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**Report Highlights:**

This report provides the latest status of consumption, regulation, public perception, research, development, production, government policy, and use of agricultural biotechnology in Japan. In general, Japan uses a science-based regulatory approach for evaluating and granting approval for import and production of genetically engineered products. Japan is a major importer and consumer of products derived from biotechnology, but domestic production of agricultural crops from biotechnology remains extremely limited. Japanese regulators have established handling procedures for genome edited food and agricultural products. Nine genome edited products developed by Japanese and American companies have completed the necessary consultation and notification processes, four of which are being produced and distributed in the domestic market.

## Useful Acronyms

AMC: Agricultural Material Committee

CAA: Consumer Affairs Agency

CAS9: CRISPR Associated Protein 9

CRISPR: Clustered Regularly Interspaced Short Palindromic Repeats

FAMIC: Food and Agricultural Materials Inspection Center

FSC: Food Safety Commission

GE: Genetically Engineered

GOJ: Government of Japan

IP: Identity Preservation, Identity Preserved

JETRO: Japan Export Trade Organization

JFY: Japan Fiscal Year

LMO: Living Modified Organisms

MAFF: Ministry of Agriculture, Forestry, and Fisheries

MEXT: Ministry of Education, Culture, Sports, Science and Technology

MHLW: Ministry of Health, Labour and Welfare

MOE: Ministry of Environment

NARO: National Agriculture and Food Research Organization

NIAS: National Institute of Agro-biological Sciences

ST-3FT: Stage 3 Field Trial

TALEN: Transcription Activator-Like Effector Nuclease

## Executive Summary

Japan plays a pivotal role in the global agricultural biotechnology market as a major importer and user of food and feed produced using modern biotechnologies. The United States is the top exporter of genetically engineered (GE) products, primarily grains and oilseeds, to Japan, but other major suppliers include Canada, Brazil, and Argentina. In marketing year (MY) 2023/2024, Japan imported 15.3 million metric tons (MT) of corn, 3.1 million (MT) of soybeans, and 2.1 million MT of canola. Japan also imports billions of dollars' worth of processed foods from around the world, many of which likely contain GE-derived ingredients, such as oils, sugars, additives, and other components.

Despite broad regulatory approval by national authorities, Japanese farmers do not cultivate any genetically engineered food or feed products. As of October 2025, the Government of Japan (GOJ) has approved 210 products for environmental safety, including 156 approvals for domestic cultivation. The GOJ generally requires domestic field trials for the approval of GE crops. As of October 2025, the GOJ has approved 340 products for food use.

The GOJ completed its handling guidelines and product labeling policies for genome edited food in 2020. As of October 2025, three companies have notified the GOJ about five non-GE genome edited food products. The GOJ's regulatory approval of GE products is critical for U.S. agriculture and global food production and distribution. As a major importer of agricultural products, Japan's approval of GE products is critical; without it, market entry can be delayed and/or significant trade disruption may occur. The GOJ's GE regulations are largely science-based and transparent, and regulators typically review and approve new events within time periods that align with industry expectations for market release.

However, challenges remain. The rapid advancement of agricultural biotechnology has made it increasingly accessible for small- and medium-sized biotech firms to enter the market, and more biotech products are traded globally. In addition, the widespread availability of technologies, such as CRISPR, enables developers to create products that are indistinguishable from those produced with traditional breeding methods, often in shorter timeframes. As a result, Japan's regulatory agencies may require additional time and resources to process a growing number of requests for regulatory clearance.

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## CHAPTER I: PLANT BIOTECHNOLOGY

### PART A: Production and Trade

#### *a) RESEARCH AND PRODUCT DEVELOPMENT*

In Japan, agricultural biotechnology research is predominantly conducted by the public sector, government research institutes, and public universities. Although there are a number of private seed companies, the transition from research to commercial application of biotechnology traits remains extremely limited due to low demand for domestic application from food industry and farmers, largely driven by concerns about public acceptance. Furthermore, because most research takes place in public institutions and universities with research funds from the government, there is less pressure to recoup the financial investment in product development when compared to private sector companies or start-ups. While annual Government of Japan (GOJ) polling indicates that public concern about genetically engineered (GE) products has fallen significantly over the last decade, the lack of strong demand from domestic industry means product developers have little incentive to commercialize GE varieties.

