



Beer, Wine, and Liquor: FAQs

Verification for Alcohol Products

Beer, wine, and liquor products are welcome in the Non-GMO Project Product Verification Program. Verifying these products is no more complicated than verifying products in any other category. Use these frequently asked questions as a companion to the <u>Non-GMO</u> <u>Project Verification Guide</u> to learn more about verifying your alcohol products.

IS THERE A GMO RISK IN THE BEER, WINE, AND LIQUOR SUPPLY CHAINS?

There is a substantial and growing GMO risk in many alcohol product supply chains, especially for whiskey, vodka, and other beverages commonly made with corn. As roughly 92 percent of corn grown in the US and Canada is genetically modified, corn used to distill whiskey is increasingly coming from GMO sources (USDA. 2019)(Curtis, W. 2019). Genetically modified potatoes have also become widely commercially available over the last couple of years, which may have the potential to impact certain liquor supply chains in the future.

Several prominent liquor companies have responded to this growing threat by making non-GMO claims, but few of these claims are backed by the Non-GMO Project's third-party Product Verification Program.

WHICH INPUTS TO ALCOHOL PRODUCTS ARE LIKELY TO BE DERIVED FROM GMOS? Inputs on the <u>Non-GMO Project High-Risk List</u> are subject to additional requirements during evaluation. In alcohol products, high-risk inputs tend to show up in three categories:

Risk Inputs in Alcohol Products

Fermentation media: Crops that are fermented to produce alcohol can be GMO risks. Corn, potatoes, honey, and added sugar from sugar beets are all at high risk for being genetically modified.

Added ingredients: Inputs such as flavorings and colorings that are added after fermentation will also be reviewed during the evaluation process. Added ingredients such as milk, honey, and papaya are also somewhat common GMO risks in alcohol products.

Microorganisms and enzymes: Yeast is a microorganism, and therefore a high-risk input. All microorganisms—including fermentation microbes—must be non-GMO and must be accompanied by an affidavit attesting to their non-GMO status. Your Technical Administrator will help you complete the proper paperwork. Microorganisms are not eligible for micro exemptions; they must always be non-GMO.

Enzymes are high-risk inputs commonly used as processing aids in beer, wine, and liquor products. Functional enzymes present in the finished product are not eligible for micro exemption in many cases.

WHICH INPUTS TO ALCOHOL PRODUCTS MAY REQUIRE GMO TESTING?

Like all other products, inputs to alcohol products are classified by their risk status, testability, and weight percentage in the finished product. Learn more about these risk classifications in the **Non-GMO Project Verification Guide**.

GMO testing will be required if your product contains major testable high-risk inputs. Each lot of major testable high-risk input must be tested, and it must test at or below the 0.9% action threshold. Your Technical Administrator will determine which inputs require testing and details are available in the **Non-GMO Project Standard**, section 6. Choosing Non-GMO Project Verified inputs can eliminate the need for testing.

WHICH INPUTS REQUIRE SIGNED AFFIDAVITS?

Major non-testable high-risk inputs cannot be tested because commercial GMO tests are not available for these inputs. They require signed affidavits attesting to their non-GMO status instead, in accordance with section 7.2. Some high-risk inputs (e.g., potato) have both testable and non-testable varieties. Such inputs require both testing and affidavits.

Minor and micro ingredients also do not require testing but may require affidavits attesting to their non-GMO status. Choosing Non-GMO Project Verified or Certified Organic inputs can eliminate this requirement in many cases. Your Technical Administrator will determine when such affidavits are necessary.

WILL MY PRODUCTION FACILITY REQUIRE INSPECTIONS?

Annual inspections are required when parallel processing of the same major highrisk input is occurring. For example, an inspection would be necessary if your facility is fermenting both non-GMO corn and GMO corn to make both compliant and noncompliant liquors. Contract processors that are not participants in the Non-GMO Project Product Verification Program may be exempt from inspection when products they manufacture are the result of a system that has been designed to avoid GMOs. Your TA may require inspections at their discretion.

DO ANIMAL PRODUCTS SUCH AS HONEY REQUIRE GMO TESTING?

Animal-derived inputs including honey are high-risk inputs because of the prevalence of GMOs in animal feed and bee forage. When animal-derived inputs are used as a major ingredient (5% or more by weight), such as honey in mead production, the animal feed will require testing and/or signed affidavits. Choosing Non-GMO Project Verified animal inputs can eliminate the need for testing.

Please review the **Animal-Derived Inputs FAQ** for additional details about using animal products.



HOW ARE PROCESSING AIDS EVALUATED?

Processing Aids such as enzymes used in the production of beer, wine, and liquor are subject to regular compliance requirements according to their risk level and weight percentage in the finished product. Processing aids present at 0.5% or more by weight in the finished product are in scope; processing aids present at less than 0.5% by weight are out of scope and not subject to evaluation.

DO I NEED TO SOURCE NON-GMO CARBON DIOXIDE FOR CARBONATED **BEVERAGES?**

Purified carbon dioxide is out of the scope of evaluation regardless of its source.

CAN I USE THE NON-GMO PROJECT VERIFIED MARK ON VERIFIED ALCOHOL **PRODUCTS?**

While the Non-GMO Project does not prohibit the use of the verification mark on alcohol products, some participants may find that the Alcohol and Tobacco Tax and Trade Bureau (TTB) prevents non-GMO claims on their product when sold in the United States. This restriction does not impact all alcohol products sold in the US, just products that are subject to TTB regulations.

References

- Curtis, Wayne. "Bourbon Producers Consider the Pros and Cons of Non-GMO Corn." SevenFifty Daily, January 18, 2018. https://daily.sevenfifty.com/bourbonproducers-consider-the-pros-and-cons-of-non-gmo-corn/.
- USDA. "Adoption of Genetically Engineered Crops in the U.S." USDA ERS Adoption of Genetically Engineered Crops in the U.S. USDA ERS. Accessed October 30, 2019. https://www.ers.usda.gov/data-products/adoption-of-genetically-engineeredcrops-in-the-us.aspx.



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