

ENLIST® WEED CONTROL SYSTEM



2023 PRODUCT USE GUIDE

ENLIST® HERBICIDES – USED WITH ENLIST E3® SOYBEANS, ENLIST COTTON AND ENLIST CORN



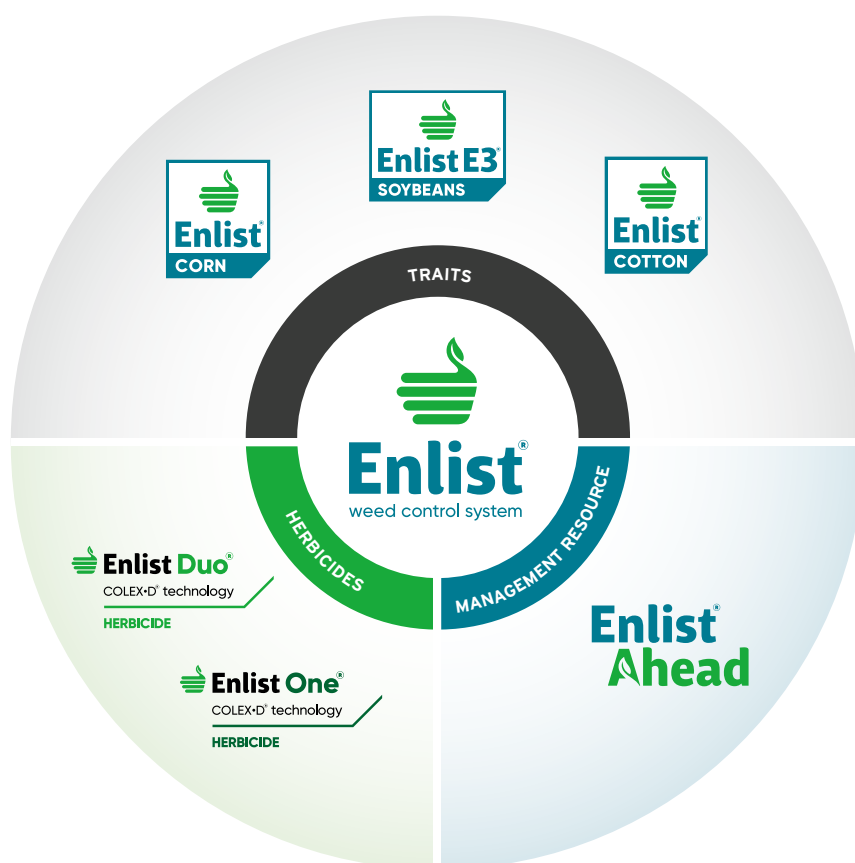
Enlist® Ahead

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For additional information and resources about the
Enlist® weed control system, visit 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. The Enlist Ahead management resource provides tools and training to make sure you get the most from the system.

HERBICIDE TOLERANCES			
ENLIST E3® SOYBEANS	ENLIST® W3FE COTTON	ENLIST® W3E1 COTTON	ENLIST® CORN
2,4-D choline	2,4-D choline	2,4-D choline	2,4-D choline
Glyphosate	Glyphosate	Glufosinate	Glyphosate
Glufosinate	Glufosinate		FOP herbicides ¹
			Glufosinate ²

¹Following registration approval, Assure® II herbicide is currently the only FOP herbicide for in-crop use with Enlist® corn. Assure II herbicide (quizalafop) is a Group 1 herbicide for grass control.

²SmartStax® Enlist® and PowerCore® Enlist hybrids include glufosinate tolerance. Non-Bt Enlist hybrids do NOT contain glufosinate tolerance.



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 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 Liberty® herbicide, glyphosate herbicides, residual herbicides, fungicides and insecticides. Enlist Duo® herbicide with Colex-D® technology combines the proven performance of 2,4-D choline and glyphosate in a convenient, proprietary blend.

Following burndown, Enlist Duo® and Enlist One® herbicides with Colex-D® technology are the only herbicides containing 2,4-D that are authorized for preemergence and postemergence use on Enlist® crops. For complete information on the obligations in the Corteva Agriscience™ Technology Use Agreement that governs the use of traits and authorized herbicides, visit traitstewardship.com. Use of any other 2,4-D-containing product with Enlist crops is a violation of the grower's Technology Use Agreement.

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 the 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 Page 36)

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 listings.
- Get support from your local Corteva Agriscience crop protection territory manager 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 Product Use Guides found at traitstewardship.com.

This reference guide is not intended as a substitute for the product label for product(s) referenced herein. Always read and follow all label directions and precautions for use when using any pesticide alone or in tank-mix combination. Failure to follow the label, including any supplemental label precautions, is considered a misuse under federal law.

Please visit Enlist.com for a copy of the product label.



Take control of tough weeds with Enlist Duo® and Enlist One® herbicides

Use Enlist® herbicides as the cornerstone of a season-long program approach for weed management on crops with Enlist traits.

Enlist® herbicides control tough and herbicide-resistant weeds, including, but not limited to:

- ✓ Common ragweed
- ✓ Giant ragweed
- ✓ Lambsquarters
- ✓ Marestalk³
- ✓ Morningglory
- ✓ Pigweed³ (including Palmer amaranth³)
- ✓ Velvetleaf
- ✓ Waterhemp³

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

On-target characteristics of 2,4-D choline with Colex-D® technology

Enlist herbicides are different from 2,4-D ester, amine and other traditional formulations:

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



Use the right application rate

Apply 4.75 pints of Enlist Duo herbicide or 2 pints of Enlist One herbicide per acre to young, actively growing weeds, according to the product label directions.⁴ 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.

POSTEMERGENCE APPLICATION RATE	
Enlist Duo® herbicide	4.75 pt./A
Enlist One® herbicide	2 pt./A

³May require a broader management plan including timely application and use of a soil residual herbicide.

⁴Always read and follow the product label as well as state and local requirements.

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 + GLYPHOSATE
Enlist Duo herbicide @ 4.75 pt./A	Enlist One herbicide @ 2 pt./A	Enlist One herbicide @ 2 pt./A
Ammonium sulfate (AMS) as needed	<ul style="list-style-type: none">• Liberty herbicide @ 2 pt./A• Liberty herbicide is the preferred glufosinate of the Enlist® weed control system.• 1.5 to 3 lb./A of AMS	<ul style="list-style-type: none">• Glyphosate @ high rate• AMS as needed
Check EnlistTankMix.com ⁵ for all qualified AMS and qualified glyphosate products.		