The GOJ has a voluntary notification and consultation process for genome edited products and [Sanatech Life Science](#) (formerly Sanatech Seed) was the first organization to complete this process. As of October 2025, Sanatech Life Science has completed this process for three products and remains the only Japanese developer to have notified products for commercialization. All notified products can be found in Japanese, on [the CAA's list of notified products website](#). In addition, Kaneka Corporation—a Japanese international chemical manufacturing company—acquired Japan Tobacco's plant biotechnology business in 2020 and announced plans to apply genome editing technologies in its seed business to enhance high functionality and yield. While other seed companies use molecular tools for analytical purposes in their research, the application to a commercialized product is limited due to concerns about negative public perception of non-traditional breeding methods and the potential loss of customers.

Japanese researchers in both the public and private sectors have been releasing studies which could lead to commercial application. However, reluctance to handle products with biotechnology persists in Japanese industry and society, and there is little pressure from investors to recover financial investments. As a result, it remains uncertain if or when these studies will translate into marketable commercial products. That being said, given the historical high price of domestic rice in CY2025 ([JA2025-0009](#)), [a genome edited high-yield rice research](#) at NARO could be a timely candidate for pursuing commercialization. NARO has been conducting field trials of this rice ([NARO](#), in Japanese).

For commercialization by public researchers or research institutions, navigating the global regulatory environment could be a significant challenge. As noted in public sources, ([CropLife International](#)), a substantial proportion of product development costs are related to regulatory affairs. This is because, due to the nature of agricultural product distribution, regulatory approval is required not only in the country of product development and cultivation, but also in other countries and regions where the product or its processed derivatives may be distributed. In the case of genetically engineered products, regulatory affairs can account for one-third of total product development costs. Although products developed with genome editing technology may be considered “non-GE,” developers may still need confirmation or “approval” from regulatory authorities in other countries to avoid legal challenges. In addition, a lack of

resources in agricultural and food safety regulatory science could further limit commercialization opportunities for Japanese developers.

#### *b) COMMERCIAL PRODUCTION*

There is no commercial production of GE food or feed products in Japan, despite the Ministry of Agriculture, Forestry and Fisheries (MAFF) approving the cultivation of 161 GE agricultural products as of October 2025. The absence of GE products developed for the Japanese market, combined with clearing burdensome federal and local GE cultivation regulations make it almost impossible for Japanese farmers to cultivate GE agricultural products. However, with the increasing availability of information via the internet and social media, some new Japanese farmers have become vocal advocates in support of biotechnology as a tool for sustainable agricultural production. These farmers are increasingly approaching political leaders to garner support for farmers' access to new technologies. For more details, see "PART C: Marketing, a) PUBLIC/PRIVATE OPINIONS."

Sanatech Life Science began online sales of its nutritionally enhanced, genome edited fresh tomato after completing Japan's voluntary consultation and notification process in 2020. The tomato and tomato puree is currently available in some grocery stores in Tokyo, at select restaurants, and through online sales. Although some consumer groups vocalized resistance to genome edited products entering the marketplace, there is generally wide consumer acceptance.

As of October 2025, five non-GE genome-edited crops have been notified to the GOJ, including two products by non-Japanese developers, a [waxy corn product from Corteva Agriscience](#) and a high tuber set trait potato from J.R. Simplot. See the [link to the CAA's list of notified products](#), in Japanese.

#### *c) EXPORTS*

Japan does not export any GE agricultural products. In CY2024, Japan's agricultural exports were valued at approximately \$97.2 billion, including processed products (\$3.4 billion). Exported processed products may contain GE ingredients (USD=155 JPY, Link to MAFF's [home page](#), in Japanese). Japan's top three export markets in 2024 were the United States, Hong Kong, and Taiwan.

#### *d) IMPORTS*

##### Grains and Oilseeds

Japan imports almost 100 percent of its corn and over 93 percent of its oilseeds supply, much of which is GE soybean and canola. In MY2024/2025, Japan imported 15.3 million tons of corn, approximately a third of which was for food use, mainly as corn starch. FAS/Tokyo estimates nearly half to two-thirds of corn for food use imported by Japan is non-segregated or GE, but there are no official statistics available. For more information on the import of grains and oilseeds see [JA2025-0012](#) and [JA2025-0017](#).

