

State and Region Differences Regarding GMOs

Managing Communications and Perceptions

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Innovative Foods Staff

State and Region Differences Regarding GMOs

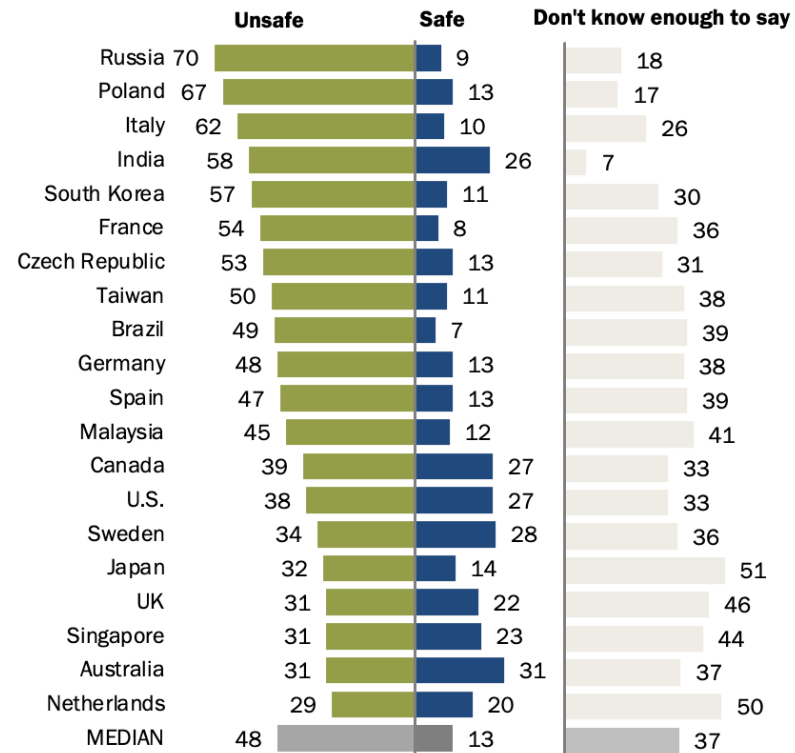
Lexicon, Legislation, & Labeling

Perception of GMO food safety



Widespread skepticism about the safety of genetically modified foods

% who say genetically modified foods are generally ___ to eat



Note: Respondents who did not give an answer are not shown.
 Source: International Science Survey 2019-2020. Q20.
 "Science and Scientists Held in High Esteem Across Global Publics"

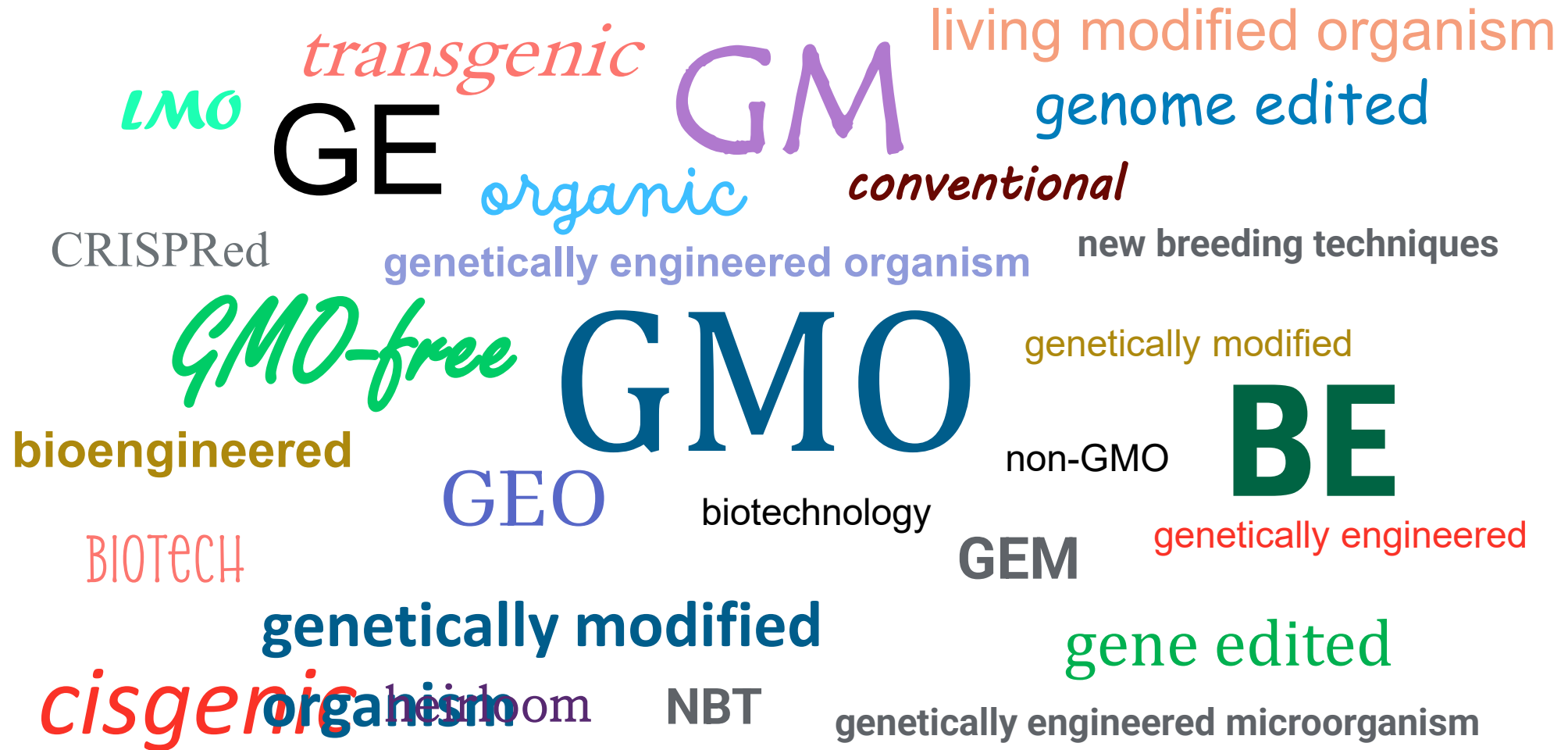
Source: [Pew Research Center](#)

