

2023 Dicamba

FREQUENTLY ASKED QUESTIONS

Updated: February 17, 2023

On October 27, 2020, the U.S. Environmental Protection Agency (EPA) announced that registrations for over-the-top (OTT) soybean herbicides **Engenia, FeXapan, Tavium, and Xtendimax** were extended through 2025. The federal registration for **FeXapan** has since been made inactive and is no longer available for distribution or use. The federal and state registrations for **Engenia, Tavium, and Xtendimax** are all still active, but EPA has made several label changes to those products since 2020.

The most recent change was announced by EPA on February 16, 2023. At the request of the product manufacturers, the federal label application cutoff date for use of the three OTT soybean herbicides has been revised to **June 12th** for the states of Iowa, Illinois, and Indiana. The application cutoff date for South Dakota has been revised to June 20th, and the cutoff date for Minnesota will remain on June 12th for southern Minnesota and June 30th for northern Minnesota.

The following frequently asked questions (FAQs) have been developed by the Office of Indiana State Chemist (OISC) to address many of the issues that have been raised regarding legal use of agricultural dicamba-containing products in Indiana. Updates to these FAQs are posted at <https://www.oisc.purdue.edu/pesticide/dicamba.html>. Comparable dicamba FAQs from EPA are posted at <https://www.epa.gov/ingredients-used-pesticide-products/dicamba-training-requirements-frequently-asked-questions>

1. What is the major change for the use of dicamba over-the-top (OTT) soybean herbicides in Indiana in 2023?

The application cutoff date for Engenia, Tavium, and Xtendimax products has been revised from June 20th to **June 12th**, because of changes to the federal label. June 12th is also the 2023 application cutoff date for the states of Iowa, Illinois, and parts of Minnesota.

2. Are there any other new label restrictions for OTT dicamba products in 2023?

Yes, in addition to the June 12th application cutoff date, there are application cutoff restrictions based on the growth stage of the target soybean crop. For 2023, the labels for Engenia, Tavium and Xtendimax all prohibit application after the V4 growth stage (four sets of unfolded trifoliolate leaves) of the target soybeans.

3. Will the application cutoff dates and growth stage restrictions be on the OTT dicamba product labels?

No, but the labels of these three products will instruct users:

No more than 7 days before application of this product the user must check the following website for additional labeling, including state restrictions:

www.EngeniaHerbicide.com/labels; or www.xtendimaxapplicationrequirements.com; or www.TaviumApplicationRequirements.com

4. Will these federal label changes for 2023 for the three OTT dicamba soybean products impact the Indiana state restrictions for the purchase and use of "older formulation" dicamba products (NOT Engenia, Tavium, or Xtendimax)?

No, as established in 2018, all agricultural herbicides containing at least 6.5% dicamba have been classified as **State Restricted Use Pesticides (RUPs)** in Indiana. These older dicamba products must be sold, distributed, tracked, applied, and recorded the same as every other RUP in Indiana. These older formulations are **NOT** labeled for over-the-top post emergence use on soybeans.

5. Will these federal label changes for 2023 for the three OTT dicamba soybean products impact the state application cutoff date for the "older formulation" dicamba products (NOT Engenia, Tavium or Xtendimax)?

No, just like in 2020, 2021, and 2022, the established application cut-off date for all other Indiana dicamba RUPs will remain **June 20th** for the 2023 use season. The application cut-off date applies to all RUP dicamba herbicide products formulated with at least 6.5% dicamba.

6. Will there be any changes to how OISC responds to complaints of off-target movement of dicamba herbicides in 2023?

No, starting in 2019 OISC initiated a dicamba response procedure that allowed complainants to request a full compliance investigation or an investigation to document dicamba exposure only. The procedural change was intended to preserve OISC resources that had been overwhelmed by dicamba complaints and to provide a response option that had been requested by some of the complainants in 2017 and 2018. Based on the documented success of these changes in 2019-2022, OISC will continue to provide these options in 2023. In addition, OISC has since extended these investigation response options to off-target movement complaints for all herbicides, not just dicamba.

7. Do mixers, loaders, handlers, and spray equipment cleaners of the OTT soybean dicamba herbicides need to be certified applicators?

Yes, anyone who is responsible for any part of the use and application process, which includes mixing, loading, application, or cleaning dicamba application equipment, must become a certified and licensed private applicator or a commercial applicator (Category 1).

NOTE: As the result of 2023 Indiana rule revisions made to comply with federal certification and training rules, the same certification requirements now apply to all Restricted Use Pesticide (RUP) users, not just users of OTT soybean dicamba products and paraquat products https://oisc.purdue.edu/pesticide/pdf/2023_new_pest_rules_outreach.pdf.