##### Fresh Produce

The "Rainbow Papaya," a GE papaya grown in Hawaii, appears to be the only fresh GE product exported from the United States to Japan ([JA1048](#)).

#### *e) FOOD AID*

In JFY2024, Japan's food aid exports were valued at approximately \$39.7 million (1 USD = 155JPY), which was mainly comprised of Japanese Government reserve rice, to 21 countries and regions. For more, see [Ministry of Foreign Affairs](#) (in Japanese).

#### *f) TRADE BARRIERS*

Japan is one of the world's largest per-capita importers of GE products and has no significant trade barriers for approved products.

### PART B: Policy

#### *a) REGULATORY FRAMEWORK*

##### Regulatory Process

The GOJ requires regulatory approval prior to the commercialization of GE plant products for use as food, feed, and/or for environmental release depending on the nature and use of product. The following government organizations play a role in the regulatory framework.

- MAFF: Protection of biodiversity and feed safety
- Ministry of Health, Labour and Welfare (MHLW): Monitoring of food safety, including unapproved GE products
- Ministry of Environment (MOE): Responsible for biosafety regulations on living modified organisms under the Act on the Conservation and Sustainable Use of Biological Diversity
- Ministry of Education, Culture, Sports, Science and Technology (MEXT): Responsible for environmental protection and regulating lab studies in research institutes and academia
- Food Safety Commission (FSC): Food safety risk assessment of biotechnology products
- CAA: Food safety risk management (since April 1, 2024) and labeling of biotechnology products

Ministries are also involved in environmental protection and regulating lab studies. The FSC, an independent risk-assessment body under the [Cabinet Office](#), performs food safety risk assessments for CAA and feed-safety risk assessments (in terms of human consumption of livestock products grown with GE feed) for MAFF.

It is customary for regulators to first approve products for food, followed by feed, and then environment. The actual time needed for full approval varies significantly depending on each event and the familiarity of the product and trait. Approval is generally granted within eighteen months of formal acceptance of the dossier for food, feed, and/or environmental release if regulators characterize the product as having familiar traits. For a detailed diagram of the food, feed, and biodiversity approval process, see Figure 1.

Responsible ministries use external advisors to provide the scientific review and the risk assessment of GE products for which developers seek approval in Japan. The advisory committees and expert panels primarily consist of researchers, academics, and representatives from public research universities, and they report their findings and recommendations to the responsible ministries for final approval.