Expert Bodies conclude safety of the technology and currently commercialized GMOs

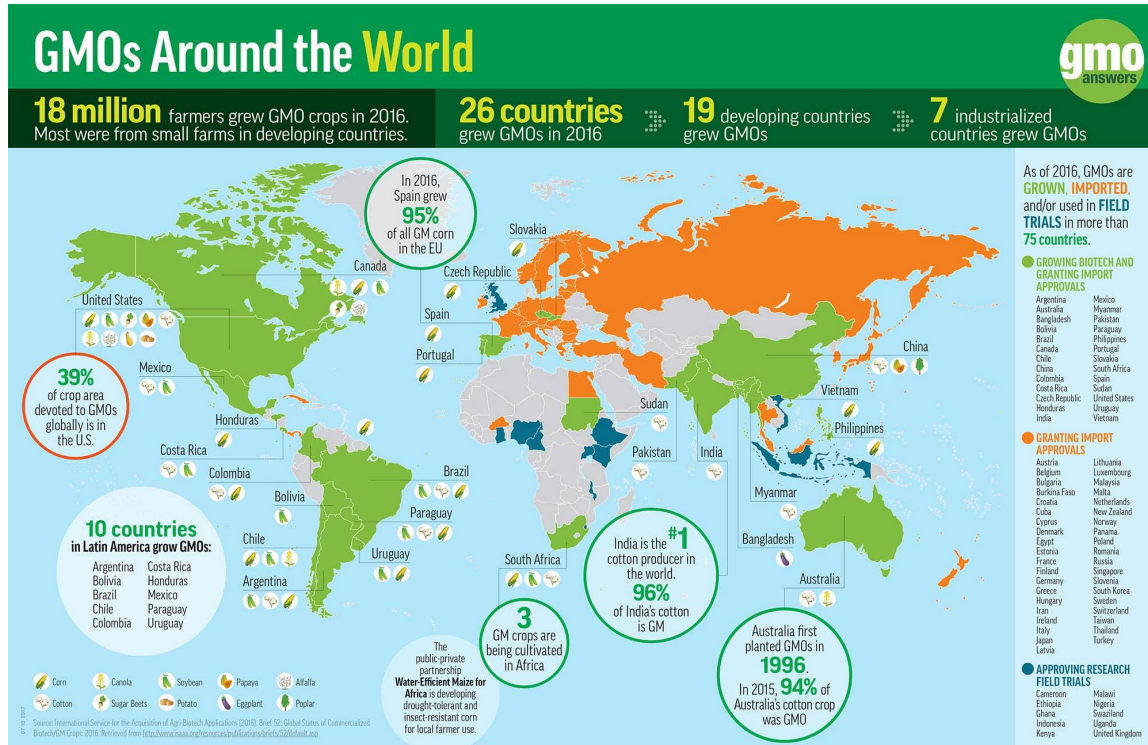
- FDA
- Health Canada
- Food Standards Australia and New Zealand
- European Food Safety Authority
- National Academy of Sciences
- American Medical Association
- Amer. Assn. for the Advancement of Science
- The British Royal Society
- Society of Toxicology

Compared to

Lexicon



Legislation



Source: [GMO Answers](#)