Use Enlist® herbicides as the cornerstone of your program approach

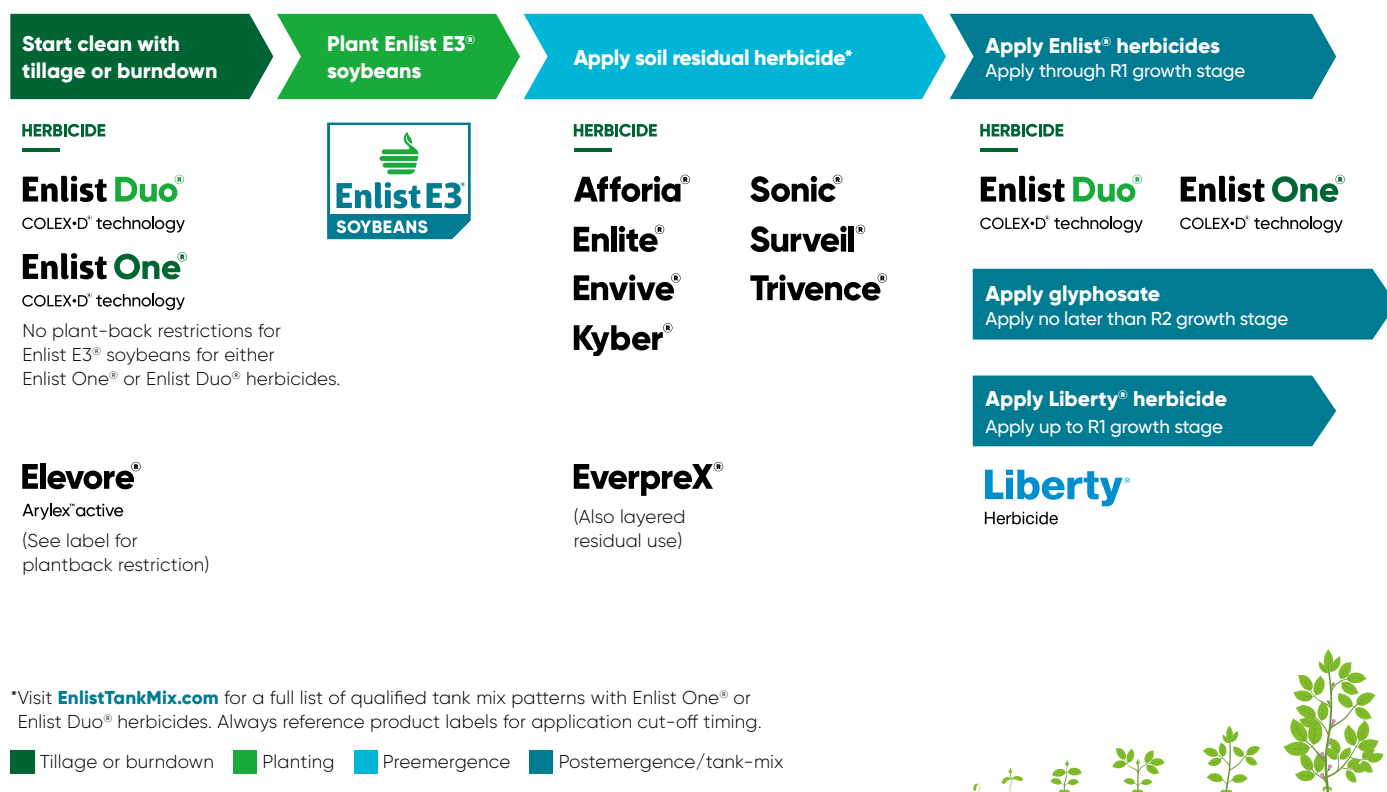
You'll have the greatest success in weed management if you use an Enlist® herbicide as part of a program approach for weed control in Enlist crops. This improves weed control, reduces weed competition during key stages of crop growth and helps manage herbicide resistance.

Key items to remember:

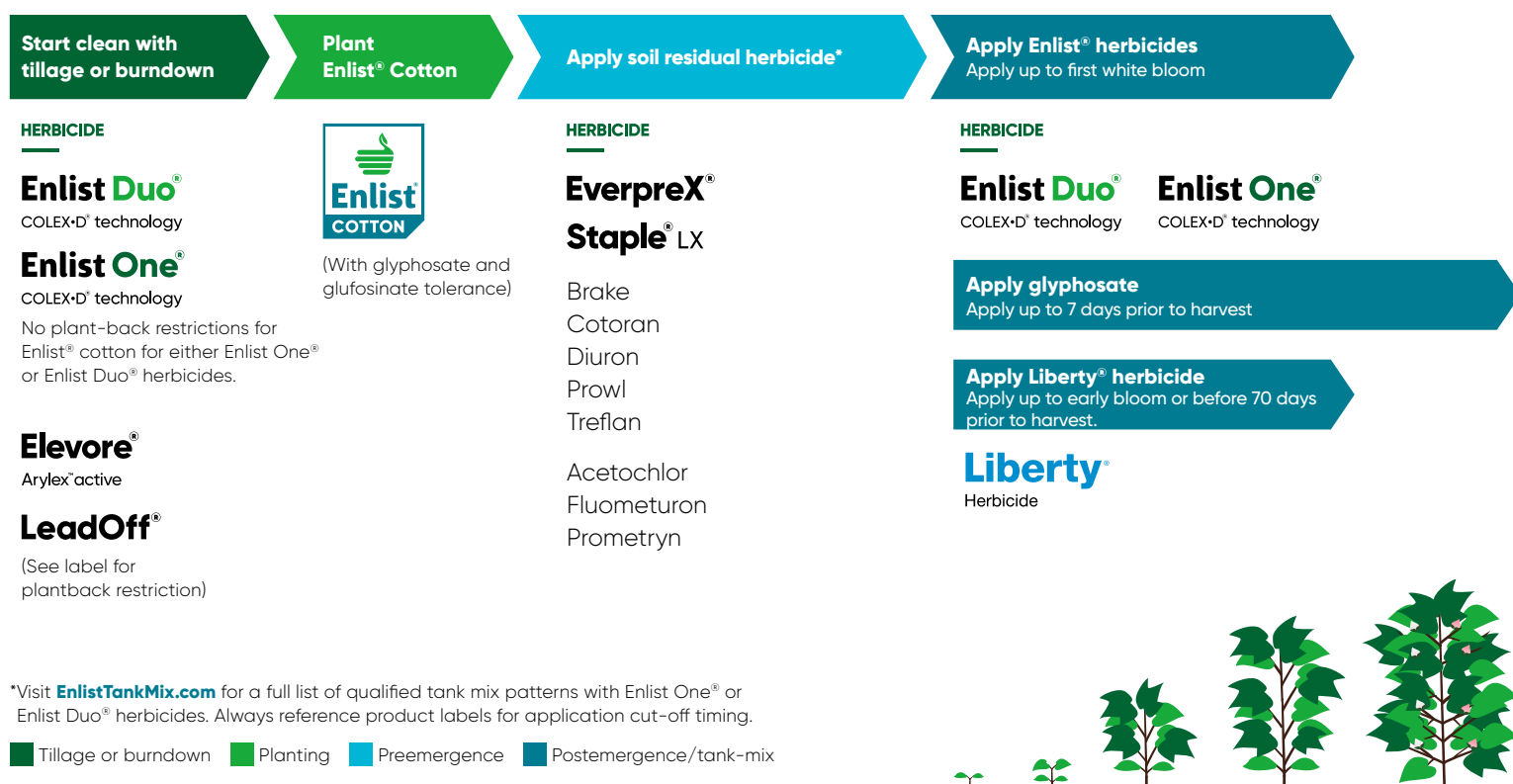
- Enlist® herbicides can be used in burndown, preemergence and postemergence on crops with the Enlist trait.
- Enlist herbicides are rainfast within four hours.
- Up to three applications may be made per season (2 pt./A per application for Enlist One® herbicide or 4.75 pt./A per application for Enlist Duo® herbicide, where consistent with runoff management practices; see Page 27 for further information):
 - One application in burndown or preemergence
 - Up to two applications postemergence, at least 12 days apart
- Always use a true broad-spectrum soil residual herbicide⁶ in your weed management plan.
- Consider using a layered residual, such as a Group 15 herbicide (i.e. S-metolachlor, pyracasulfone, acetochlor), in your post passes for longer-lasting weed control.