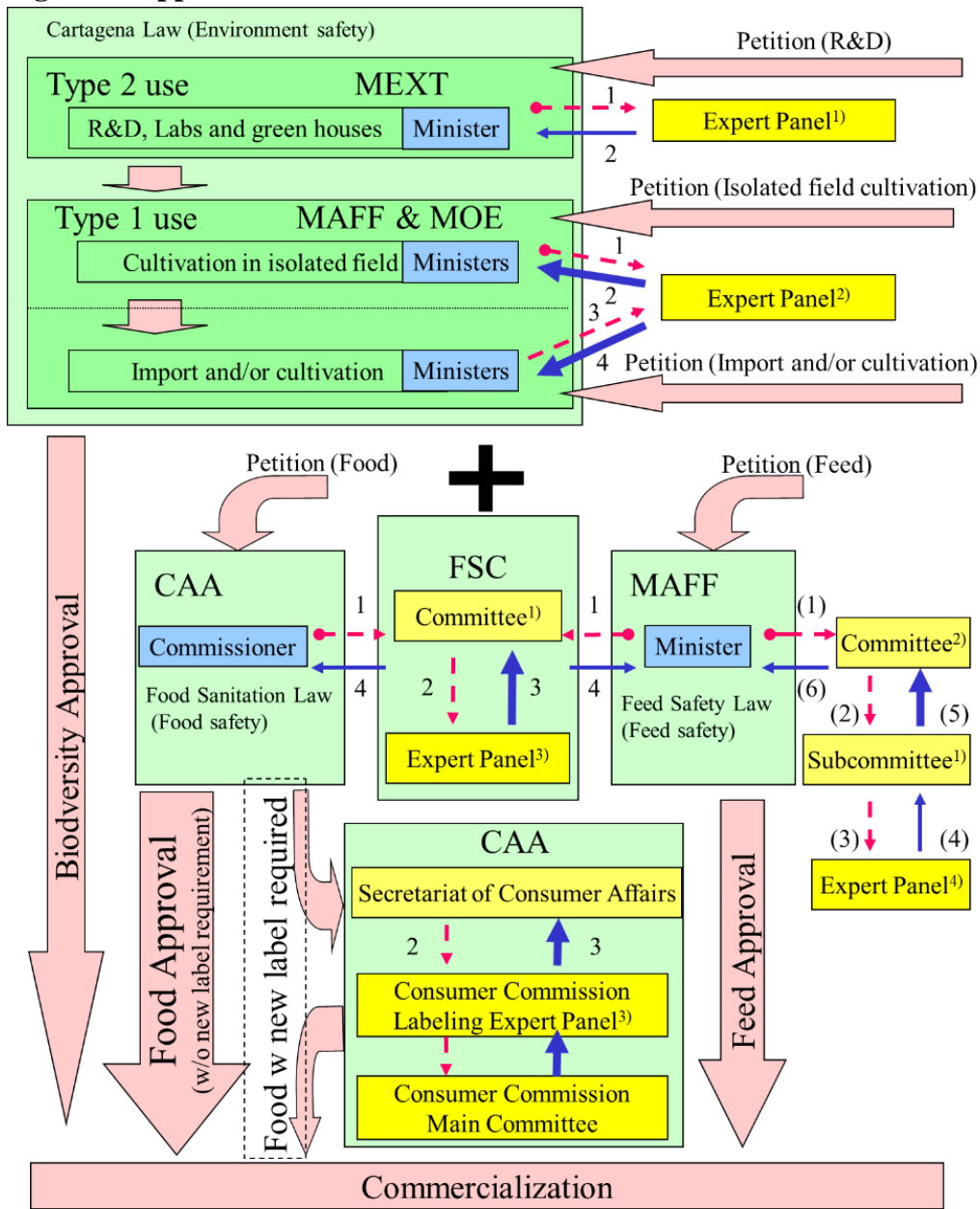
**Table 1: GE Product Safety Review by Approval Type**

Type of Approval	Examining body	Jurisdiction	Legal Basis	Main Points Considered
Food Safety	FSC*	Cabinet Office	Food Safety Basic Law	<ul style="list-style-type: none"> <li>• Safety of host plants, genes used in the modification, and the vectors</li> <li>• Safety of proteins produced because of genetic modification, particularly their allergenicity</li> <li>• Potential for unexpected transformations as the result of genetic modification</li> <li>• Potential for significant changes in the nutrient content of food</li> </ul>
Feed Safety	Agricultural Materials Council	MAFF Animal Product Safety Division	Law Concerning the Safety and Quality Improvement of Feed (the Feed Safety Law)	<ul style="list-style-type: none"> <li>• Any significant changes in feed use compared with existing traditional crops</li> <li>• Potential to produce toxic substances (especially with regard to interactions between the transformation and the metabolic system of the animal)</li> </ul>
Environment/ Impact on Biodiversity	Biodiversity Impact Assessment Group	MAFF Plant Product Safety Division	Law Concerning Securing of Biological Diversity (Regulation of the Use of Genetically Modified Organisms)	<ul style="list-style-type: none"> <li>• Competitive superiority</li> <li>• Potential production of toxic substances</li> <li>• Cross-pollination</li> </ul>

Note: CAA, MHLW and MEXT are not involved in conducting risk assessments; they are risk management bodies, provide monitoring of unapproved products, contact points for domestic research institutes and academia, and/or contact points for applications.

\*The point of contact for the application is CAA.

**Figure 1: Approval Process for GE Products**



- Type 1 Use: The use of living modified organisms (LMOs, therefore not limited to plants) outside facilities, equipment, or other constructions without containment measures
- Type 2 Use: The use of living modified organisms (LMOs, therefore not limited in plants) with containment measures
- Expert Panel 1: Expert Panel on Recombinant DNA Technology, Bioethics and Biosafety Commission, Council for Science and Technology, MEXT
- Expert Panel 2: Experts with special knowledge and experience concerning adverse effect on biological diversity selected by MAFF/MOE Ministers
- Expert Panel 3: Genetically Modified Foods Expert Committee, FSC
- Expert Panel 4: Expert Panel on Recombinant DNA Organisms, Agricultural Materials Council, MAFF
- Committee 1: Food Safety Commission

- Committee 2: Feed Committee, Agricultural Materials Council, MAFF
- Subcommittee 1: Safety Subcommittee, Feed Committee, Agricultural Materials Council, MAFF
- Red (broken) arrow: Request for review or risk assessment
- Blue (solid) arrow: Recommendation or risk assessment results (thick arrows: with public comment periods)
- Numbers beside the arrows indicate the order of requests/recommendations within the respective ministries.