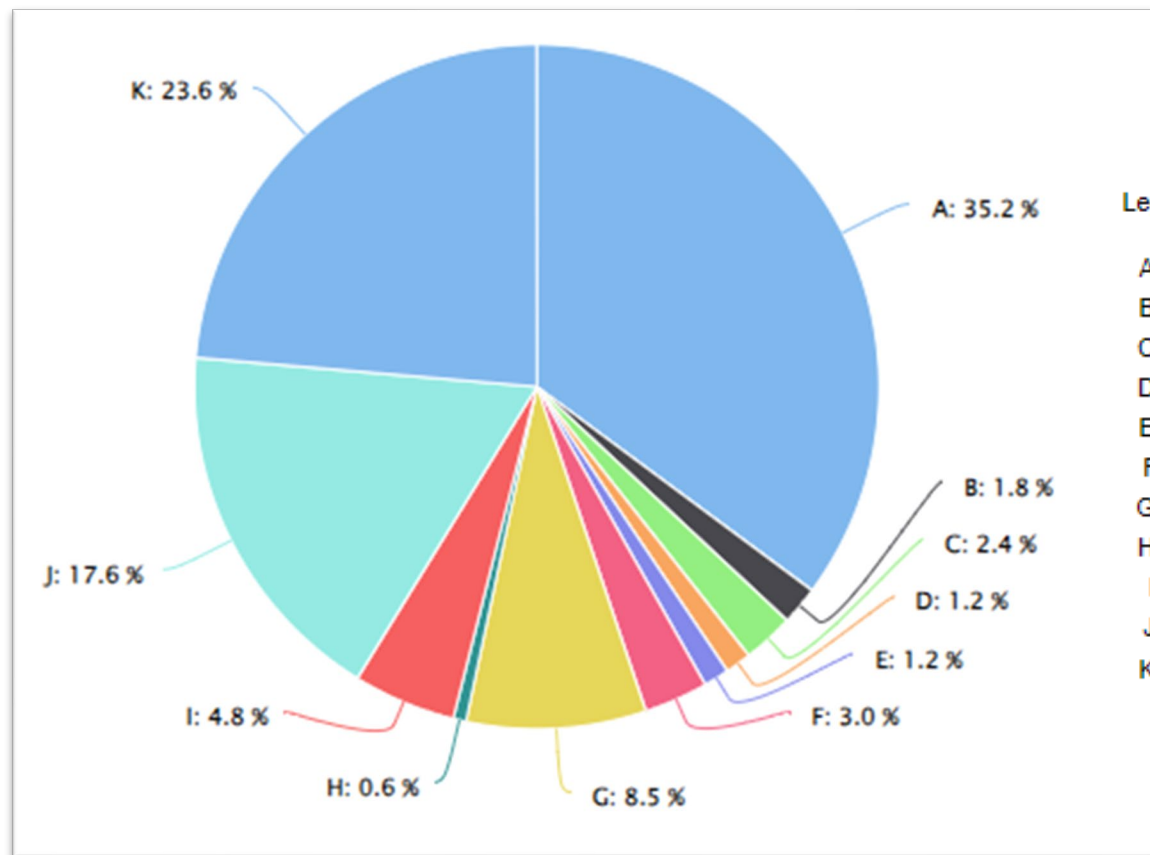
GLOBAL REGULATORY LANDSCAPE FOR GENE-EDITED CROPS

Established regulatory criteria for new breeding innovations in different world regions in the past decade



Source: [International Service for the Acquisition of Agri-biotech Applications \(ISAAA\)](#)

Labeling: around the World



Legend:

- A. My country has a mandatory and positive labeling regulation on GM food (i.e., It contains GMO).
- B. My country has a mandatory and negative labeling regulation on GM food (i.e., It does not contain GMO).
- C. My country has a mandatory and positive/negative labeling regulation on GM food.
- D. My country allows a voluntary and positive labeling on GM food.
- E. My country allows a voluntary and negative labeling on GM food.
- F. My country allows a voluntary and positive/negative labeling on GM food.
- G. My country has a mandatory and positive labeling regulation & allows a voluntary and negative labeling on GM food.
- H. My country has a mandatory and negative labeling regulation & allows a voluntary and positive labeling on GM food.
- I. Not applicable.
- J. My country is in the process of developing regulations/policies on GM food labeling.
- K. My country does not have any labeling regulations/policies on GM food.

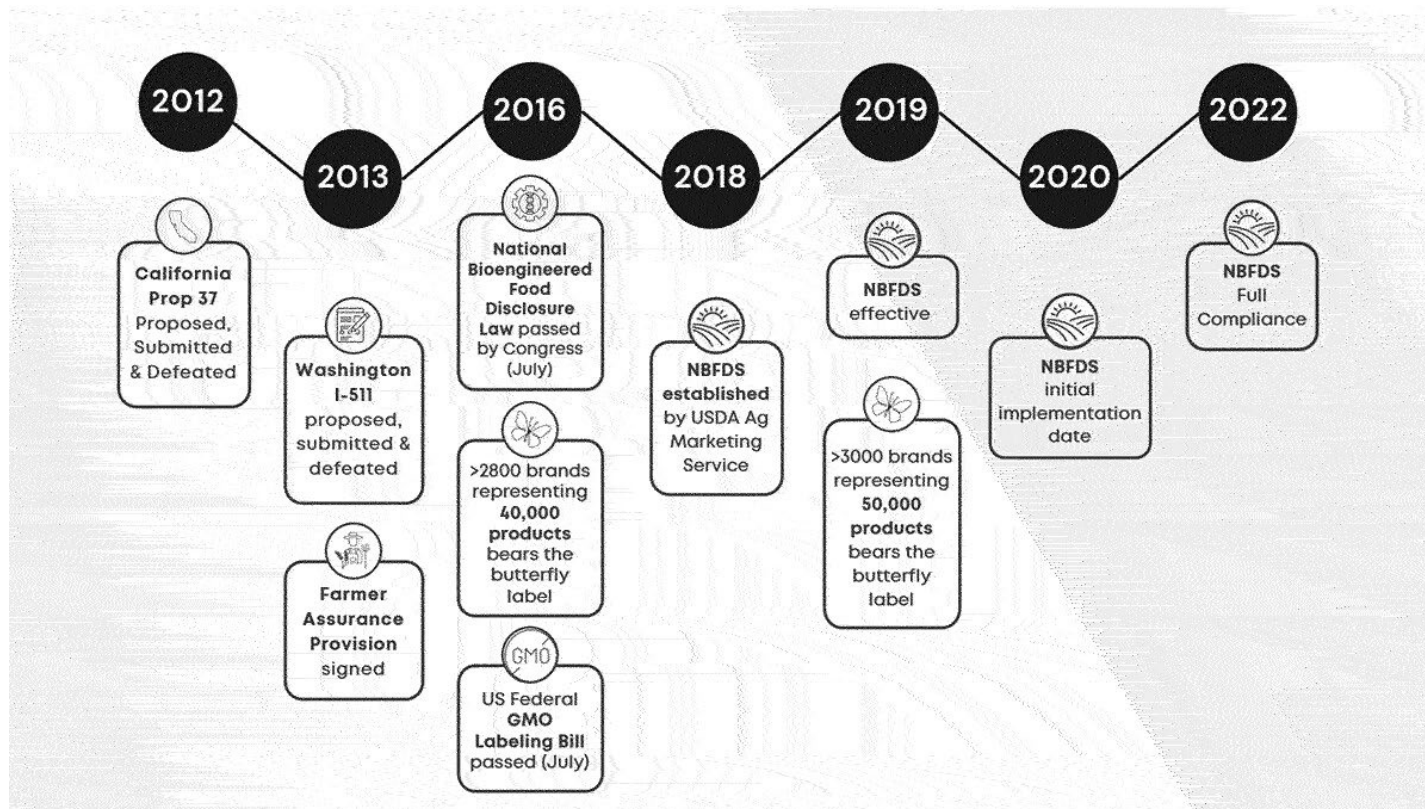
Source: [FAO Platform](#)