⁶Talk with your retailer for recommendations on preemergence herbicides for your farm.

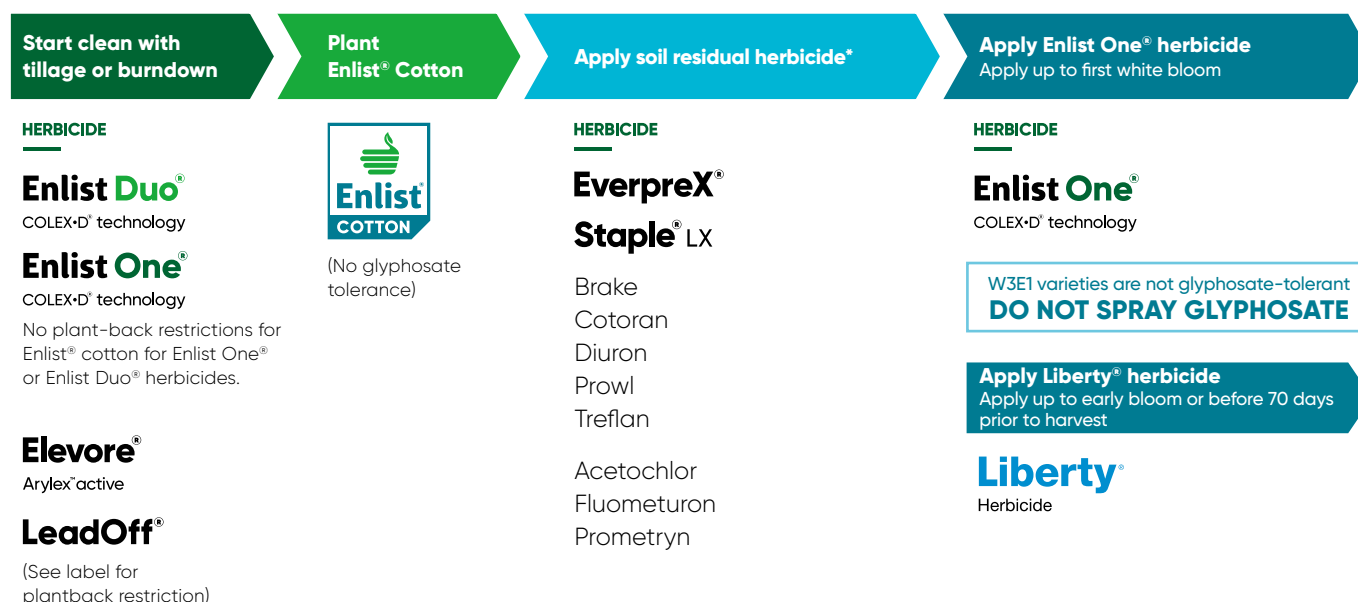
Soybean program approach



Cotton W3FE program approach

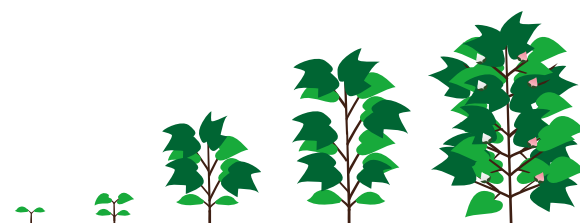


Cotton W3E1 program approach

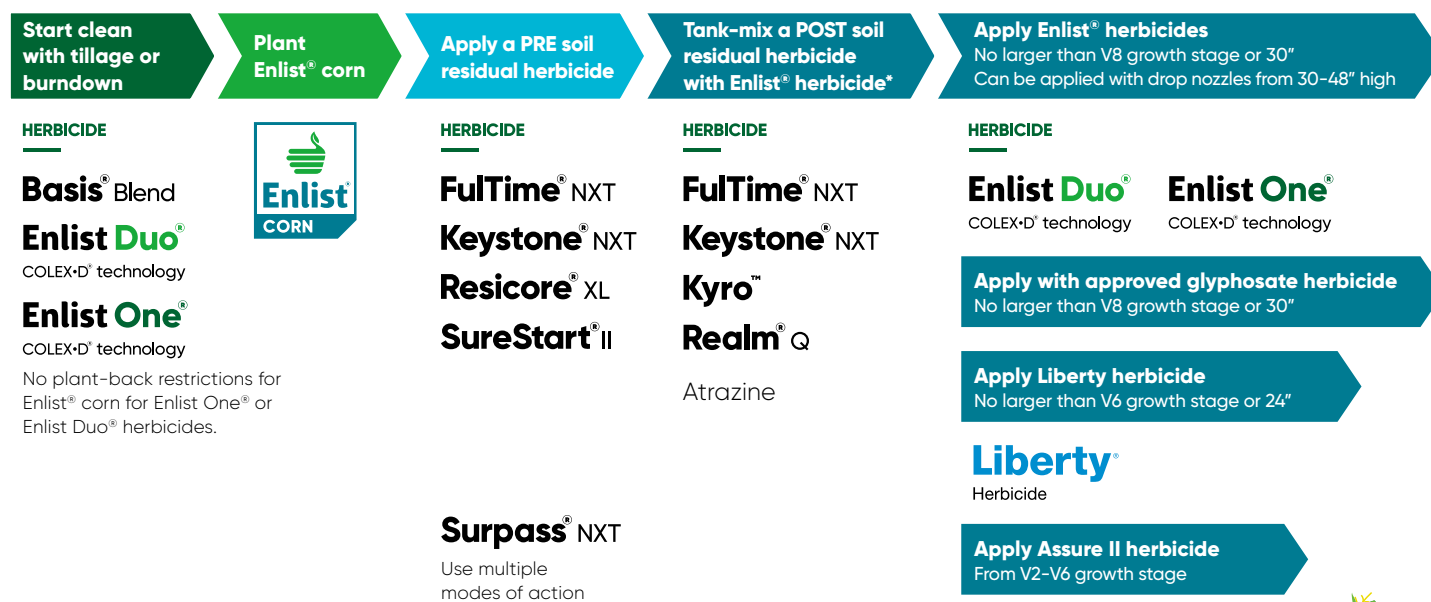


*Visit EnlistTankMix.com for a full list of qualified tank mix patterns with Enlist One® or Enlist Duo® herbicides. Always reference product labels for application cut-off timing.