### *Food Safety*

The CAA must approve GE plants intended for food use prior to commercialization in Japan. Upon receiving a petition for review from an applicant, CAA will undertake a preliminary check of the application, then request that the FSC complete a food-safety risk assessment. Within the FSC, there is a “Genetically Modified Foods Expert Committee” consisting of scientists from universities and public research institutes who conduct the scientific review. Upon completion, the FSC provides its conclusions to CAA for the official announcement of review completion. The FSC publishes the risk assessment results of GE foods in English on [its website](#). The FSC has set the standard processing time, from the receipt of dossier to the completion of review, at 12 months.

### *Feed Safety*

Under the Feed Safety Act, MAFF must approve all GE products intended for feed use prior to commercialization. When MAFF receives a petition, MAFF asks the Expert Panel on Recombinant DNA Organisms—part of the MAFF-affiliated Agricultural Materials Committee (AMC)—to review the GE crops for feed use. The Expert Panel evaluates feed safety for livestock animals and then the AMC reviews the evaluation. The MAFF Minister also asks the FSC’s Genetically Modified Foods Expert Committee to review human health effects from consuming livestock products from animals fed the GE crop under review. Based on the AMC and FSC reviews, the MAFF Minister approves the feed safety of the GE events.

As of June 20, 2025 (link to link to the [MAFF’s site](#), in Japanese), MAFF started to enforce its updated policy, “Procedures for Confirming the Safety of Feed and Feed Additives Utilizing Recombinant DNA Technology,” which includes a new application process for industry to seek safety approval of GE microorganisms related to industrial by-products. This follows a domestic public comment period and WTO notification in April 2025 ([JA2025-0024](#)).

The process for this new policy began in March 2024, when MAFF held a joint meeting for the AMC/Feed Sub-Committee and AMC/Feed Safety Division ([link to MAFF](#), in Japanese). The purpose was to establish new safety assessment criteria for feed produced using genetically engineered microorganisms, per the Safety Assessment Standards for Foods Produced Using Genetically Modified Microorganisms (links to FSC, original [Japanese](#) and [provisional English](#) translation). In September 25, 2024 MAFF discussed: 1.) That the draft of the newly established standard was prepared in line with the Safety Evaluation Standard for Genetically Engineered Foods (microorganisms) by the [FSC](#); and 2.) This standard will be applied in the future when there is an application for safety confirmation for feed produced using genetically modified microorganisms.

### *Impact on Biodiversity*

In 2003, Japan ratified the Cartagena Protocol on Biosafety. To implement the Protocol, Japan adopted the “Law Concerning the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms,” in 2004, commonly known as the “Cartagena Law.” Under

this law, MEXT requires Minister-level approval before performing early-stage agricultural biotechnology studies in laboratories and greenhouses. MAFF and MOE require joint approvals for the use of GE plants in greenhouses or labs as part of their assessment on biodiversity.

MAFF requires product developers to perform isolated field trials in Japan to collect scientific data as part of the approval process for biodiversity. MAFF and MOE must grant developers permission to begin the field trials as part of the requirement for the full environmental risk assessment for commercialization. MAFF has set a standard processing time of six months from the receipt of the dossier to approval to begin field trials. However, the processing timeline “clock” stops when the applicant revises the dossier, responds to MAFF’s questions, or prepares additional information. The preliminary consultation, confined field trial, and administrative procedures for an official notification is a prolonged process. More information can be found on [MAFF’s website](#) (link in Japanese).

The GOJ does not charge fees for the review of GE products.