Labeling: in the US (2015)



Source: [Ucbiotech.org](http://ucbiotech.org)

Labeling: in the U.S. (2022)



National Bioengineered Food Disclosure Standard

- Retail food products that are bioengineered or contain bioengineered ingredients will say so on the label.
- Only foods that meet USDA's definition of bioengineered food will carry that disclosure.
- You will see words, a symbol, scannable links, text message instructions, or in some cases phone numbers or web addresses that convey the information.
- A bioengineered food disclosure is a marketing label, and does not convey any information about the health, safety, or environmental attributes of bioengineered food as compared to non-bioengineered counterparts.

Source: [C Ryan et al., \(2024\) GM Crops & Food. 15 \(1\): 51-66.](#)

Source: [USDA Agricultural Marketing Service](#)

Managing Communications and Perception

Feed Your Mind Initiative



**Agricultural Biotechnology
Education & Outreach**

**Human Foods Program
U.S. Food and Drug Administration**

Consolidated Appropriations Act of 2017

- *"Provided further, That of the total amount made available under this heading, \$3,000,000 shall be used by the Commissioner of Food and Drugs, in coordination with the Secretary of Agriculture, for consumer outreach and education regarding agricultural biotechnology and biotechnology derived food products and animal feed, including publication and distribution of science-based educational information on the environmental, nutritional, food safety, economic, and humanitarian impacts of such biotechnology, food products, and feed:..."* (P.L. 115-31, Consolidated Appropriations Act, 2017)
- The Fiscal Year (FY) 2018 Appropriations bill and the FY 2019 Appropriations bill included additional funding for the initiative

Partnering Offices	
CFSAN's Consumer Studies Branch	CFSAN's Education and Outreach Branch
Steering Committee (FDA, EPA, USDA)	
Working Groups	

Overview of Objectives

- **Objective 1:** Increase understanding of agricultural biotechnology, including what it means, other names used to identify it, the types of agricultural biotechnology and its evolution.
- **Objective 2:** Increase understanding of the environmental, nutritional, food safety, economic, and humanitarian impacts of agricultural biotechnology.
- **Objective 3:** Increase awareness of agricultural biotechnology regulation
- **Objective 4:** Establish FDA, USDA, EPA, and other organizations as a credible source for scientific information related to food safety, agricultural biotechnology, and genetically engineered (GE) foods.

Our Guiding Principles

- **Science-based**
 - Provide content based on current science
 - Test content and delivery with consumers
- **Consumer-oriented**
 - “Meet consumers where they are”
 - Address (don’t dismiss) concerns
- **Informational** (not promotional)

Primary and Secondary Audiences

Primary Target Audiences	Secondary Target Audiences
General consumers	Health professionals
African American consumers who cook	
Hispanic consumers who cook	Health educators
Young adults who cook	Stakeholders
Moms who are primary grocery shoppers	

Feed Your Mind Initiative

Resources

This collaborative effort has resulted in resources for consumers, health care professionals, teachers, and health educators including:

- 15 downloadable fact sheets and infographics
- 10 videos for consumers and health educators
- An online stakeholder toolkit
- A continuing education program
- Curricula for middle and high school students

www.FDA.gov/FeedYourMind

www.FDA.gov/AlimentaTuMente

www.FDA.gov/EducationResourceLibrary

Fact Sheets & Infographics

Sample of Downloadable Materials

FEED YOUR MIND

GMOs 101: YOUR BASIC QUESTIONS ANSWERED

GMO foods have been available to consumers since the early 1990s. Since then, the U.S. Food and Drug Administration (FDA), U.S. Environmental Protection Agency (EPA), and U.S. Department of Agriculture (USDA) have worked together to ensure that crops produced through genetic engineering are safe for people, animals, and the environment. Despite there being a wide range of foods—GMO and non-GMO—available to consumers, there is some confusion around what GMOs are and how they are used in our food supply.

What makes it a GMO?

A GMO (genetically modified organism) is a plant, animal, or microorganism that has had its genetic material (DNA) changed using technology that generally involves the specific modification of DNA, including the transfer of specific DNA from one organism to another. Scientists often refer to this process as genetic engineering.¹

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HOW ARE GMOs MADE?

"GMO" (genetically modified organism) has become the common term consumers and popular media use to describe foods that have been created through genetic engineering. Genetic engineering is a process that involves:

- Identifying the genetic information—or "gene"—that gives an organism (plant, animal, or microorganism) a desired trait.
- Copying that information from the organism that has the trait.
- Inserting that information into the DNA of another organism²
- Then growing the new organism.

The following example gives a general idea of the steps it takes to create a GMO plant. This example uses a type of insect resistant corn called "Bt corn." Keep in mind that the processes for creating a GMO plant, animal, or microorganism may be different.

¹ <https://www.fda.gov/food/new-class-varieties/understanding-new-class-varieties> March 2025 — 1

FEED YOUR MIND

A TIMELINE OF GENETIC MODIFICATION IN MODERN AGRICULTURE

For thousands of years, people have worked to improve crops, livestock, and the food we eat. In the 20th century, scientists found a way to modify food faster and more precisely by changing an organism's DNA. The process, called genetic engineering, produces genetically modified organisms (GMOs). The timeline highlights key dates in the development of GMO foods.