■ Tillage or burndown ■ Planting ■ Preemergence ■ Postemergence/tank-mix



Corn program approach



*Visit EnlistTankMix.com for a full list of qualified tank mix patterns with Enlist One® or Enlist Duo® herbicides. Always reference product labels for application cut-off timing.

■ Tillage or burndown ■ Planting ■ Preemergence ■ Postemergence/tank-mix



FulTime® NXT and Keystone® NXT are Restricted Use Pesticides.

†Assure® II herbicide use in Enlist® Corn was under review when this was printed. Please confirm this use is registered prior to using Assure II herbicide on Enlist Corn.



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.

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
- 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). In the first application, apply between 32 to 43 fl oz/A depending on weed species, size and density.

APPLICATION WINDOW FOR LIBERTY® HERBICIDE ON ENLIST® CROPS	
Enlist E3® soybeans	Up to the R1 growth stage
PhytoGen® Enlist® cotton	Up to early bloom or before 70 days prior to harvest
Enlist corn	Up to V6 growth 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, such as an AIXR.
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 amaranth³



Waterhemp³



Kochia

³May require a broader management plan including timely application and use of a soil residual herbicide.

Preferred soybean residuals: Kyber[®], Sonic[®] and Trivence[®] herbicides

Residual herbicides play a critical role in keeping Enlist E3[®] 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.

Kyber[®], Sonic[®] and Trivence[®] herbicides fit very well into a program approach with either Enlist One[®] or Enlist Duo[®] herbicide.

Kyber[®]

HERBICIDE

Recommendation for Corn Belt and Plains states: Kyber[®] herbicide

- Three sites of action: metribuzin, flumioxazin, pyroxasulfone
- Four to six weeks of residual control; may exceed six weeks in the right conditions
- Highly compatible with the Enlist[®] weed control system in a tank mix with Enlist One[®] herbicide

Kyber[®] herbicide is a premium solution in the fight against resistant weeds. This preemergence soybean herbicide boasts three effective sites of action, including a Group 15 active ingredient, to create a new level of clean. It delivers the broad-spectrum control of resistant broadleaf and grass weeds that retailers and farmers have been asking for. Kyber offers long-lasting residual activity to control tough weeds, widening the postemergence application window.

Sonic[®]

HERBICIDE

Recommendation for Corn Belt and Plains states: Sonic[®] herbicide

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

Sonic[®] 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[®]

HERBICIDE

Recommendation for the Midsouth states, Kentucky, Ohio and Michigan: Trivence[®] herbicide

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

Trivence[®] 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, common lambsquarters and more.

Preferred postemergence tank-mix residual: 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 that is not typically used at a PRE timing 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[®] herbicide in postemergence passes
- Labeled for use in Enlist E3 soybeans, Enlist[®] cotton and Enlist corn





Tank-mixing with Enlist® herbicides



Applying an Enlist® herbicide in a tank mix with other products

The 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, waterhemp and kochia 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.
- Layering residual herbicides as part of a tank mix with Enlist herbicides helps provide season-long control of tough broadleaf weeds and grasses.
- Only use tank-mix partners listed on [EnlistTankMix.com](https://www.enlisttankmix.com) for every application of Enlist herbicides.
- 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.enlisttankmix.com).

Tank-mix sequence procedures

Start with a clean sprayer before mixing a load with Enlist One® or Enlist Duo® herbicide.

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 • 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), methylated seed oil (MSO), nonionic surfactant (NIS), other adjuvants
5. Liquid flowables	10. Top off with water carrier



Note on mixing with glyphosate products:

When mixing with Enlist One® herbicide, do not pour glyphosate products into the tank or inductor 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.

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.

Check **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">• Tested for crop response• Tested for physical tank-mix compatibility• An agronomic recommendation• An endorsement of any kind from Corteva Agriscience• An indicator of performance

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 meeting the standards set by the EPA, is available at EnlistTankMix.com.

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.

In some cases, 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

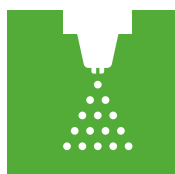
When tank-mixing grass herbicides such as clethodim with Enlist One® herbicide, increase the rate of the grass herbicide by a minimum of one-third to overcome potential antagonism. In addition, use recommended adjuvants for the grass herbicides. Do not exceed labeled rates with any recommended increase.

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)**.



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, ground speed, nozzle spacing and droplet size category.

Key items to remember:

- Use a qualified nozzle that provides the best possible coverage while appropriately managing spray droplets.
- Use a minimum of 10 gallons of water carrier volume; 10 to 15 gallons recommended for Enlist® herbicides. See Page 11 for information about tank-mixing Enlist One® herbicide with Liberty® herbicide.
- 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 nozzles and corresponding pressures listed on [Enlist.com/Nozzles](https://www.enlist.com/Nozzles) for every application of Enlist herbicides.⁴

⁴Always read and follow the product label as well as state and local requirements.

**HERBICIDE**

Qualified Nozzles

With Pressure Ranges (PSI)

Manufacturer	Nozzle Type	Size	Pressure		Pressure Range (PSI)																							
					10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	
			Min	Max																								
ABJ Agri	ABJ	110-04	20	30																								
		110-06	20	35																								
AlbuZ	AVI	110-025	40	60																								
		110-03	40	80																								
		110-04	40	90																								
		110-05	40	90																								
		110-06	40	90																								
Greenleaf	AM	110-03	15	30																								
		110-04	15	35																								
		110-05	15	40																								
		110-06	15	35																								
	TADF	110-08	30	60																								
	TADF-D	110-025-D	30	90																								
		110-03-D	30	90																								
		110-04-D	30	90																								
		110-05-D	30	90																								
		110-06-D	30	90																								
	TDXL	110-03	30	80																								
		110-04	30	80																								
		110-05	30	85																								
		110-06	30	90																								
		110-08	30	90																								
	TDXL-D	110-02-D	30	90																								
		110-025-D	30	80																								
		110-03-D	30	70																								
		110-04-D	30	90																								
		110-06-D	30	90																								
		110-08-D	30	100																								
	SD	110-04	20	90																								
		110-05	20	85																								
		110-06	20	40																								
		110-08	20	80																								
110-10		20	80																									
HyPro	ULD	120-03	20	30																								
		120-04	20	80																								
		120-05	20	70																								
		120-06	20	65																								
		120-08	20	40																								
	ULDM	130-03	30	85																								
		130-04	30	90																								
		130-05	30	85																								
		130-06	30	85																								
		130-08	30	85																								
John Deere	PSULD/ PSULDQ	20-03	20	30																								
		20-04	20	80																								
		20-05	20	70																								
		20-06	20	65																								
		20-08	20	40																								
	PSULDM/ PSULDMQ	30-03	30	85																								
		30-04	30	90																								
		30-05	30	85																								
		30-06	30	85																								
		30-08	30	85																								



