



# NBFDS

*What Non-GMO Project Participants Need to Know*

# Introduction

The [National Bioengineered Food Disclosure Standard](#) (NBFDS) is a federal rule that was published by the USDA Agricultural Marketing Service (AMS) in 2018. It requires some food manufacturers to place a “bioengineered food disclosure” (BE disclosure) on some food products that are made with (or may be made with) genetically modified (GM) ingredients.

The NBFDS uses a very narrow definition of “bioengineered food,” (BE food) which exempts many ingredients that are derived from biotechnology. This rule will allow many of the most pervasive GMOs to go unlabeled. Non-GMO Project Verified remains the most technically rigorous and most trusted label for GMO avoidance; consumers who care about true ingredient transparency will continue to seek the Non-GMO Project Verified logo (the Butterfly).

It’s important to understand the significant conceptual differences between the NBFDS and the [Non-GMO Project Standard](#). The two standards do not align perfectly. They emphasize different values and use different terms.

Crucially, the NBFDS details when foods must disclose the **presence** of GM ingredients on the food label, while the Non-GMO Project Butterfly means that a Product has met the Non-GMO Project’s rigorous Standard for GMO **avoidance**. You can read more about this and the following other highlights of the two programs throughout this guide.

NON-GMO PROJECT STANDARD	NBFDS
<b>The Butterfly</b>	<b>BE food disclosure label</b>
<b>Process-based evaluation</b>	<b>Product-based audit</b>
<b>Testing and affidavits</b>	<b>Records</b>
<b>High-Risk List</b>	<b>List of Bioengineered Foods</b>
<b>Action threshold of 0.9%</b>	<b>Allowable GMO presence of up to 5%</b>

To address these incongruities and help Non-GMO Project Product Verification Program Participants (Participants) prepare to comply with the NBFDS, the Non-GMO Project made certain requirements in the Non-GMO Project Standard even more rigorous in Version 15. This guide is meant to help Participants understand those changes to the Non-GMO Project Standard and how they relate to the NBFDS. It is not a guide to NBFDS compliance. For specific questions about the NBFDS or your foods’ compliance with the NBFDS, please contact the AMS.



# What Participants Need to Know about the NBFDS

## COMPLIANCE DEADLINES

Voluntary compliance began on January 1, 2020.  
Mandatory compliance begins on January 1, 2022.

## APPLICABILITY

The NBFDS does not apply to all categories of Products that the Non-GMO Project verifies.

### Examples of the NBFDS applicability (this list is not exhaustive)

<b>Applies</b>	human food, chewing gum, vitamins and supplements, some wine and beer
<b>Does not currently apply</b>	most meat, egg, multi-ingredient food with meat or eggs as the first ingredient, prepared food, pet food, animal feed, distilled spirits, some wine and beer, body care products, cosmetics, other non-food items, certified USDA Organic foods

The NBFDS does not consider animal feed in determining if meat is considered bioengineered (BE). The only GM animal currently on the market and on the List of Bioengineered Foods is AquaAdvantage® Salmon, making most meat not subject to a BE disclosure.

Applicability rules are very complicated, especially for foods that contain substantial amounts of meat or eggs. Please review the NBFDS sections [B and C under Section II: Applicability](#) for full details. Please note, the Non-GMO Project cannot determine whether the NBFDS will apply to or require a BE disclosure on specific foods. For specific questions about compliance with the NBFDS, please contact the AMS.

While Non-GMO Project Verified Products are not automatically exempt from the NBFDS BE disclosure, the documentation you use to demonstrate compliance with the Non-GMO Project Standard may also support compliance with the NBFDS.

# Conceptual Differences Between the Non-GMO Project Standard and the NBFDS

The Non-GMO Project explains the Product Verification Program around “Products” and “Genetically Modified Organisms” (GMOs), whereas the NBFDS frequently uses the terms “food” and “bioengineering.” Importantly, these terms are not directly comparable or interchangeable; they do not just mean different things, but they comprise different scopes and emphasize different elements of the production chain and process.

It may be helpful to think of the Non-GMO Project Standard evaluation as primarily process-based. It evaluates Inputs along the supply chain to determine if GMOs are significantly present at any point in the process of creating a Product. The NBFDS can be thought of differently as product-based. It considers the level of detectable modified genetic material in the finished food after processing is complete.