- 1940** The first genetic map is produced, an important step in understanding how genes are passed on.
- 1953** Scientists discover the structure of DNA, the molecule that carries genetic information.
- 1973** Recombinant DNA technology is developed, allowing scientists to combine DNA from different sources.
- 1982** The first genetic engineering patent is granted for a genetically modified bacterium.
- 1986** The first genetically modified food, a tomato, is approved for sale.
- 1992** The first genetically modified food, a soybean, is approved for sale.
- 1994** The first GMO product, a soybean, is approved for sale.
- 1990s** The first GMO products, including soybeans, corn, and cotton, are approved for sale.
- 2003** The first GMO product, a papaya, is approved for sale.
- 2005** The first GMO product, a zucchini, is approved for sale.
- 2015** The first GMO product, a salmon, is approved for sale.
- 2016** The first GMO product, a pig, is approved for sale.
- 2017** The first GMO product, a cow, is approved for sale.
- 2019** The first GMO product, a chicken, is approved for sale.

Source: USDA

FEED YOUR MIND

WHERE CAN YOU FIND GMOs?

GMOs have been on the market since the 1990s and are a common part of our food supply. Among the GMOs available to consumers in the U.S., there are certain types of alfalfa, apples, papaya, corn, cotton, peas, potatoes, soybeans, summer squash, sugar beets, and pineapple. A farm-raised Atlantic salmon and pork from a type of pig have been approved for food use, but you may not see them in the market because they are not widely available.

Certain types of GMOs have a disclosure that lets you know if the food is "bioengineered." The National Bioengineered Food Disclosure Standard defines bioengineered foods as those that contain detectable genetic material that has been modified through certain lab techniques and cannot be created through conventional breeding or found in nature.

Summer squash, Apples, Alfalfa, Soybeans, Corn, Pink pineapple, Papaya, Cotton, Potatoes, Sugar beets, Canola, Atlantic salmon, QdSafe pig.

Feed your mind with more GMO facts at www.fda.gov/feedyourmind

Source: FDA

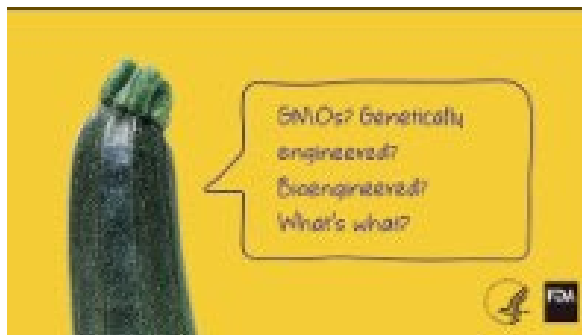
Videos

Sample of videos for consumers and health educators

What GMO crops are grown and sold in the U.S.?



Is it Called GMO or Something Else?



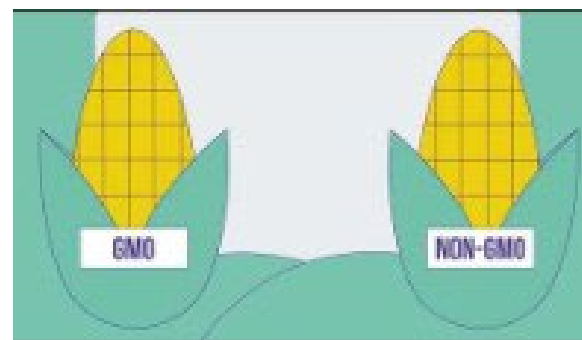
How are GMO plants made?



What kinds of genetic modifications are there for crops?



GMOs and Food Safety: A Guide for Health Educators



GMOs, Farm to Table



Online Stakeholder Toolkit

Spread the Word About Feed Your Mind: Stakeholder Toolkit



The *Feed Your Mind* initiative offers science-based, plain-language information in the form of web content, fact sheets, infographics, and videos that you can share with your constituents, members, partners, and other stakeholders to increase their knowledge and understanding of GMOs.

Help spread the word about the U.S. Food and Drug Administration's (FDA's) *Feed Your Mind* initiative by using the sample newsletter and website content, social media posts, images, videos, and educational resources below.

Note: To use the images shown below, copy and paste or right-click on the image and save to your computer.

- Sample Text for Newsletters, Blogs, or Websites ▾
- Facebook and Twitter Posts ▾
- Videos ▾
- Continuing Education Program for Healthcare Professionals ▾
- Downloadable Images ▾
- Downloadable Fact Sheets ▾
- Drop-in Articles ▾