**Table 2: Relevant Terminology**

<b>Legal Term (in local language)</b>	<b>Legal Term (in English)</b>	<b>Laws and Regulations where Term is Used</b>	<b>Legal Definition (in English)</b>
遺伝子組換え技術 (Idenshi Kumikae)	Genetic engineering	<a href="#">Law Concerning Securing of Biological Diversity</a> (in Japanese)	Technology for processing nucleic acids outside the cell Technology to fuse cells of organisms belonging to different taxonomic families
組換えDNA技術 (Kumikae Di Enu Ei Gijyutsu)	Recombinant DNA technique	<a href="#">Standards for the Safety Assessment of Genetically Modified Foods</a>	Technique that recombinant DNA molecules prepared by cleavage and recombination of DNA using enzymes or other methods are transferred to living cells for proliferation (the term refers to the techniques that overcome natural physiological reproductive or recombinant barriers and that are not techniques used in traditional breeding and selection)
遺伝子組換え生物 (Idenshi Kumikae Seibutsu)	Living Modified Organism (LMO)	Law Concerning Securing of Biological Diversity	Living organisms created by genetic engineering

第二種使用 (Dai Nishu Sihyou)	Type 2 Use	Law Concerning Securing of Biological Diversity	Use with the intention of preventing the spread of the LMO into the air, water, or soil outside of facilities, equipment, or other structures
第一種使用 (Dai Isshu Shiyou)	Type 1 Use	Law Concerning Securing of Biological Diversity	Use of LMO without measures in Type 2 use (e.g., open field cultivation)
宿主 (Shukushu)	Host	Standards for the Safety Assessment of Genetically Modified Foods	A living cell or individual organism into which DNA is transferred through recombinant DNA techniques
ベクター (Bekuta)	Vector	Standards for the Safety Assessment of Genetically Modified Foods	A carrier DNA that transfers the target genes or DNA fragment into the host for its proliferation or gene expression
ドナー (Donah)	Donor	Standards for the Safety Assessment of Genetically Modified Foods	A microbe, animal or plant that supplies the inserted DNA
ゲノム編集技術 (Genomu Henshuu Gijyutsu)	Genome Editing Technology	<a href="#">Food Hygiene Handling Procedures for Food and Additives Derived from Genome Editing Technology</a>	A technology to modify a specific site of a specific base sequence on a chromosome using an enzyme recognizing the base sequence in order to provide specific functions

#### *b) APPROVALS/AUTHORIZATIONS*

As of October 2025, Japan has approved over 340 GE products for food, 198<sup>1</sup> for feed, and 210 for environmental safety. Of the 210 environmental safety approvals, 156 are for environmental release, including cultivation. The 340 products approved for food do not include 38 stacked events (see section

<sup>1</sup> The number decreased by three from the last report as the authority changed the counting rule. Previously, MAFF counted each regulatory status change as a separate event. For example, if an event that was initially approved only for food and feed safety later received cultivation approval, it was counted for an additional event. After July 2025, the events with multiple approvals and status changes are counted as a single event.

*c, below*). For links to lists of approved products, please refer to the reference section at the end of this report.

#### *c) STACKED OR PYRAMIDED EVENT APPROVALS/AUTHORIZATIONS*

The GOJ requires separate environmental approvals for stacked products, which requires a dossier submission but does not require domestic field trials. According to reports from developers, CAA exempts GE stacked products from review if they use previously approved single events under specific conditions (e.g., the crossing of single events does not affect the host's metabolic pathway). For more details, see the FSC [website](#) (in Japanese). As of August 2024, 38 stacked products (6 soybean, 16 corn, 4 canola, and 12 cotton) are exempt from the food safety review. For more information see [CAA's website](#). For details on the approved stacks, please see the links contained in the reference section at the end of this report. For additional details on previous improvements in the handling of stacked product approvals for food, see [JA7138](#).

#### *d) FIELD TESTING*

The GOJ requires domestic field trials for GE products, even for those with no foreseeable opportunity for environmental release or commercial cultivation in Japan. In December 2014, MAFF excluded crops that do not have wild relatives in Japan (like corn) and with traits of sufficient familiarity (i.e., herbicide tolerance, insect resistance) from mandatory field trial requirements. In March 2019, MAFF added cotton with traits of sufficient familiarity to the list of products excluded from domestic field trials.

On September 19, 2024, MAFF officially announced the exemption of domestic field trial requirements for GE soybean with familiarity<sup>2</sup> ([JA2024-0051](#)). For more information on MAFF's policy on the requirement of domestic field trial and this change see MAFF's [website](#) (in Japanese) and [JA6050](#).