COLEX-D® technology

HERBICIDE

Qualified Nozzles With Pressure Ranges (PSI)

Manufacturer	Nozzle Type	Size	Pressure		Pressure Range (PSI)																							
			Min	Max	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	
ABJ Agri	ABJ	110-04	40	40																								
		110-06	40	40																								
AlbuZ	AVI	110-025	40	80																								
		110-03	40	70																								
		110-04	40	70																								
		110-05	40	65																								
		110-06	40	60																								
Greenleaf	AM	110-03	15	35																								
		110-04	15	35																								
		110-05	15	35																								
		110-06	15	35																								
	TADF	110-025	20	45																								
		110-03	20	40																								
		110-04	20	50																								
		110-05	20	60																								
		110-06	20	60																								
		110-08	20	60																								
	TDXL	110-03	30	40																								
		110-04	30	45																								
		110-05	30	65																								
		110-06	30	75																								
	TDXL-D	110-02-D	30	65																								
		110-025-D	30	70																								
		110-03-D	30	90																								
		110-04-D	30	90																								
		110-05-D	30	85																								
		110-06-D	30	100																								
		110-08-D	30	80																								
	SD	110-04	20	100																								
		110-05	20	100																								
		110-06	20	100																								
		110-08	20	100																								
		110-10	20	100																								
	HyPro	ULD	120-03	20	35																							
120-04			20	70																								
120-05			20	65																								
120-06			20	50																								
120-08			20	40																								
ULDM		130-03	30	80																								
		130-04	30	80																								
		130-05	30	100																								
		130-06	30	100																								
		130-08	30	100																								
PSULD/ PSULDQ		20-03	20	35																								
		20-04	20	70																								
		20-05	20	65																								
		20-06	20	50																								
		20-08	20	40																								
John Deere	PSULDM/ PSULDMQ	30-03	30	80																								
		30-04	30	80																								
		30-05	30	100																								
		30-06	30	100																								
		30-08	30	100																								

Manufacturer	Nozzle Type	Size	Pressure		Pressure Range (PSI)																							
					10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	
John Deere	PSLDM/ PSLDMQ	20-06	20	55																								
		20-08	20	60																								
		20-10	20	45																								
Lechler	ID	110-04	30	40																								
		110-05	30	60																								
TeeJet	AI	110-04	30	60																								
		110-06	30	60																								
		110-08	30	70																								
	AITTJ	110-10	20	55																								
		110-15	20	45																								
	AITTJ60	110-03	20	25																								
		110-04	20	35																								
		110-05	20	40																								
		110-06	20	40																								
		110-08	20	55																								
	AIXR	110-03	15	30																								
		110-04	15	40																								
		110-05	15	50																								
		110-06	15	40																								
		110-08	15	60																								
		110-10	15	65																								
	TTI	110-02	15	65																								
		110-025	15	70																								
		110-03	15	65																								
		110-04	15	85																								
		110-05	15	65																								
		110-06	15	55																								
		110-08	15	55																								
		110-10	15	55																								
	TTI60	110-03	15	65																								
		110-04	15	60																								
		110-05	15	55																								
		110-06	15	50																								
		110-08	15	50																								
Wilger	MR	110-04	25	35																								
		110-05	25	35																								
		110-06	25	60																								
		110-08	25	60																								
		110-10	25	50																								
		110-125	25	70																								
	DR	110-03	30	50																								
		110-04	30	50																								
		110-05	30	70																								
		110-06	30	70																								
		110-08	30	60																								
		110-10	30	100																								
		110-125	30	100																								
	UR	110-03	30	90																								
		110-04	30	100																								
		110-05	30	100																								
		110-06	30	100																								
		110-08	30	90																								
110-10		30	100																									

For PWM Systems:

- NOZZLE** Designed for use with PWM systems
- NOZZLE** Use with John Deere ExactApply™ system ONLY

Coverage guide (factor of type, size and/or pressure range):

- NOZZLE** Provides best balance of coverage and drift control
- NOZZLE** Provides additional drift control by creating larger droplets
- NOZZLE** No classification

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

- Apply when wind speed is between 3 and 10 mph. Make sure to check with the state you are applying in as wind speed requirements may vary by state. Maximum wind speed on federal label is 15 mph.
- 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

All soybeans

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. For more information on temperature inversions, see Page 26 of this Product Use Guide.
- 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 including watermelon, pumpkin, squash and cucumbers (EPA Crop Group 9).

Know and follow federal, state and local requirements

When you apply an Enlist herbicide, you must follow all federal, 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.

It is a federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species or certain threatened species, under the Endangered Species Act Section 9. When using Enlist herbicides, you must follow the measures contained in the Endangered Species Protection Bulletin for the area you are applying the product.

Before use of Enlist Duo and/or Enlist One herbicides, review the Restrictions section of the label to confirm that the county in which use is intended is not one where use is prohibited. In addition, obtain an Endangered Species bulletin for the intended use location no earlier than six months prior to the application and follow measures listed relevant to that location for the protection of endangered species. To obtain bulletins, consult the website www.epa.gov/espp, call 844-447-3813 or email espp@epa.gov. You must use the bulletin valid for the month in which you will apply the product.

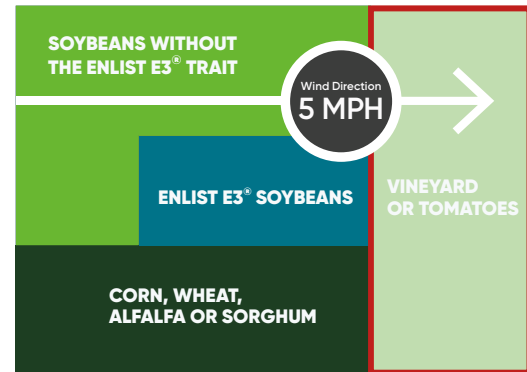
To report any ecological incidents, including mortality, injury or harm to nontarget plants and animals, call 855-ENLIST-1.

