



**Office of Indiana
State Chemist**



Indiana Pesticide Review Board Meeting

-Enlist Herbicide Labels-

February 8, 2022

-Dave Scott-

Enlist Herbicide Registrations in the Context of:

- January 11, 2022, EPA announcement on Enlist herbicide registrations
 - <https://www.epa.gov/ingredients-used-pesticide-products/registration-enlist-duo-and-enlist-one>
- Pollinator protection
- Endangered Species Act
- Runoff mitigation to protect endangered species
- An indication of potential registration decisions to come?

Pollinator Protection

- “Do not apply this product to blooming vegetation or if bees or other pollinating insects are visiting the treatment area.”
- Corteva must develop, implement, maintain, and annually update a pollinator protection stewardship plan:
 - Address potential impacts to insect pollinators, incl. bees & butterflies
 - Identify importance of pollinator protection in agriculture.
 - BMPs to reduce exposure to pollinators incl. Monarch butterflies.
 - Identify conservation activities that result in restoration of habitat & range used by Monarch butterflies & other insect pollinators.

EPA Endangered Species Act (ESA) Press Release

Jan. 11, 2022

- EPA Announces Endangered Species Act Protection Policy for New Pesticides
- Reversing decades of practice, the U.S. Environmental Protection Agency (EPA) is taking meaningful action to further the Agency's compliance with the Endangered Species Act (ESA) when evaluating and registering new pesticide active ingredients (AIs).
- Effective today, before EPA registers any new conventional AI, the Agency will evaluate the potential effects of the AI on federally threatened or endangered (listed) species, and their designated critical habitats, and initiate ESA consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (the Services), as appropriate.

ESA Press Release (cont.)

- If EPA determines that jeopardy or adverse modification is likely, the Agency will only make a registration decision on the new AI after requiring registrants to implement mitigation measures that EPA determines would likely prevent jeopardy or adverse modification.
- If EPA finds that a new AI is likely to adversely affect listed species or their critical habitat, but that jeopardy/adverse modification is not likely, it may nonetheless require registrants to include mitigation measures on their registration and product labeling to minimize the effects of incidental take to listed species that could result from use of a pesticide.

Enlist Herbicide Press Release

January 11, 2022

- EPA determined that the use of Enlist Duo and Enlist One are likely to adversely affect listed species but will not lead to jeopardy of listed species or to the destruction or adverse modification of designated critical habitats. EPA also anticipates that the new protective measures will reduce the potential for "take."
- In addition to EPA's effects determination, EPA also completed a comprehensive ecological risk assessment that assessed the risks of 2,4-D choline salt (2,4-D), an active ingredient in both Enlist products, and glyphosate dimethylammonium salt (glyphosate), an active ingredient in Enlist Duo.

Enlist Labeling for Endangered Species Protection

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 and certain threatened species, under the Endangered Species Act section 9.

When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. *(may include some no-spray counties in some states...none currently in IN)*

You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov.

You must use the Bulletin valid for the month in which you will apply the product.

Enlist Labeling for Runoff Mitigation

- A variety of factors including soil type, slope, and weather conditions (e.g., rainfall) can influence volume and intensity of water running off the treated field.
- The applicator must evaluate all factors and make appropriate adjustments when applying this product.
- Land management, field condition and application practices that reduce, to the maximum extent practicable, runoff from treated fields, must be implemented by land managers/users of this product.
- Applicators/Land Managers must meet minimum criteria described for each mitigation measure as outlined on [Enlist.com/mitigation](https://enlist.com/mitigation) measures to receive **credits**.

Enlist Labeling for Runoff Mitigation (cont.)

- To reduce the potential for runoff and avoid off field impact from treated fields to maximum extent practicable, applicator must plan/schedule applications to maximize time between an application of this product and anticipated rainfall (or planned irrigation).
- Application must take place no less than 48 hours prior to irrigation or predicted rainfall (by NOAA/National Weather Service, or other similar forecasting service).

Enlist Labeling for Mitigation of Runoff (cont.)

- Hydrologic Soil Group (HSG) definitions:
 - A = Sand, loamy sand, or sandy loam;
 - B = Sandy clay loam;
 - C = Silt loam or loam;
 - D = Clay loam, silty clay loam, sandy clay, silty clay or clay.
- For land with Hydrologic Soil Groups A & B: The land manager/applicator must effectively implement measures in the following tables to equal a minimum of **4 credits**.
- For land with Hydrologic Soil Groups C & D: The land manager/applicator must effectively implement the measures in the following tables to equal a minimum of **6 credits**.

Enlist Labeling for Mitigation of Runoff (cont.)

- 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 retreatment interval.
- 3 applications = **0 credits**
- 2 applications = **2 credits**
- 1 application = **4 credits**

Enlist Labeling for Mitigation of Runoff (cont.)

- Residue Tillage Management: no-till, strip-till, ridge-till, and mulch-till = **4 credits**
- Field border: border with dense vegetative stands min. width of 30 ft. = **2 credits**
- Cover Crop = **2 credits**
- Vegetative Barrier: Permanent strips of dense vegetation along the contours of the field with a minimum width of 3 ft. = **2 credits**
- Contour Buffer Strips or Terrace = **2 credits**
- Grassed Waterway = **2 credits**
- Water and Sediment Basin = **1 credit**
- Contour Farming or Contour Strip Cropping = **1 credit**

Enlist Labeling for Mitigation of Runoff (cont.)

Vegetative Filter Strips

- 30 ft off-field vegetative buffer on down slope
 - HSG A or B = **2 credits**
 - HSG C or D = **0 credits**
- 100 ft off-field vegetative buffer on down slope
 - HSG A or B = **4 credits**
 - HSG C or D = **1 credit**

Confused Yet ?

Comments or Questions ?

Thank you !

Dave Scott

scottde@purdue.edu

765-494-1593