## DETECTABLE MODIFIED GENETIC MATERIAL

The NBFDS only requires a BE disclosure for foods that contain detectable modified genetic material for which the modification could not otherwise be accomplished through conventional breeding or found in nature. According to the NBFDS:

- **Genetic material (e.g., DNA)** is found in the cells of all living things.
- **Modified genetic material** has been genetically modified using what the Non-GMO Project calls “Biotechnology” or what the AMS calls “bioengineering.”
- **Detectable modified genetic material** is genetic material that was modified and can be tested to reveal the presence of that modification via a commercially available GMO test.

Under the NBFDS, many foods that are a result of new genetic engineering techniques may not require a disclosure because they are not currently detectable or because they could potentially be found in nature or achieved through conventional breeding.

Many foods can avoid a BE disclosure under NBFDS simply because they have been so processed, GM material is no longer detectable. For example, a cooking oil made entirely from GM canola is not considered BE, and therefore does not need to make a BE disclosure, because the processed oil does not contain detectable modified genetic material.

Details on detectability can be found in the [NBFDS § 66.9](#).



Additionally, the NBFDS focuses on labeling foods that contain detectable modified genetic material in their finished form. It is primarily concerned with finished foods rather than the processes and Inputs used to create them.

The NBFDS allows manufacturers to begin with a BE organism and process it into something that the NBFDS does not consider a BE food.

The NBFDS also minimizes testing by allowing the use of “validated refinement processes.” Once it is confirmed that the process of making a food leaves no detectable modified genetic material, manufacturers may rely on process records alone to indicate that food is not subject to a BE disclosure. No ongoing laboratory testing is necessary.

The ways in which the NBFDS defines BE food and detectability mean that many foods that are the result of biotechnology will not be required to make a BE disclosure because of the way they are processed or refined.

The Non-GMO Project focuses on avoiding products of biotechnology where possible, regardless of whether they are detectable—or even present—in the finished Product. The Non-GMO Project Standard is process-based; it demands the examination of Inputs, as well as the processes that go into making Products, and it employs sourcing documentation and testing to evaluate Products meaningfully.

Participants must demonstrate that Inputs have been sourced non-GMO. Additionally, ongoing testing of Testable High-Risk Major Inputs must be employed at a point along the supply chain where there is sufficient DNA intact to yield meaningful test results that validate their non-GMO status. The Non-GMO Project Standard does not allow manufacturers to begin with a result of biotechnology (a GMO) and process it into something that is not considered a GMO.

Allowing manufacturers to hide GMOs via processing fails consumers who are looking for ingredient transparency. GMOs are especially prevalent in processed foods, an estimated 70% of which contain GMOs. The NBFDS makes it impossible for shoppers to know if a food lacks a BE disclosure because it is truly derived from non-GMO sources or simply because it has been heavily refined. This means the NBFDS does little to provide consumers with meaningful information and does nothing to help brands earn consumer trust. People who care about ingredient transparency will continue to choose Non-GMO Project Verified Products when they shop.



# List of Bioengineered Foods

The NBFDS includes a [List of Bioengineered Foods](#), which is analogous to the Non-GMO Project High-Risk List. These foods are known to the AMS to be BE.

- **List of Bioengineered Foods** (this list is not exhaustive)

Alfalfa, apple (Arctic™ varieties), canola, corn, cotton, eggplant (BARI Bt Begun varieties), papaya (ringspot virus-resistant varieties), pineapple (pink flesh), potato, salmon (AquAdvantage®), soybean, squash (summer), and sugarbeet

The Non-GMO Project maintains a [High-Risk](#) List. Crops with GM varieties that are widely commercially available, as well as all Inputs derived from those crops, are considered High Risk. Participants who use these Inputs in their Products need to take extra care that they are obtaining them from non-GMO sources and should be able to provide documentation of their non-GMO status.