8. Are truck drivers that transport unopened OTT dicamba product containers or pre-mixed "hot loads" in closed systems required to be certified applicators?

Workers are not required to be certified and licensed if they are involved in nothing more than transportation of unopened dicamba containers, transportation of "hot loads" that were mixed by and delivered to a certified and licensed applicator.

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(RUP) users, not just users of OTT soybean dicamba and paraquat products
https://oisc.purdue.edu/pesticide/pdf/2023_new_pest_rules_outreach.pdf .

9. Do I need to be "dicamba trained" again in 2023 to use the OTT soybean dicamba herbicides?

Yes, the 2023 label requirements for the soybean herbicides again include the annual training requirement for all applicators, handlers, loaders, mixers, and spray equipment handlers. This mandatory annual dicamba training is in addition to the requirement to be a licensed commercial applicator or private applicator.

10. Who will provide the mandatory annual dicamba training?

Annual dicamba training in Indiana is provided almost exclusively by the soybean dicamba product registrants (*BASF, Bayer, Syngenta*). The registrant training may be in person, or virtual group training, or may be self-directed online training. OISC recommends that you contact your dicamba supplier or visit registrant websites for details. OISC will also accept dicamba training that has been accepted by any other state pesticide regulatory agency.

11. Has the OTT soybean dicamba record keeping requirements changed for 2023?

No, the 2023 applicator records for the OTT products are the same as in the last couple of years. The 2023 records must include the identity of and a receipt for the label-required **pH buffering adjuvant/volatility reduction adjuvant** and **drift reduction adjuvant** mixed in every tank mix of the soybean dicamba herbicides. If you use the record keeping form developed by Purdue Pesticide Programs in PPP-119, you will satisfy the 2023 dicamba record keeping requirements for Indiana <https://ppp.purdue.edu/wp-content/uploads/2021/02/PPP-119-2021-fill-in-form.pdf> .

NOTE: As the result of 2023 Indiana rule revisions made to comply with federal certification and training rules, all Restricted Use Pesticide (RUP) users, not just users of OTT soybean dicamba products, are now required to keep application start and stop times.
https://oisc.purdue.edu/pesticide/pdf/2023_new_pest_rules_outreach.pdf .

12. The labels for the OTT soybean products require that I keep a record of when I checked DriftWatch for the presence of nearby sensitive crops or sites. Can I also use that site to check for the presence nearby non-DT soybeans?

Yes, effective January 1, 2019, a new FieldWatch feature called CropCheck has allow growers to map row crops like soybeans, cotton, and corn that may be sensitive to some nearby pesticide applications. Access CropCheck through www.driftwatch.org. Note that checking CropCheck for nearby non-DT row crops does not eliminate the requirement for the applicator to ensure those neighboring crops are dicamba-tolerant before application.

13. The OTT dicamba soybean labels require, "If wind direction shifts such that the wind is blowing toward neighboring sensitive crops or residential areas, STOP the application." What documentation will OISC require as evidence that the applicator has met this requirement?

The label requires record keeping of wind direction at the start and finish of the application. However, the applicator must also constantly monitor wind speed and direction throughout the

entire application and include a notation in the application records documenting the time-period that the application was stopped due to a change in wind speed or direction. Otherwise, the assumption will be that the application was continuous, without stopping, as required.

14. Application records must include start and stop times. If the wind direction shifts toward neighboring sensitive crops or residential areas, and the applicator stops the application, but doesn't pick up the application until the following day, is that a separate application or the same one?

Stopping an application and resuming it on a following day will be considered a separate application. Accurate records must be maintained. Each time the certified applicator starts or stops an application it needs to be recorded, regardless of which applicator is performing the application or which day.

15. Are there any application timing restrictions on the use of soybean dicamba products?

Yes, these products may not be applied at night or during the period two hours before sunset through one hour after sunrise. In addition, the labels prohibit application after the R1 growth stage of the soybeans and after June 30th. However, additional state restrictions in Indiana have set the application cut-off date in 2022 on **June 20th**. So, the more restrictive June 20th cut-off date will apply in Indiana. It should be noted that the June 20th application cut-off date will also apply in Illinois and Iowa. In Minnesota, the application cut-off date could be as early as June 12th, depending on where in the state the product is used.

16. Are there still prohibitions against spraying when wind is blowing toward sensitive crops, plants, and residential areas?

Yes, the current labels still prohibit application when the wind is blowing toward adjacent sensitive crops, plants, and residential areas.