#### *e) INNOVATIVE TECHNOLOGIES*

The GOJ has three separate handling procedures for genome edited food and agricultural products that cover food, feed, and biodiversity safety. The consultation and notification process is shown in Figure 2. For more on genome editing handling procedures in Japan, see [JA2021-0106](#).

CAA determined that genome edited foods that do not contain foreign DNA are not subject to the Food Labeling Standard. However, CAA guidance recommends food manufacturers voluntarily label genome edited foods. Similarly, food manufacturers may also disclose that their products are not derived from genome edited ingredients, but CAA advises that manufacturers should be able to verify their product's authenticity of ingredients throughout supply chain. For more on CAA's labeling guidance, see [JA2019-0174](#).

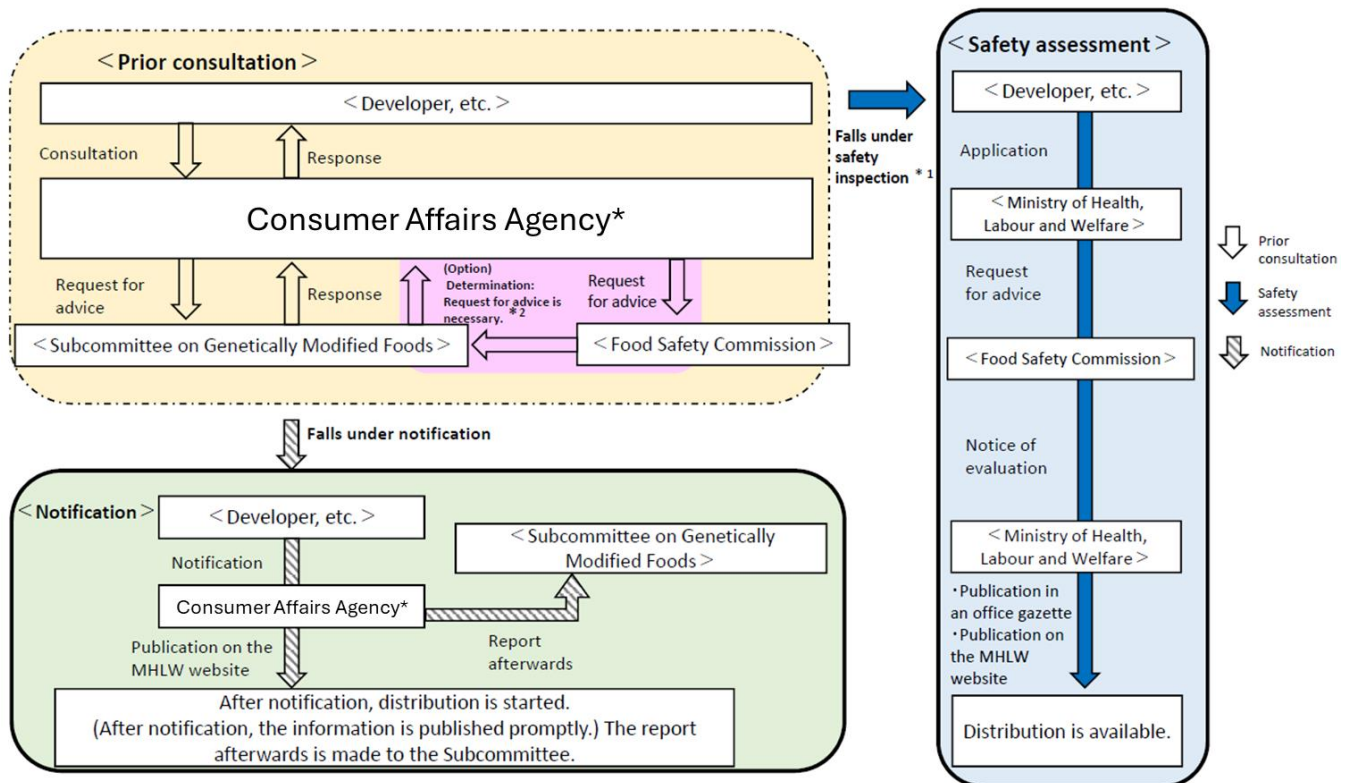
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<sup>2</sup> When a GE organism meets both conditions below, MAFF considers it a familiar trait:

- Those recognized as having a clear mechanism of action based on publications of peer-reviewed journals and/or the consensus among multiple experts at relevant government's review committees; and,
- The extent of potential biodiversity impacts caused by the characteristics conferred by the introduced nucleic acids, or their replicas, is recognized as being equal to or less than the biodiversity impacts of genetically modified plants that have already received approval of environmental release, provided that they share the same host.