Field planning scenarios: Outside the Cotton Belt

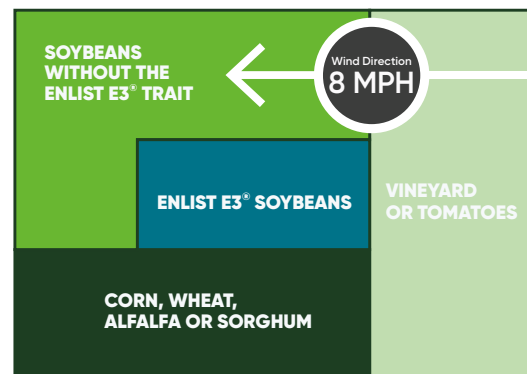
IS IT OK TO SPRAY ENLIST ONE® OR ENLIST DUO® HERBICIDE?



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.

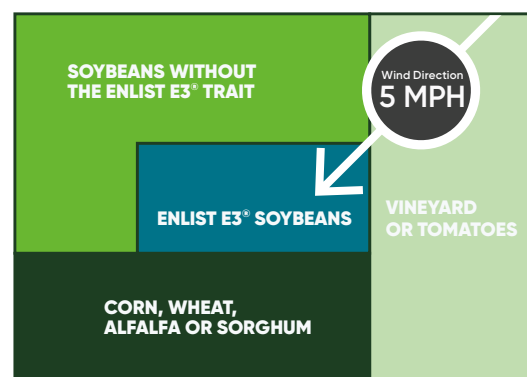


It's OK to spray when wind is blowing away from susceptible crops and toward soybeans without the Enlist E3® trait. Soybeans without the Enlist E3 trait are not a susceptible crop, meaning you can spray when the wind is blowing toward them with no field separation.



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.

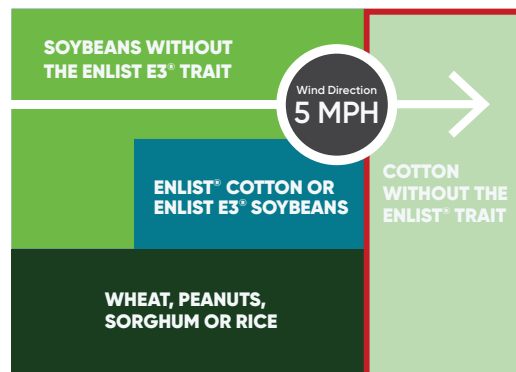


Field planning scenarios: Inside the Cotton Belt

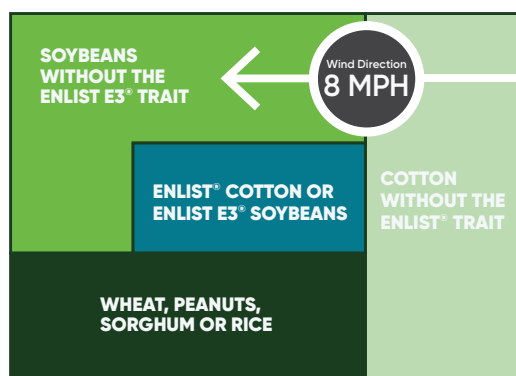
IS IT OK TO SPRAY ENLIST ONE® OR ENLIST DUO® HERBICIDE?



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.

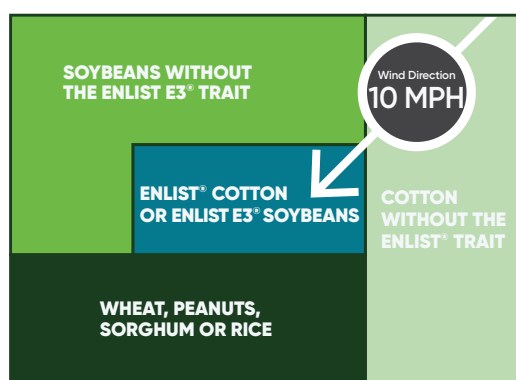


It's OK to spray when wind is blowing away from cotton without the Enlist trait and toward soybeans without the Enlist E3® trait. Soybeans without the Enlist E3 trait are not a susceptible crop, meaning you can spray when the wind is blowing toward them with no field separation.



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.



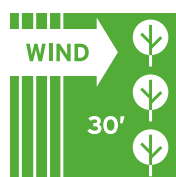
Avoiding temperature inversions

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 by using weather apps on 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 by 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 (3-4) degrees, it is considered an inversion.

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



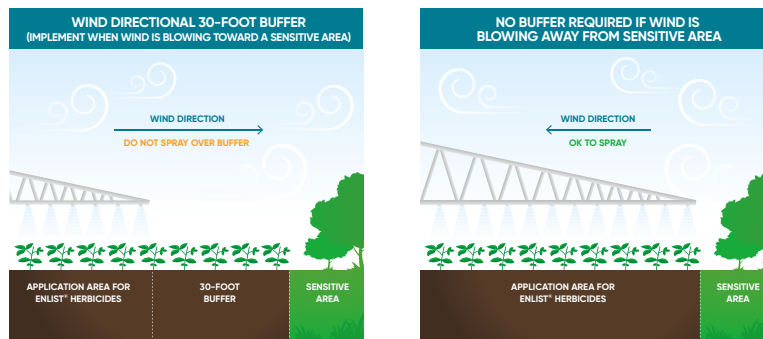
Protecting sensitive areas

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, 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.



Implementing runoff management practices

Sound management of runoff benefits landowners, farmers and the environment. Land managers/applicators must effectively implement mitigation measures that reduce, to the maximum extent practicable, runoff from treated fields. A variety of factors must be considered, including:

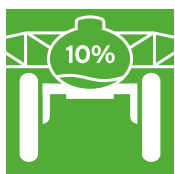
- Application scheduling
 - Maximize the time between the product application and rainfall (or planned irrigation).
 - Do not apply this product when soil is saturated or at field capacity, or when a storm event likely to produce runoff from the treated area is forecast (by NOAA/National Weather Service, or other similar forecasting service) to occur within 48 hours following application.
 - Do not irrigate treated field within 48 hours of application.
- Soil hydrologic grouping and corresponding mitigation measures
 - Users must know the soil hydrological type where application is occurring to implement required mitigation measures to prevent runoff. Soils are grouped into one of four categories based on runoff potential; refer to the Enlist® herbicide label for further information about these hydrologic soil group (HSG) categories.
 - The required minimum criteria described for runoff mitigation measures are outlined at [Enlist.com/MitigationMeasures](https://enlist.com/MitigationMeasures).
 - The farmer/land manager will achieve mitigation measure “credits” toward the total required by implementing mitigation measures, such as using residue tillage; by managing field strips, buffers and neighboring vegetation; or by using contour farming, as shown in the table.