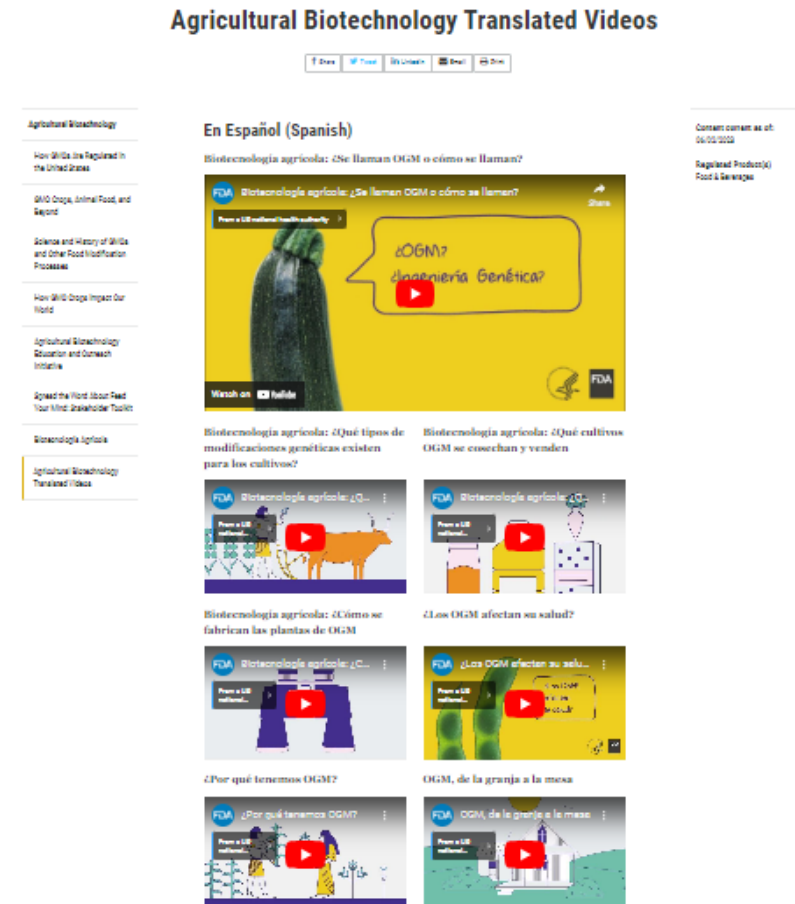


Social Media Messages

A GMO is a plant, animal, or organism that has had its DNA changed. Learn more about GMOs with FDA's #FeedYourMind initiative at www.fda.gov/feedyourmind.

Translated Materials

- Worked with the Government Publishing Office to translate a selection of *Feed Your Mind* downloadable materials and videos into:
 - Spanish
 - Chinese (simplified/Mandarin)
 - Navajo
- Materials are now available on the FDA.gov webpage:
 - [Downloadable Fact Sheets](#) – on the Stakeholder Toolkit page
 - [Agricultural Biotechnology Translated Videos](#)



Implementation and Dissemination Overview



Feed Your Mind Implementation Tactics
Stakeholder development and engagement
FDA-owned channels
Paid media
Earned media
Conferences and exhibiting
Mat article releases
Podcast promotion

Conclusions

- *Feed Your Mind* is a critical effort to **increase awareness and understanding of agricultural biotechnology** and GE foods among consumers, health professionals, and educators via science-based educational materials
- Paid media ad campaigns have been a **highly effective tactic for dissemination and outreach** of education materials utilizing a range of implementation tactics
- Process and outcome evaluations have demonstrated the effectiveness of these approaches, reinforcing that the initial strategy should continue to guide efforts:
 - Present agricultural biotechnology in a **balanced manner** in which all messages and materials **deliver objective, science-based information**
 - **Use credible channels and messengers** to disseminate information to invoke a high level of perceived credibility to increase the likelihood that the messages will be attended to, understood, and internalized as true

Examples of Implementation Tactics

Continuing Education Program

Understanding GMOs



Analytics Summary (July 1, 2022 – March 31, 2023):

- As of March 31, 2023, there were 568 completed courses
- Most participants “*strongly agreed*” or “*agreed*” that because of this activity, they are now able to:
 - Explain what agricultural biotechnology means
 - Explain the federal regulations of agricultural biotechnology
 - Educate their patients/ clients about the topic

Curricula for Middle and High School Students

1. Online Curriculum (Metrics through July 31, 2024)

- High School (2020 edition): Posted on July 2020
 - Copies viewed/saved* – 21,490
- Middle School (2020 edition): Posted on January 2021
 - Copies viewed/saved* – 6,152

2. Teacher Training (Metrics through July 31, 2024)

- Synchronous Online Platform
 - 1-week summer training program 2020-2023: 95 teachers completed
 - Day-long train-the-trainer workshops 2020 – 2023: 618 teachers completed
- Self-paced Online Platform (one topic per 10-hour course)
 - 10-hour SOFS Ag Biotech training launched Oct. 2023
 - Pre-test score avg. 44.25, Post-test score avg. 88.75
 - 17 teachers completed, 9 teachers in progress



Examples of Paid Ads

Google Search

Genetically Modified Organism | The Making of GMOs | Examples of GMOs
 Ad www.fda.gov
 A lot goes into making a GMO, or Genetically Modified Organism. Read the list of GMOs that are grown in the U.S.

Regulation Learn about the Government's role around GMO regulation	GMO Crops Find the types of GMOs grown in the U.S.
History of GMOs Learn about 10,000 years of changing food	Farming with GMOs Learn why farmers use GMOs

Display

The New York Times

Share: Through Medium Skip Gads Tea Watch: Gillian Flynn Showcasing Debut Go Deep: Reporters' Google D

FOR YOU AND **GMO?** FDA

WHAT TO COOK

What to Cook This Weekend

Google Video

YouTube

Skip Ad ▶ 00:31

Native

Ad by FDA.gov

There Are a Few GMOs

What makes the list for GMO crops? How are they are used?

Programmatic Video Ads

Better Homes & Gardens

DECORATING HOME IMPROVEMENT GARDEN HOUSEKEEPING RECIPES SHOPPING ABOUT US

maintained roast salmon and tender buckwheat noodles. Offer each of those building blocks with a bowl of carrot-miso dressing on the side, and everyone can construct their dream creation.

VIEW RECIPE

Related: [15 Satisfying Meals in a Bowl You Can Make Instead of Soup](#)

03 Pan-Roasted Cabbage, Carrot, and Celery Root

Trending Videos

Facebook

FDA U.S. Food and Drug Administration

Sponsored

Humans have been genetically modifying food for more than 10,000 years.

Spokesplant: sugar beet

FDA

FDA.GOV

Why Do We Have GMOs?
Feed your mind with food facts.

Learn More

Instagram

Instagram

fda Sponsored

How are GMO plants made?

