

Coalition for Responsible Gene Editing in Agriculture

Frequently Asked Questions

What is the Coalition for Responsible Gene Editing in Agriculture?

The Coalition for Responsible Gene Editing in Agriculture was formed by The Center for Food Integrity to strive for global understanding and acceptance of the responsible use of gene editing technology in the food system. Coalition participants share the goal of earning trust in gene editing to provide consumers safe, nutritious and affordable food produced in sustainable systems.

Who are the members of the Coalition and how did they become involved?

The Coalition includes representatives from food companies, academia, civil society, technology developers, farmers and related associations. They became involved because they believe that gene editing has tremendous potential to solve food production challenges, and they aspire to work together to engage with stakeholders about responsible use of this technology.

Why did The Center for Food Integrity (CFI) form the Coalition? What is CFI's role?

The Center for Food Integrity facilitates the Coalition for Responsible Gene Editing in Agriculture, which was formed in 2016. Many consumers, and other stakeholders, are unfamiliar with gene editing – both the science behind it and the promise ahead. The Coalition has a mission to cultivate support for responsible users of gene editing in agriculture, and Coalition participants believe it is important to enhance transparency and engage stakeholders in that process.

The Coalition's administration, communication and stakeholder engagement functions are governed by the Coalition Operations Committee. The Operations Committee is responsible for the overall direction of the Coalition's programs, business operations and work. The Operations Committee is composed of paid Coalition members and appointed Advisor and Technical Advisor representatives from diverse organizations, including trade associations, academia, government and civil society.

How is gene editing defined by the Coalition?

For the work of the Coalition, gene editing is defined as a suite of technologies designed to intentionally alter predetermined DNA sequences in the genome and result in precise, targeted insertions, deletions or other changes for genetic improvement. The Framework for Responsible Use of Gene Editing in Agriculture was developed with non-transgenic applications in mind.

What are the benefits of the Framework for the value chain?

The Framework provides a mechanism for organizations to reassure consumers that they are using gene editing consistent with the principles of transparency, stakeholder engagement, safety and quality, trade and market considerations, social considerations, continuous improvement and verification. Food manufacturers and sellers may look for suppliers who follow the Framework to provide assurance to their customers.

How are gene-edited products different than GMOs?

In general, genetically modified organisms (GMOs) are created using transgenic technology that introduces DNA from a different organism. The transgenic process has been used in several crops and one food animal that is commercially available.

In contrast, gene editing often uses a cisgenic process, which involves precise changes to an organism's own genetic code without introducing DNA from another organism.

Why are GMOs not included in this Framework?

Genetically modified organisms have been produced and marketed for more than two decades. Their development and use are governed by a well-established regulatory structure as well as voluntary stewardship programs. Gene-edited plants, animals and microbes are regulated differently. The Framework provides a consistent method for building trust regardless of regulatory requirements.

What is the Framework for Responsible Use of Gene Editing in Agriculture? Why is it needed?

The Framework includes seven principles that build trust in gene editing with stakeholders: transparency, stakeholder engagement, safety and quality, trade and market considerations, social considerations, continuous improvement, and verification.

The development stages included in the guide are commercial research, commercial development, commercial sales and product lifecycle. The commitments under each principle vary by stage of development. Organizations may be involved in one or more stages and will be verified for conformance to the commitments that are relevant to their business operations.

Agriculture and food system leaders feel it is important to openly and transparently engage with stakeholders about how gene editing technology is being used as more products begin to enter the marketplace.

Who developed the Framework for Responsible Use of Gene Editing in Agriculture?

The Framework was developed by the Coalition for Responsible Gene Editing in Agriculture, which includes representatives from food companies, academia, civil society, technology developers, farmers and related associations. The Steering Committee included individuals from the following organizations:

- American Seed Trade Association
- BASF
- Benson Hill Biosystems
- Center for Science in the Public Interest
- Cornell University
- Costco Wholesale
- Corteva Agriscience
- Creighton University
- Food Marketing Institute
- Genus
- Good Cattle Company



- Grocery Manufacturers Association
- Paustian Enterprises
- PepsiCo
- Pivot Bio
- The Nature Conservancy
- World Wildlife Foundation

Participation in the Steering Committee does not imply endorsement of the framework by the individuals or their respective organizations.

