

Ramping Up Confidence in Low-volatility Benefits of 2,4-D Choline*Farmers Who Adopt Enlist E3[™] Soybeans Get Benefits of Reduced Drift, Near-zero Volatility*

INDIANAPOLIS, Feb. 28, 2019 — Farmers want a herbicide system that brings peace of mind. With the commercial launch of Enlist E3[™] soybeans from Corteva Agriscience[™], Agriculture Division of DowDuPont, more farmers are getting a firsthand look at Enlist[™] herbicides and the difference the Enlist[™] weed control system offers. The near-zero volatility profile of 2,4-D choline plus Colex-D[®] technology is inherent in Enlist One[®] and Enlist Duo[®] herbicides.

As farmers adopt Enlist E3[™] soybeans, they can maximize the value of the Enlist[™] weed control system by taking advantage of the key beneficial characteristics of Enlist herbicides.

Farmers who plant Enlist E3[™] soybeans will soon understand what Enlist cotton and corn farmers are realizing: The Enlist[™] trait allows them to confidently use Enlist[™] herbicides with better on-target results than traditional 2,4-D products. With the inherent near-zero volatility of 2,4-D choline, Enlist One[®] and Enlist Duo[®] herbicides provide effective weed control.



In addition, with Enlist[™] herbicides, farmers can better control physical drift. Enlist[™] herbicides are formulated with Colex-D[®] technology to reduce the propensity for driftable fines to move away from the intended target during application. However, farmers should prepare for applications carefully, following all label requirements that help minimize the potential for physical drift.

Those using Enlist[™] herbicides can take advantage of the [Enlist[™] Ahead](#) management resource, which details how to use these herbicides to manage weeds effectively with more confidence that the application will stay on target.

Tools Build Application Understanding

“With the commercial launch of Enlist E3[™] soybeans this season, we are making sure growers understand how Enlist[™] herbicides were created to complement the Enlist trait,” said Shawna Hubbard, Product Manager for Corteva Agriscience.

Enlist[™] Ahead helps applicators understand their role in keeping Enlist[™] herbicides on target (see “Education Tools Move Farmers Ahead”). Cotton, corn and production soybean growers who’ve planted Enlist[™] crops are monitoring conditions and using available tools — qualified nozzles, boom height and qualified tank-mix partners — to help make sure these herbicides don’t drift during application.

Corteva Agriscience is committed to providing resources and training to help retailers, applicators and farmers get the most from Enlist[™] herbicides. As Corteva Agriscience builds a ramp toward widespread availability of Enlist E3[™] soybeans in the 2020 season, the company will continue to educate and instruct farmers on how to achieve the advantages of the system. Farmers and applicators can use the Enlist 360 training modules on Enlist.com to get started. They also can look for opportunities this summer to see Enlist E3[™] soybeans and Enlist herbicides in technology demonstrations.

A Completely New Solution

Farmers realize the greatest yield potential comes when they control weeds. Enlist E3™ soybeans give them a chance to control their toughest weeds, including Palmer amaranth, marehail, waterhemp, common ragweed and giant ragweed.

“We created a product with the well-known weed control benefits of 2,4-D, but with totally different use characteristics,” Hubbard said. “Enlist™ herbicides contain 2,4-D choline, a completely new form of 2,4-D with drastically reduced volatility. This is due to the significantly more-stable choline salt. Applications will stay on target given the near-zero volatility.”

Not all 2,4-D herbicides are created equal. As farmers apply the choline form of 2,4-D, they see the differences — and the benefits — in real-world field applications.

Significantly Lower Volatility

To get the full value from the trait tolerances in Enlist E3™ soybeans, Enlist™ cotton and Enlist™ corn, researchers made monumental improvements over traditional 2,4-D.

The use of choline salt to bind 2,4-D choline makes it a much more stable form of the herbicide. It resists breaking down into more-volatile 2,4-D acid.

Note this: Roughly 4 percent of 2,4-D ester breaks down into the volatile acid form, while about 1 percent of 2,4-D amine breaks down into the volatile form. Meanwhile, 2,4-D choline boasts an 87.5 percent reduction in volatility compared with 2,4-D amine and a 96 percent reduction over 2,4-D ester — resulting in near-zero volatility.

Enlist One® herbicide with 2,4-D choline offers additional tank-mix flexibilities over other trait herbicide systems. Applicators can tank-mix 2,4-D choline with qualified glyphosate DMA (amine), glufosinate ammonium and ammonium sulfate (AMS) products. These products will not break the inherent low volatility of 2,4-D choline.