Learn More

fda See how scientists change the DNA of plants through genetic engineering.

LinkedIn

FDA 613,831 followers Promoted

All of the GMO information you want. All in one place. Free print materials are available to order at FDA CFSAN's Education Resource Library.

FEED YOUR MIND

FREE!

FDA

FDA CFSAN's Education Resource Library

www.fda.gov

Learn more

Mat Article Releases

6 Things to Know About GMOs

FAMILY FEATURES

You may have heard of "GMO" foods before, but what you may not know is the science and purpose behind them. "GMO" is a common term used to describe foods that have been created through genetic engineering. A GMO (genetically modified organism) is a plant, animal or microorganism that has had its genetic material (DNA) changed using technology that directly modifies the results of specific DNA from one organism to another.

Although GMO foods are widely available to consumers, there is consumer confusion around what GMOs are and how they are used in the United States' food supply. As part of the Food Trust Year 1000 initiative, the U.S. Food and Drug Administration (FDA) provides science-based information to help consumers better understand GMOs.

1. Only a few types of GMO foods are sold in the United States. Soybeans, corn, cotton, alfalfa, papaya, papaya's relatives, winter squash, sugar beets, pineapple and AquAdvantage salmon comprise the list of GMO foods currently sold in the U.S. Only a few of these are available in the produce sections of grocery stores. Most are found used as food ingredients that are then used in other food products like cereals and snack chips.
2. GMOs can help farmers grow crops that are resistant to disease and insects. Consumers are not allowed to buy or modify crops that contain or are bred from seeds that have been more than 16,000 years. Genetic engineering lets scientists take a beneficial gene from one organism and insert it into a plant. Plants can include higher crop yields, less crop loss, longer storage life, better appearance, better resistance to some combination of these traits.




3. GMO foods are as safe to eat as their non-GMO counterparts. The FDA, U.S. Environmental Protection Agency and U.S. Department of Agriculture work together to make sure GMOs are safe for humans, plants and animal health. GMO foods are carefully studied before being sold to the public to make sure they are safe. Some GMO plants have been modified to improve their nutritional value. For example, some GMO soybeans contain healthier oils, which can replace oils containing trans fat.
4. GMO foods are as more likely to cause allergies than non-GMOs. You will not be allergic to a GMO food just because you're allergic to the non-GMO version of the food. For example, if you're not allergic to foods made with non-GMO soy, you won't be allergic to foods made with GMO soy. When developing GMOs, scientists try to make sure allergens aren't transferred from one food to another.
5. GMOs can reduce farmers' use of pesticides. Some GMO plants contain incorporated pesticides to make them resistant to insects. This lowers farmers' need for use of other pesticides.
6. A "bioengineered" disclosure will be on some of the foods you eat. The National Bioengineered Food Disclosure Standard requires bioengineered foods to be labeled by 2022 with text on the packages that reads "bioengineered food," the bioengineered food's origin or direction for using any other text to find the disclosure. Sometimes the terms "bioengineered," "GMO" and "genetic engineering" are used interchangeably, but labels required under the Standard use the term "bioengineered."

Find more answers to your questions about GMOs at fdagov/foodbiotech.

GMOs Explained

FAMILY FEATURES

Many consumers are curious to learn more about the purpose and safety of GMOs. "GMO" is a common term used to describe foods made from organisms, plants, microorganisms and animals that have been created using technology called genetic engineering. Genetic engineering allows scientists to copy a gene with a desired trait from one organism and put it into another.

Purpose of GMOs:

Humans have modified crops and animals to suit their needs and tastes for thousands of years. Crossbreeding, selective breeding and cloning breeding are examples of traditional ways to make these gene changes, and they have been used to create crops like wheat, corn, rice and soybeans. These methods often involve crossing different plants from the same species, or a plant from one species with a different species. For example, the first hybrid corn was created in 1874 by crossing two different types of corn. Modern technology allows scientists to use genetic engineering to take specific beneficial genes like insect resistance or drought tolerance, and transfer it into a plant without also transferring undesirable genes, which sometimes occurs in traditional plant breeding. The reason to use genetic engineering is that they were thousands of years ago higher crop yields, less crop loss, longer storage life, better appearance, better resistance to combination of these traits.

Some GMO plants have been modified to improve their nutritional value. An example is a GMO soybean with healthier oils. Higher seed oil content can be used to replace oils containing trans fats. Scientists are continuing to look for new ways to develop foods with improved nutritional value and other useful traits.

Safety of GMOs:

Multiple agencies within the United States government work to regulate GMOs, including the U.S. Food and Drug Administration (FDA), U.S. Environmental Protection Agency and the Animal and Plant Health Inspection Service in the U.S. Department of Agriculture. Each agency plays a part in ensuring GMOs are safe for humans, plant and animal health. For example, the FDA makes sure foods from the GMOs it regulates meet the same safety standards as the non-GMO version. The three agencies also monitor the impact of GMOs on the environment.

Research shows GMO foods currently on the market are no more likely to cause allergic reactions than non-GMO versions of the same foods. Most food allergens are found in common crops like wheat, corn, soybeans, tree nuts, milk, eggs, wheat, soy, peanuts, shellfish and fish.

The crop GMOs are created are used to grow products which are produced in a plant. Selection performs best to make sure these new proteins are safe for humans. The type of testing, called allergenicity testing, is always part of the process for developing GMOs. As part of this testing, developers consider whether any substances added to the food have characteristics of allergens, such as whether they come from an allergen source.

Learn more about GMOs and their impact on your health at fdagov/foodbiotech.




Updated Food Labeling

Certain types of GMOs have a disclosure that lets you know if the food is a bioengineered food. Bioengineered food is the term that Congress used to describe certain types of GMOs when they passed the National Bioengineered Food Disclosure Standard.