MITIGATION MEASURES			CREDITS
Reduce number of applications – reduced number of applications of Enlist® products per year. Applications may be made at any time during crop development but must maintain a minimum 12-day re-treatment interval.		3 applications	0
		2 applications	2
		1 application	4
Residue tillage management: no-till, strip-till, ridge-till, and mulch-till			4
Vegetative filter strips	30-ft. off-field vegetative buffer on down slope	HSG A or B	2
		HSG C or D	0
	100-ft. off-field vegetative buffer on down slope	HSG A or B	4
		HSG C or D	1
Field border: border with dense vegetative stands with a minimum width of 30 ft.			2
Cover crop			2
Vegetative barrier: Permanent strips of dense vegetation along the contours of the field with a minimum width of 3 ft.			2
Contour buffer strips or terrace			2
Grassed waterway			2
Water and sediment basin			1
Contour farming or contour stripcropping			1

To learn more, read the Enlist herbicide labels and visit [Enlist.com/MitigationMeasures](https://enlist.com/MitigationMeasures).



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 an Enlist herbicide.

TRIPLE-RINSE SPRAYER	IF THE NEXT CROP YOU'RE SPRAYING IS GLYPHOSATE-TOLERANT CORN
As outlined in this Product Use Guide	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 first white bloom

Enlist E3® soybeans: Through R1 growth stage

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

• Unless applying with drop nozzles, then may spray up to 48 inches tall



Tank-mix partners

Use multiple effective sites of action, including partner herbicides. Follow the correct tank-mix sequence as detailed on the label.

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

Glyphosate herbicides: Tank-mix Enlist® One herbicide with a qualified glyphosate herbicide for grasses and glyphosate-susceptible broadleaves



Nozzles

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

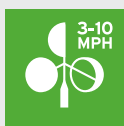
View the full list of nozzles for use with Enlist herbicides at [Enlist.com/Nozzles](https://enlist.com/Nozzles).



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 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.⁴

Special note on tank mix of Enlist One® + Liberty® herbicides: Use a spray volume of 15 to 20 gallons per acre. Do not apply less than 15 gallons of total spray volume per acre.



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 pt./A.

Enlist One herbicide: Spray 2 pt./A.



Spray pressure

Use an appropriate spray pressure within the qualified range for optimum coverage. Spraying at the higher end of the labeled psi will provide better 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.⁴

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.

⁴Always read and follow the product label as well as state and local requirements.



Soybeans, cotton and corn with the Enlist® trait

Consult biotradestatus.com for regulatory approval information on 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.

Use only herbicides authorized for application on Enlist E3 soybeans

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

What to know about Enlist® cotton

Enlist® cotton provides improved weed control with exceptionally effective Enlist herbicides. The trait allows you to apply herbicides featuring multiple sites of action for even better control of glyphosate-resistant weeds. When you plant any Enlist W3FE cotton variety, you get crop tolerance to 2,4-D choline, glyphosate and glufosinate herbicides. Enlist W3FE cotton provides crop tolerance that enables you to use Enlist Duo® or Enlist One® herbicide as part of a program approach for weed control.

Enlist W3E1 cotton is a nonglyphosate-traited offering, allowing farmers to use Enlist One herbicide for more flexibility in a program approach, and is more effective than glufosinate alone.

HERBICIDE TOLERANCE OF ENLIST® W3FE COTTON VARIETIES	HERBICIDE TOLERANCE OF ENLIST® W3E1 COTTON VARIETIES
TRAIT STACK: WIDESTRIKE® 3 INSECT PROTECTION, ROUNDUP READY® FLEX, ENLIST®	TRAIT STACK: WIDESTRIKE® 3 INSECT PROTECTION, ENLIST®
2,4-D CHOLINE	2,4-D
GLYPHOSATE	GLUFOSINATE
GLUFOSINATE	

Stalk destruction for Enlist cotton

All Enlist cotton varieties are tolerant to 2,4-D choline. 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 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.

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 authorized 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 ultimate weed management flexibility with robust herbicide trait tolerances – including 2,4-D choline, glyphosate and aryloxyphenoxypropionate (FOP) herbicides. Additionally, SmartStax® Enlist and PowerCore® Enlist hybrids include glufosinate tolerance. Non-Bt Enlist hybrids do NOT contain glufosinate tolerance. 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 ⁸
CYCLOHEXANEDIONE (DIM) HERBICIDES	Not tolerant	Not tolerant	Not tolerant

When commercially available, Vorceed™ Enlist corn from Corteva Agriscience will offer above- and below-ground insect protection, which will provide industry-leading flexibility to maximize return on investment opportunities for corn rootworm acres. The Vorceed Enlist trait will not be offered for sale or distribution until the completion of applicable regulatory reviews.

⁸**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.

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 following years.

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 authorized for preemergence and postemergence use with Enlist corn. Following registration approval, Assure® II herbicide (quizalofop) is the only FOP herbicide expressly authorized for postemergence use on Enlist corn.





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

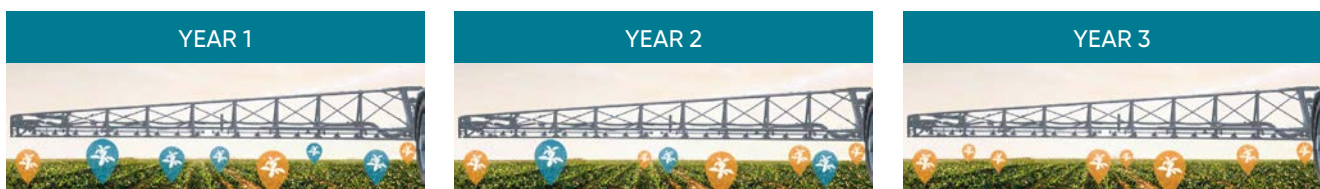
Glyphosate technology became the farm industry standard for weed control for many farmers. But using glyphosate as the primary, or only, herbicide site of action has resulted in glyphosate-resistant and hard-to-control weeds, including waterhemp, marestail, Palmer amaranth and giant ragweed. Repeated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



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.



Leaf drooping

- Temporary auxin response
- Appears within a few hours of application
- Dissipates within 12 to 36 hours
- Likely due to rapid effect of 2,4-D in plant prior to metabolism by enzyme
- No impact on yield



Leaf necrosis

- Appears within one to three days after application
- Only affects new growth at time of application
- New growth shows no necrosis
- No impact on yield

Protect pollinators while using Enlist® herbicides

Pollinators – including bees, birds, bats, butterflies, lizards, ants and other insects – play a key role in the health of our food systems and environment. Nearly 75% of food crops worldwide – as well as 90% of wild plant species – rely on pollinators. These crops represent between \$325 billion and \$577 billion worth of food production each year.*

A healthy pollinator population is one metric by which to measure a diverse ecosystem. Soil health, water quality and biodiversity are all important in delivering ecosystem benefits and an affordable and abundant food supply. Corteva Agriscience actively works to protect the health of both pollinators and the ecosystems they inhabit through a variety of initiatives.