What is the scope of the Framework for Responsible Use of Gene Editing in Agriculture?

The Framework is intended to apply to any corporation, business, academic or governmental organization that utilizes gene editing and/or its outputs in the commercial research, development or manufacture of food and agricultural products. The Framework applies to plants, animals, microbes and other organisms used in agriculture and food.

Program participants have committed to independent third-party verification consistent with the principles, commitments and management practices outlined in the Framework. This is in addition to an annual self-assessment of the organization's quality management systems and/or any mandatory or voluntary regulatory oversight activities.

Who administers the Framework?

The Coalition for Responsible Gene Editing in Agriculture will serve as the administrative and coordinating body. The Coalition is administered by The Center for Food Integrity.

The Framework will be evaluated annually by the Framework Oversight Committee. Oversight includes regular review of Framework content, soliciting input from users and stakeholders, and final authority for approval of the Framework's content. The committee is comprised of a cross-section of Framework users and stakeholders with an interest in gene editing.

How does an organization join the Coalition?

Companies, businesses and academic or government organizations that use gene editing or its outputs in food or agriculture are invited to join the Coalition. There are three membership levels that organizations can choose from – a Funder, Supporter and/or Framework Participant.

- Funder - \$25,000 annual donation and a seat on the Coalition Operations Committee
- Supporter - \$10,000-24,999 annual donation
- Framework Participant - \$1,000 annual membership fee and verification costs which are estimated to be \$500-2,000 every three years

Contact geneediting@foodintegrity.org to learn which option is best for your organization.



How can an organization support the Framework?

There are two ways organizations can show support for the Framework. The first option is to formally and publicly endorse the Framework. Endorsers will be recognized in the Coalition's communications and marketing materials and on its website.

Organizations can also join the Coalition as a Framework Participant and commit to achieving third-party verification. Coalition members gain access to information, guides and other resources to assist in implementing the Framework and continually improving their programs and systems.

Do all Coalition members have to be verified?

All Framework Participants are expected to work toward verification, initially by conducting a self-assessment to determine readiness and then by applying for verification. Ongoing membership will be dependent on achieving verification within 12-months of joining the Coalition. Verification confirms that members have programs and processes in place that demonstrate conformance with the principles and operational commitments of the Framework.

Who monitors that the Framework is being followed?-

Conformance with the Framework will be verified by a third-party verification organization approved by the Coalition, with supervision from the Framework Oversight Committee.

Does every application or product developed by a Coalition member have to be verified?

No. The Framework is intended to be verified at the organizational level, not the application or product level. The Framework is designed to verify that organizations have the overall policies, practices and procedures in place that assure interested stakeholders that they are acting in conformance with Framework principles and operational commitments.

Who will conduct the verifications?

Verification will be conducted by an independent third-party approved by the Coalition. Verifiers must meet robust qualification criteria, complete the Coalition for Responsible Gene Editing in Agriculture Verifier Training Program, and pass the examination to become qualified to conduct program verifications.

How much does it cost to be verified and who pays for it?

Participants will pay the variable cost for verification, required once every three years. Verification is estimated to cost between \$500 and \$2,000 depending on the organization and number of stages to be verified.

Is this program a substitute for the regulation of gene-edited products?

No. The Framework has no role in the regulation of gene-edited products. It is a set of commitments and recommended best practices that demonstrate an organization has good intentions and is using gene editing technology responsibly. The Coalition has no regulatory or oversight role in the approval or commercialization of gene-edited products.



How is an organization recognized for being verified? Does the program include on-package labels for food?

The Framework does not include an on-package label or claim program at this time. Once verified, organizations will receive a letter and certificate of conformance with the Framework for Responsible Use of Gene Editing in Agriculture and may use such designation in marketing, business correspondence or other communications.