The Standard establishes requirements for labeling and lets you know if the food is a bioengineered food. Bioengineered food is the term that Congress used to describe certain types of GMOs when they passed the National Bioengineered Food Disclosure Standard.

FEED YOUR MIND

GMOs—DID YOU KNOW?


WHAT ARE GMOs?

"GMO" (genetically modified organism) is a common term used to describe a plant, animal or microorganism that has been created through genetic engineering. Genetic engineering allows scientists to transfer a gene with a specific beneficial trait from one organism to another.




WHAT GMOs ARE AVAILABLE IN THE UNITED STATES?

Alfalfa, apples, canola, corn, cotton, papaya, pink pineapple, potatoes, soybeans, summer squash and sugar beets. Only a few are available as fresh foods. Most are used to make ingredients that are then used in other food products like cereal and snack chips. A farm-raised Atlantic salmon and pork from a type of pig have been approved for food use. But you may not see them in the market because they are not widely available.



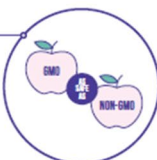
WHY DO WE HAVE GMOs?

Humans have used traditional ways to modify crops and animals to suit their needs and tastes for more than 10,000 years. Genetic engineering lets scientists make similar changes in a more specific way and in a shorter amount of time. Results include higher crop yields, less crop loss due to disease and insect damage, longer storage life, better appearance and better nutrition.



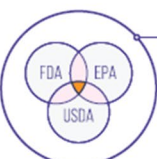
DO GMOs AFFECT YOUR HEALTH?

Research shows GMO foods are as safe to eat as their non-GMO counterparts. Some GMO plants have even been modified to improve their nutritional value. An example is GMO soybeans with healthier oils that can be used to replace oils that contain trans fats.




HOW ARE GMOs REGULATED?

GMO foods have been available to consumers since the 1990s. Since then, the U.S. Food and Drug Administration, U.S. Environmental Protection Agency and U.S. Department of Agriculture have worked to ensure foods produced through genetic engineering are safe for people, animals and the environment.



Discover more GMO facts at fdagov/feedyourmind.



Podcast Promotion



Curiosity Daily Podcast: GMO Food Science 101 and How to Hear Someone in a Noisy Room

Learn about GMOs with help from Dr. Patrick Cournoyer of the FDA. Plus: a trick for hearing someone in a noisy room.

December 16, 2021



Curiosity Daily Podcast: Future GMO Foods, The Thought Gap, How Your Brain Knows You're Uncomfortable

Learn about why researchers are developing new GMO foods like golden rice; why you underestimate how often others are thinking about you; and how your brain knows when you're uncomfortable and you need to change your position.

December 17, 2021

Podcast Ads (3/1/21-5/17/21)



Advertisement	Impressions	Spend
<i>Brains On (20s)</i>	159,929	\$4,063.43
<i>Brains On (60s)</i>	119,898	\$5,630.60
<i>The Sporkful</i>	95,011	\$4,275.00
Total	374,838	\$13,969.03

Resources



What can I do when I hear or see misinformation?

Help stop misinformation from spreading by doing three things:

- Identify misinformation.
- Don't contribute to the spread of misinformation.
- Direct people to health information from trusted sources like the FDA and our government partners, including [usa.gov/health](https://www.usa.gov/health), [coronavirus.gov](https://www.coronavirus.gov) and [vaccines.gov](https://www.vaccines.gov).

- Feed Your Mind - <https://www.fda.gov/food/consumers/agricultural-biotechnology>
- FDA Rumor Control: <https://www.fda.gov/news-events/rumor-control>
- FAO Toolkit - <https://openknowledge.fao.org/items/f76c7f0d-f303-4fb5-bbc1-7bac03399cf9>

References



- AAAS - <https://www.aaas.org/news/statement-aaas-board-directors-labeling-genetically-modified-food>
- American Medical Association - <https://policysearch.ama-assn.org/policyfinder/detail/genetically%20modified%20organism?uri=%2FAMADoc%2FHOD.xml-0-4359.xml>
- FAO GM Foods Platform - <https://www.fao.org/food/food-safety-quality/gm-foods-platform/en/> and <https://www.fao.org/food/food-safety-quality/gm-foods-platform/graph/labelling-requirement/en/>
- Food Insight - <https://foodinsight.org/ific-survey-food-ingredient-safety/>
- Food Standards Australia New Zealand - <https://www.foodstandards.gov.au/consumer/gmfood>
- GMO Answers - <https://gmoanswers.com/ask/what-countries-have-banned-gmos>
- Health Canada - <https://www.canada.ca/en/health-canada/services/food-nutrition/genetically-modified-foods-other-novel-foods/approved-products.html>
- ISAAA - <https://www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=20605>
- Pew Research - <https://www.pewresearch.org/short-reads/2020/11/11/many-publics-around-world-doubt-safety-of-genetically-modified-foods/>
- Ryan, et al (2024) - <https://www.tandfonline.com/doi/full/10.1080/21645698.2024.2318027>
- Society of Toxicologists - https://www.toxicology.org/pubs/statements/SOT_Safety_of_GE_Food_Crops_Issue_Statement_FINAL.pdf
- The Royal Society - <https://royalsociety.org/news-resources/projects/gm-plants/is-it-safe-to-eat-gm-crops>
- USDA Agricultural Marketing Service - <https://www.ams.usda.gov/rules-regulations/be/consumers>
- U.S. National Academies- <https://www.nationalacademies.org/our-work/genetically-engineered-crops-past-experience-and-future-prospects>
- Ucbiotech.org - https://ucbiotech.org/resources/labeling/US_GMO_states/index.html



Human Foods Program