Some best management practices to reduce potential pesticide exposure to pollinators include:

- Protect and enhance nonfarmland pollinator habitat, such as wildflower areas, border areas, and hedge and fencerows.
- Understand the pollinator needs for food, shelter and protection from hazards in your operations.
- Follow all product label restrictions and recommendations to protect pollinators.
- Follow all field planning and application best management practices listed in this guide to fully understand neighboring environments and to reduce potential pesticide exposure to these environments.
- Read and implement any required pollinator protection practices as provided by your seed supplier, such as the Corteva™ 2023 Soybean United States Product Use Guide found at [traitstewardship.com](https://www.traitstewardship.com).

Provisions in Enlist® herbicide labels intended to minimize the potential of exposure to pollinators include:

- "This product is designed to control certain weeds and if used outside the label requirements may adversely impact the forage and habitat of nontarget organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of nontarget organisms by following label directions intended to minimize spray drift and runoff."
- "This product is moderately toxic to bees on an acute basis and may cause chronic risk to pollinators or other terrestrial invertebrates. Do not apply this product to blooming vegetation or if bees or other pollinating insects are visiting the treatment area."
- "Do not apply in soybeans containing the Enlist® trait after the R1 growth stage."
- "Do not apply to cotton containing the Enlist trait after first white bloom."
- "Follow all label directions in Spray Drift Management and Management of Runoff sections for all applications."
- "Do not apply Enlist herbicide aerially."
- "Do not apply during a temperature inversion."
- "Do not apply with any tank-mix partner that is not listed on [EnlistTankMix.com](https://www.enlisttankmix.com)."
- "Use only qualified nozzles."

*Food and Agriculture Organization of the United Nations. 2016. Pollinators vital to our food supply under threat. <https://www.fao.org/news/story/en/item/384726/icode/>



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 Agriscience dealer, distributor or licensed representative if you have questions on your Technology Use Agreement status. You may also visit 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.

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.**

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 Enlist E3 soybeans.



Scan the QR code with your mobile device to learn more about seed coat color variation.

Helpful resources for you

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

Growers participating in Corteva's Horizon Network Program for Vorceed™ Enlist® corn products are required to sign a "Horizon Network Product Agreement", which specifies that Vorceed Enlist corn material can only be sold to and planted by growers who agree to use the grain as feed for livestock on their own farming operation OR agree to only sell their grain directly to producers who agree to feed this grain to their livestock OR direct delivery to additional Corteva-approved 3rd parties willing to accept Corn Material. Grain and byproducts produced from Vorceed Enlist corn material cannot be marketed in jurisdictions where not authorized, including Mexico, until the applicable approval is granted. Refer to www.biotradestatus.com for updated information on regulatory status, as well as www.traitstewardship.com for additional stewardship requirements.

Corteva products are launched in accordance with Corteva Agriscience launch policies and Excellence Through Stewardship Product Launch Guidance and that, in line with these guidelines, Corteva products included in the Horizon Network Product Agreement are approved for cultivation and domestic feed and food use in the United States and have received import authorization in many importing countries including Canada, China, Colombia, Japan, Korea, and Taiwan. Vorceed Enlist is not authorized for use in some markets and is not currently authorized for use in Mexico, which has become increasingly a non-functioning, non-science-based and politicized regulatory environment; growers must take all affirmative steps within their control to steward Vorceed Enlist appropriately and as required by the Horizon Network Product Agreement.

¹Assure® II herbicide (quizalofop) is a Group 1 herbicide for grass control, which is currently the only registered FOP herbicide for in-crop use with Enlist® corn.

²SmartStax® Enlist and PowerCore® Enlist hybrids include glufosinate tolerance. Non-Bt Enlist hybrids do NOT contain glufosinate tolerance.

³May require a broader management plan including timely application and use of a soil residual herbicide. Always read and follow the product label as well as state and local requirements.

⁴Always read and follow the product label as well as state and local requirements.

⁵Products 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.

⁶Talk with your retailer for recommendations on preemergence herbicides for your farm.

⁷Assure® II herbicide is the only FOP herbicide currently labeled for post use on Enlist corn.

⁸HERBICIDE 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.

***Food and Agriculture Organization of the United Nations. 2016.** Pollinators vital to our food supply under threat. <https://www.fao.org/news/story/en/item/384726/icode/>

* * Corteva Agriscience, Arylex, Colex-D, Corteva, DuPont, Elevore, Enlist, Enlist Duo, Enlist E3, the Enlist Logos, Enlist One, Enlite, Envive, EverpreX, FulTime, Keystone, Kyber LeadOff, PhytoGen, Realm, Resicore, Sonic, Staple, SureStart, Surpass, Surveil, Trivence, Vorceed and WideStrike are trademarks of Corteva Agriscience and its affiliated companies. PowerCore® and SmartStax® multi-event technologies developed by Corteva Agriscience and Monsanto. *PowerCore, Roundup Ready and SmartStax are registered trademarks of Bayer Group. **Always follow IRM, grain marketing and all other stewardship practices and pesticide label directions. Roundup Ready®** crops contain genes that confer tolerance to glyphosate herbicides. Glyphosate herbicides will kill crops that are not tolerant to glyphosate. **B.t. products** may not yet be registered in all states. Check with your seed representative for the registration status in your state. *Assure II is a trademark of AMVAC Chemical Corporation. Duplosan® is a registered trademark of NuFarm Americas Inc. *Liberty, the Liberty Logo and LibertyLink are registered trademarks of BASF. FulTime® NXT and Keystone® NXT are Restricted Use Pesticides. The transgenic event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience LLC and MS Technologies, L.L.C. Enlist Duo® and Enlist One® herbicides are not registered for sale or use in all states or counties. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your area. Enlist Duo and Enlist One herbicides are the only 2,4-D products authorized for use with Enlist® crops. Consult Enlist herbicide labels for weed species controlled. Elevore®, Enlite®, DuPont® Envive®, EverpreX®, FulTime NXT, Kyber®, Kyro®, DuPont® LeadOff®, Realm® Q, Resicore®, Resicore® XL, Sonic®, DuPont® Staple® LX, SureStart® II, Surpass® NXT, Surveil® and Trivence® are not registered for sale or use in all states. Keystone NXT is not available for sale, distribution or use in all states. FulTime NXT, Keystone NXT, Kyro, Resicore, Resicore XL, SureStart II and Surpass NXT are not available for sale, distribution or use in Nassau and Suffolk counties in the state of New York. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your state. Consult the label before purchase or use for full details. Arylex® is a registered active ingredient. Always read and follow label directions. © 2023 Corteva. CE09401028 (01/23) BR 010-91438 CAAG2NLST066



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