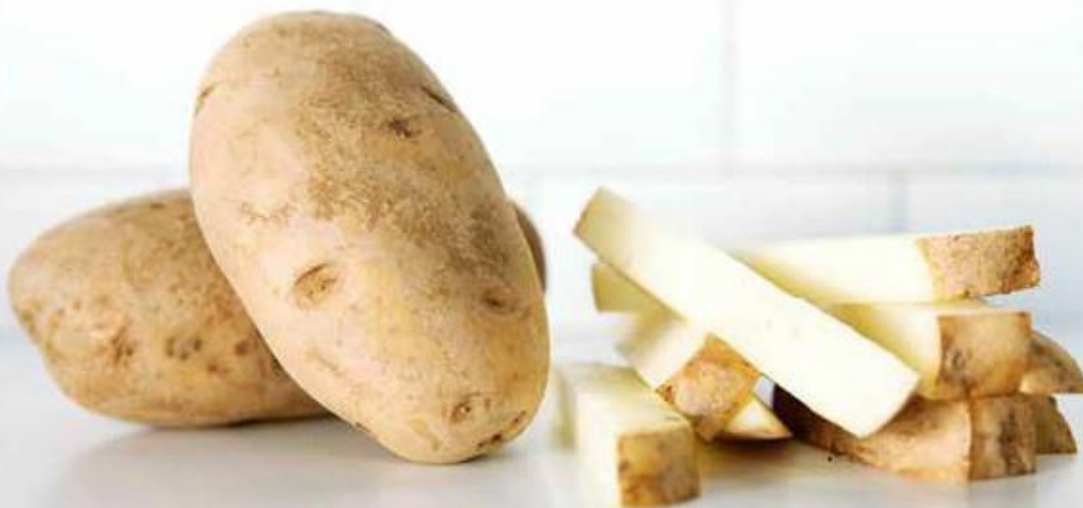
Arctic™ Apples, BARI Bt eggplant, and pink flesh pineapple are present on the List of Bioengineered Foods but apple, eggplant, and pineapple have not previously been on the Non-GMO Project High-Risk List because their GM counterparts do not meet the Non-GMO Project's definition of being widely commercially available. Non-GMO Project Participants must demonstrate non-GMO sourcing of apples, eggplant, and pineapple before 2022 in order to remain compliant with the Non-GMO Project Standard. The Non-GMO Project encourages Participants to begin preparing for compliance now.

## **ACTION THRESHOLDS**

Both the Non-GMO Project Standard and the NBFDS include some provisions for inadvertent or technically unavoidable GMO presence.

The NBFDS relies on intent to determine the level of permissible GMO content, which can be as high as 5% per ingredient. Food that was intentionally sourced non-BE but containing detectable modified genetic material up to the 5% threshold can still avoid a BE disclosure if the presence of that material is inadvertent or technically unavoidable. The NBFDS allows manufacturers to use sourcing documentation to demonstrate this.

The Non-GMO Project Standard uses [Action Thresholds and eligible Micro Exemptions](#) to account for inadvertent or technically unavoidable GMO presence in the supply chain. For compliance with the Non-GMO Project Standard, the Action Threshold for Products for human consumption is 0.9%.





# Changes to the Non-GMO Project Standard Version 15

The Non-GMO Project made changes to Version 15 of the Non-GMO Project Standard in order to help Participants demonstrate compliance with the NBFDS more easily. These changes increase the rigor of the Non-GMO Project Standard by adding new High-Risk crops, tightening the rules regarding Micro Exemptions, and clarifying expectations for sourcing non-GMO Inputs.

## **ADDITIONAL HIGH-RISK CROPS**

The Non-GMO Project's High-Risk List is expanding to include apple, eggplant, and pineapple. While the Non-GMO Project does not consider any of these crops or their derivatives to be widely commercially available (which is why they have not been on the High-Risk List before), they are being proactively added in order to align with the NBFDS List of Bioengineered Foods.

Participants who use these crops and their derivatives in their Products should be able to demonstrate that they are intentionally sourced from non-GMO sources. This means that Participants or their suppliers may be asked to sign affidavits attesting to the non-GMO status of these Non-Testable High-Risk Inputs and/or submit additional documentation to demonstrate compliance. Participants must be sourcing non-GMO apple, eggplant, and pineapple before 2022 in order to remain compliant with the Non-GMO Project Standard.

## MICRO EXEMPTIONS

The Non-GMO Project Standard was designed to encourage as much change as possible at the most impactful points in the supply chain. This requires a balance of meaningfulness and achievability. The Non-GMO Project Standard has always included provisions for Micro Exemptions because they help maintain that balance. The rules that govern those Micro Exemptions became more rigorous in Version 15, and they are detailed in the current version of the [Non-GMO Project Standard](#).



All Micro Inputs will now be examined to some degree even when they are not subject to a full evaluation. Participants may not use BE foods in Verified Products, even as Micro Exemptions; this includes enzymes and microorganisms, and any Input that the Participant knows to be a BE food. To determine if an Input is a BE food, please consult the AMS.

Participants are advised to retain all documents demonstrating the non-BE and non-GMO status of Inputs and consult their Technical Administrator (TA) to determine if a given Input is eligible for Micro Exemption according to the Non-GMO Project Standard.

## SOURCING NON-GMO INPUTS

Participants must source Major, Minor, and most Micro High-Risk Inputs from non-GMO sources. This has always been true, but to avoid any doubt or confusion, the Non-GMO Project Standard now says so explicitly. The best way to comply with the Non-GMO Project Standard is to also intentionally source all High-Risk Micro Inputs from non-GMO sources.