17. What does the term “adjacent” mean on these labels?

The term “adjacent” for describing sensitive sites to be protected, has not been defined by either EPA or the product registrants. But for purposes of investigation and label compliance OISC will interpret “adjacent” to mean any protected crop or site that exists, partially or in whole, within 240 feet of the edge of the target soybean field. This is consistent with EPA’s improved risk assessments that suggest that significant downwind drift past 240 feet should not be a concern. However, applicators should be advised that this improved risk assessment and safety margin does not eliminate applicator regulatory liability under the Indiana state drift rule for off-target adverse effects resulting from drift past 240 feet. Both label restrictions and the state drift rule will be considered by OISC when investigating off-target movement complaints.

18. Do sensitive crops include adjacent organic crops?

Yes, although certified organic crops are not specifically listed on the labels as an example of a sensitive crop, the fact remains that any pesticide residues in these crops, whether causing a visible adverse effect or not, might make these crops unfit for sale, use, or consumption as organic. Therefore, certified organics are sensitive crops.

19. Are the buffer requirements for OTT dicamba soybean products the same as on previous labels?

Yes. The 240-foot downwind buffer is the same as last year. The applicator must always maintain a 240-foot downwind buffer between the last treated row and the nearest downwind field/area edge (in the direction the wind is blowing). In addition, for OTT dicamba soybean applications in counties with protected endangered species (**Greene, Harrison, Lagrange, Lake, Porter, Posey**), a 57-foot buffer is required on every side of the target soybean field plus a 310-foot downwind buffer. Under the federal Endangered Species Act (ESA), applicators are required by the label directions to check the EPA website (<https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins>) within six months prior to the application for any additional area specific or timing specific restrictions

20. Is a buffer required on just one side of a dicamba-treated soybean field when the application does not occur in one of the Endangered Species Act (ESA) counties?

Sometimes yes, but oftentimes buffers are required on several sides of the target field. Applicators should remember that buffers will often be required on two or more downwind sides of a target field. If wind direction is not constant and non-target fields and sites are not positioned completely perpendicular to one another, two or more sides of the target soybean field may require a buffer. A 45-degree wind direction would require a buffer on at least two downwind sides.

21. Are downwind buffers required next to in-field grass/vegetative waterways?

No, downwind dicamba buffers would not be required next to these in-field areas. U.S. EPA and OISC have concluded that grass waterways should be treated the same as Conservation Reserve Program (CRP) areas. Both CRP and grass waterways include voluntary conservation agricultural areas that could be used for cropland production. Therefore, buffers are not currently required to protect these voluntary conservation practice areas. It should be noted that these allowances for in-field conservation measures could change as new ESA and wildlife protection label mitigation measures are added to revised product labels.

22. The dicamba labels prohibit application during a temperature inversion. How can I determine if a temperature inversion exists in or near my target field prior to application?

Just like other weather measurements, there is no one official method to determine if temperature inversion conditions exist in a field. However, temperature inversion indicators can include nights with limited cloud cover and light-to-no wind, ground fog, smoke not rising, dust hanging over a road, or the presence of dew or frost. Just like other weather data documentation, a time, date, and GPS-stamped photograph taken in the field from your smartphone can serve to supplement and support your determination that an inversion did not exist. In addition, tools to help you identify the likelihood of a temperature inversion can include smoke generators in the target field, phone apps, and the Inversion Tester by Spoton®. (*Reference to any specific equipment or brand does not suggest product endorsement by OISC*).

23. Weather apps are now available to help an applicator predict and measure weather. Are these apps certified or official-enough for my weather measurements?

It is important that you understand that these apps rely on weather data collected at weather stations that may or may not be close to your target application field. Most of these apps use computer software to estimate the weather conditions at your location. Therefore, there will be some margin of error or inaccuracy. While not perfect, these weather-predicting apps are usually better than an applicator's guess or estimate made without measuring equipment used at boom height in the target field at the times of application. Research on the in-field reliability of weather apps is available at <https://vimeo.com/309554246/b04fd38bf2> or on the OISC Dicamba Update website page under [Ground Truthing Weather Apps for Wind Speed and Temperature Inversions](#).

24. I have a spray injection system that allows me to keep my dicamba and my other on-sprayer herbicides and adjuvants in separate tanks. The point of injection for each tank is at the spray boom. Can I use the same spray system for dicamba and other herbicides or adjuvants if those other products are not on the list of label-approved tank mixes?

No, you cannot use the injection spray system to circumvent the tank mix restrictions. The labels of these products require that the entire spray system, including tanks, pumps, booms, lines, screens, and nozzles be cleaned according to label directions, both before and after application. Therefore, since it is impossible to clean the spray booms before or after injection of these dicamba products, this type of application is prohibited. Even very small amounts of dicamba left in spraying systems have caused significant cross contamination and non-target impact issues.