The Means to Limit Drift

The Enlist™ weed control system offers an effective, practical system to control weeds for farmers who plant varieties with the Enlist E3™ soybean trait. An important benefit comes from Colex-D® technology, which reduces driftable fines — those prone to move away from the target during application — without

Education Tools Move Farmers Ahead

As Corteva Agriscience™, Agriculture Division of DowDuPont, prepares farmers to succeed with Enlist E3™ soybeans, raising the level of knowledge concerning this technology remains essential.

The goal is to help farmers get the most out of Enlist E3™ soybeans on their farms. That includes on-target application, excellent weed control, exemplary crop tolerance and the opportunity for top yield.

Education and product stewardship have been critical pillars since the early development of Enlist™ technology for use in cotton, corn and soybeans. A key part of the Enlist weed control system, the Enlist Ahead management resource provides an array of tools to help farmers, retailers and applicators understand how to use this technology — including Enlist™ herbicides — appropriately and effectively.

The Enlist™ Ahead management resource offers many useful and effective tools. The resource includes the *Product Use Guide*, the application guide, product labels, Safety Data Sheets and instructional videos. Farmers can access [online resources](#) in the field via their tablets or smartphones.

Meanwhile, field experts from Corteva Agriscience continue to teach farmers and applicators the importance of communicating with neighbors, monitoring conditions and using the technology according to the label. Enlist™ Ahead tools provide a wealth of information to help farmers feel secure when using this much-needed and extremely effective weed control technology.

Learn more about the Enlist™ Ahead management resource and the advantages corn, soybean and cotton growers can gain by using the Enlist weed control system. Visit Enlist.com, follow us on Twitter at [@EnlistOnline](https://twitter.com/EnlistOnline) or go to our [YouTube channel](#) for more information.

decreases in droplet size. Research trials prove Colex-D® technology helps Enlist™ herbicides land and stay on target.

In addition, the use of qualified nozzles helps reduce the drift potential even more. Using Enlist Duo® herbicide featuring Colex-D® technology along with qualified nozzles reduces the potential for physical drift by 90 percent compared with a tank mix of traditional 2,4-D and glyphosate.

Label Shows Path to Success

While formulation and nozzles greatly reduce physical drift, it's critical for applicators to understand all label requirements that mitigate risk of movement onto susceptible crops. The requirements include:

- Being aware of nearby crops and landscapes
- Using only qualified tank-mix partners
- Using appropriate nozzles
- Avoiding application during a temperature inversion
- Spraying only if wind speed and direction are favorable
- Running the boom at the appropriate height and no higher
- Applying only at the correct nozzle pressure
- Avoiding contamination with thorough equipment cleanout

"I believe if you will do what it says on the label of Enlist Duo®, you're not going to have any problems," said Jack Kent, an Arkansas farmer who has grown Enlist™ cotton and Enlist™ soybeans for production. "If you don't abuse the rules, you should have no problem whatsoever in applying this herbicide."

Confidence to Stay on Target

Farmers who follow the label, monitoring conditions and spraying when those conditions allow, are successfully keeping Enlist herbicides on target.

"It's very low volatility and next to zero drift," said Ben Hortenstine, an Illinois farmer who has grown Enlist E3™ soybeans for seed production. "The product stays where it's applied. I'm very confident when we're applying Enlist Duo® that it's going to stay where we spray it. We really have no worries about it volatilizing and moving off target."

The inherent low volatility of the 2,4-D choline in Enlist™ herbicides, combined with the reduced drift potential of the Colex-D® formulation and diligent management, is giving farmers an invaluable weed control solution that shouldn't impact their neighbors when applied in accordance with the label.

Learn more about the Enlist weed control system. Visit Enlist.com, follow us on Twitter at [@EnlistOnline](https://twitter.com/EnlistOnline) or go to our [YouTube channel](#) for more information.



The advanced formulation of 2,4-D choline delivers near-zero volatility, tremendously reducing the opportunity for Enlist™ herbicides to move after application.



Farmers who plant Enlist E3™ soybeans will be able to apply Enlist™ herbicides, containing 2,4-D choline, near many crops with confidence the herbicides won't volatilize or drift as long as the farmers follow label requirements.

About Corteva Agriscience™, Agriculture Division of DowDuPont

Corteva Agriscience™, Agriculture Division of DowDuPont (NYSE: DWDP), is intended to become an independent, publicly traded company when the [previously announced spinoff](#) is complete by June 2019. The division combines the strengths of DuPont Pioneer, DuPont Crop Protection and Dow AgroSciences. Corteva Agriscience provides growers around the world with the most complete portfolio in the industry — including some of the most recognized brands in agriculture: Pioneer®, Encirca®, the newly launched Brevant™ seeds, as well as award-winning Crop Protection products — while bringing new products to market through our solid pipeline of active chemistry and technologies. More information can be found at www.corteva.com.

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