Supply chain Participants selling business-to-business rather than direct-to-consumer are advised to leverage this requirement to secure downstream clients. Advertising the Verified status of wholesale Products and supplying a Certificate of Verification will help attract clients who seek to demonstrate a non-GMO attribute for their own Products.

## ACTUAL KNOWLEDGE

Regardless of all other rules in the Non-GMO Project Standard, if a Participant knows that an Input not on the NBFDS List of Bioengineered Foods meets the definition of a BE food and contains detectable modified genetic material, it may not be used in a Non-GMO Project Verified Product regardless of amount. Micro Exemptions will not be granted to such an Input. This may impact certain Participants who currently use Micro-exempted enzymes or yeasts in their Products.



# Frequently Asked Questions

## **HOW DOES NON-GMO PROJECT VERIFICATION HELP PRODUCTS COMPLY WITH THE NBFDS?**

The Non-GMO Project Standard is intended to meet and exceed the requirements to avoid a BE disclosure under the NBFDS. Non-GMO Project Participants subject their Products to a rigorous evaluation and generate the test results and other documents they may need in order to support compliance with the NBFDS.

The Non-GMO Project has worked closely with the AMS in order to understand and minimize any impact to our program. These extensive conversations indicate that documentation submitted to TAs to attain Non-GMO Project Product verification may also assist brands in fulfilling the necessary requirements to avoid disclosure.

Individual brands are responsible for submitting documentation to the AMS if they are audited.

## **HOW IS THE NBFDS PERCEIVED BY THE PUBLIC?**

Consumer groups have largely rejected the NBFDS rule as insufficiently meaningful and transparent. Commonly cited concerns include the narrow definition of BE food, the allowance of inaccessible disclosure methods (such as QR codes, which require specific technology to interpret), and the use of opaque terminology.

## **WILL PRODUCTS OF NEW GENETIC ENGINEERING TECHNIQUES SUCH AS CRISPR OR TALEN REQUIRE A DISCLOSURE?**

The NBFDS limits its definition of bioengineering to recombinant DNA techniques that result in finished food containing detectable modified genetic material that could not be accomplished through conventional breeding or occur in nature. It appears unlikely that most foods that are a result of techniques like gene editing would be subject to disclosure under the NBFDS because of a lack of clarity around what it means that changes could be found in nature. The final rule is not explicitly clear.

## **DOES MY PRODUCT REQUIRE A BE DISCLOSURE?**

The NBFDS is regulated by the AMS. The Non-GMO Project cannot provide guidance regarding your foods and the NBFDS. Please refer directly to AMS resources and contact the AMS directly with questions:

[National Bioengineered Food Disclosure Standard](#)

[Decision Tool – Do I need to make a bioengineered food disclosure?](#)

## **HOW CAN I GET THE BUTTERFLY SO CONSUMERS KNOW MY PRODUCTS ARE NON- GMO PROJECT VERIFIED?**

A great way to get started with Non-GMO Project verification is on our website. You can review the [Non-GMO Project Verification Guide](#) or connect with our team on the [Get Started](#) page.

## **CAN I MAKE A BE DISCLOSURE ALONGSIDE THE BUTTERFLY OR OTHER NON-GMO PROJECT TRADEMARKS ON THE SAME PRODUCT?**

According to the Non-GMO Project Standard, goods that make a BE disclosure under the NBFDS cannot concurrently be Non-GMO Project Verified. The Non-GMO Project Butterfly or trademark language should never appear alongside a BE disclosure on the same Product packaging. The best way to provide consumer confidence via a rigorous and trustworthy Standard is to become Non-GMO Project Verified.

## **IF I PRODUCE A FOOD THAT HAS A “BE” DISCLOSURE AND A DIFFERENT PRODUCT THAT IS NON-GMO PROJECT VERIFIED, CAN I ADVERTISE THEM TOGETHER?**

This is currently permitted, provided the Butterfly is only used in association with Non-GMO Project Verified Products and/or the advertisement contains a disclaimer as to which Product(s) are Non-GMO Project Verified. As a reminder, all marketing materials utilizing the Non-GMO Project’s trademarks must be sent to The Non-GMO Project marketing department for review and approval. If the advertisement needs to be altered in any way, the marketing team will let you know.

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*The information contained in this guide is provided for general informational purposes only, and should not be construed as legal advice on any subject matter. You should not act or refrain from acting on the basis of any content included in this guide without seeking legal or other professional advice. For specific questions about the NBFDS or compliance with the NBFDS, please contact the AMS.*

