance of an Enlist™ herbicide against a particular weed species to a representative or 855-ENLIST1 (855-365-4781).



## What you'll need before using this technology

Before you can legally obtain, plant or grow crops containing the Enlist™ trait, you must have a valid, executed Corteva Agriscience Technology Use Agreement on file with Corteva Agriscience.

Please check with your Corteva dealer, distributor or licensed representative if you have questions on your Technology Use Agreement status. You may also visit [traitstewardship.com](https://traitstewardship.com) or call **800-258-3033** to sign your Technology Use Agreement.

You should always review your Technology Use Agreement and consult your trait provider's technical guides before planting – and always read and follow pesticide label directions. If you have questions about this guide or a crop containing Corteva Agriscience technologies and traits, contact your seed seller.

## Why crop and grain marketing stewardship matters



Corteva Agriscience is a member of Excellence Through Stewardship® (ETS). Corteva Agriscience™ products are commercialized in accordance with ETS Product Launch Stewardship Guidance and in compliance with the Corteva Agriscience policies regarding stewardship of those products. In line with these guidelines, our product launch process for responsible launches of new products includes a long-standing process to evaluate export market information, value chain consultations and regulatory functionality. Growers and end users must take all steps within their control to follow appropriate stewardship requirements and confirm their buyer's acceptance of the grain or other material being purchased. For more detailed information on the status of a trait or stack, please visit [biotradestatus.com](https://biotradestatus.com).

Excellence Through Stewardship® is a registered trademark of Excellence Through Stewardship.

## Why monitoring compliance is important

Stewardship is achieved by your adherence to the Technology Use Agreement, *Product Use Guides* and all applicable product labels. Identifying fields where Enlist™ crops are grown and what herbicides are applied to these fields is key information required to monitor compliance. Through third-party surveys and on-farm assessments, farmers may receive a request for information about fields planted with Enlist crops and herbicides used. **Failure to follow stewardship requirements will result in action by Corteva Agriscience that may include requiring additional education and training, monitoring, and up to and including loss of access to the technology.**

### Helpful resources for you

- **Website for the Enlist™ system:** [Enlist.com](https://enlist.com)
- **Qualified tank-mix products:** [EnlistTankMix.com](https://enlisttankmix.com)
- **Cotton stalk destruction:** [TexasAgriculture.gov/RegulatoryPrograms/CottonStalkDestruction.aspx](https://texasagriculture.gov/RegulatoryPrograms/CottonStalkDestruction.aspx)
- **Herbicide Resistance Action Committee:** [hracglobal.com](https://hracglobal.com)
- **Take Action:** [iwilltakeaction.com](https://iwilltakeaction.com)
- **Trait Regulatory and Market Status:** [biotradestatus.com](https://biotradestatus.com)
- **Trait Stewardship:** [traitstewardship.com](https://traitstewardship.com)
- **Weed Resistance Management Training:** [soygrowers.com](https://soygrowers.com)
- **Weed Science Society of America:** [wssa.net](https://wssa.net)

## Seed coat

### Understanding seed coat color variation in Enlist E3® soybeans

In addition to ease of use, exceptional weed control and high yield potential with Enlist E3® soybeans, farmers may occasionally see a seed coat color variation. This color variation in Enlist E3 soybeans is from naturally occurring substances found in soybeans. It typically appears as a light brown band connecting ends of the hilum and/or light brown shadows on each side of the hilum. It can range from very slight to a darker tint and varies in frequency, geography, growing season (year to year) and position on the plant or within pods. The seed coat color variation is not due to application of herbicides, such as 2,4-D choline.

Based on our years of study and experience, we're confident in the performance and grain quality of Enlist E3 soybeans. And when it comes to getting genetics with high yield potential and unparalleled weed control, we think you'll like what you see with the Enlist E3 soybeans.

To learn more about seed coat color variation, visit [Enlist.com](https://enlist.com).



## **Potential crop response after applications of Enlist™ herbicides**

You may see temporary crop response with Enlist E3® soybeans and Enlist® cotton within a few hours of applying Enlist™ herbicides. This cosmetic response does not impact yield. This "droop" or "sleepy" effect on the crop occurs while the plant is working to metabolize 2,4-D choline. It is more likely to occur in conditions where the plant is stressed, including hot daytime temperatures. The plants metabolize the 2,4-D choline and return to normal typically within 24 to 48 hours.

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[Enlist.com](http://Enlist.com)