Figure 2: Flow diagram of handling of food derived from genome editing technology

**Flow diagram of handling of foods derived from genome editing technology**



\*1 As foods derived from recombinant DNA technology, for foods, etc. which are determined to “fall under safety assessment,” Ministry of Health and Welfare Notification No. 233 of 2000 is applied mutatis mutandis.

\*2 For new foods and new technology, advice is requested for the Food Safety Commission as necessary and their handling, etc. are determined by the Subcommittee on Genetically Modified Foods

\*Modified from the original diagram which indicates the “Ministry of Health, Labour and Welfare” as the contact point for developers instead of “Consumer Affairs Agency” which overtook the food safety standard administration from MHLW on April 1, 2024. (Source: [CAA](#))

**f) COEXISTENCE**

According to a 2004 MAFF guideline, product developers must publicly disclose detailed information about proposed field trials online and host meetings with nearby residents before beginning any field trial. MAFF also requires the establishment of buffer zones to prevent related plant species in the surrounding area from cross-pollinating, see Table 3. These requirements, along with restrictive local regulations and perceived public resistance, have made planting of GE crops difficult. For additional information, please see the guidelines for cultivation of GE crops on the MAFF [website](#) (link in Japanese).

**Table 3: Required Buffer Zone for GE Crops in Open Fields**

<b>Plant</b>	<b>Minimum Isolation Distance</b>
Rice	30 meters
Soybeans	10 meters
Corn (applicable for food and feed safety approvals)	600 meters or 300 meters with the presence of a windbreak
Rapeseed (applicable for food and feed safety approvals)	600 meters or 400 meters if non-recombinant rapeseed is planted to flower at the same time of the field-tested rapeseed. A width of 1.5 meters surrounding field tested plants as a trap for pollens and pollinating insects

### Local Government Regulations

There are 16 local governments with regulations for the planting of GE products for research and/or commercial purposes. Local governments established many of these rules between 2004 and 2009 with limited changes. Current local government regulatory updates include Suita City, in Osaka providing an information update to its website. See [JA2023-0115](#) for the amendment in Hokkaido and [JA2019-0219](#) for more information on other local regulations.

### *g) LABELING AND TRACEABILITY*

In Japan, processed product manufacturers, importers, and retailers can make three types of GE claims on food labels: GE, non-segregated (without identity preservation), and non-GE. CAA requires labeling for both GE and non-segregated products. If a product is produced under an identity preservation (IP) system and contains GE ingredients, the food label must indicate it is GE. If a retailer distributes a non-IP product for which approved GE varieties exist (e.g., grains, oilseeds), the label must state “non-segregated,” regardless of the percentage of GE or non-GE content in the product.

CAA requires food labels to identify GE products and/or ingredients when the GE ingredient is among the top three ingredients and accounts for at least five percent of the product.

In March 2019, CAA revised its labeling policy for GE foods, effective on April 1, 2023. Under the regulation, products must be distributed under an IP system and contain no detectable GE content, effectively establishing zero tolerance for GE components. Although some consumer groups have complained that manufacturers are effectively unable to use “non-GE” labeling, no significant market impact has been observed. To highlight industry efforts to obtain non-GE ingredients at five percent or lower with IP handling, some manufacturers use description such as “identity preserved.” For more information, please see [CAA website](#) (in Japanese). FAS/Tokyo has submitted multiple reports on the review process (see, e.g., [JA7067](#), [JA7093](#), [JA7121](#), [JA8014](#), and [JA9055](#)).

### *h) MONITORING AND TESTING*

The GOJ monitors volunteer plants to assess the effect on biodiversity of environmental release of a GE crop. MAFF’s most recent [report](#) on environmental release includes a survey conducted in the vicinity of ports where canola and soybeans were unloaded from vessels. MAFF found no significant impact on biodiversity. MAFF looked for indicators that GE plants are affecting biodiversity, such as by surviving through multiple generations, or crossbreeding of GE soy with *glycine soja*, a Japanese domestic wild

plant and the closest living relative of soybean. MAFF has been the competent authority responsible for monitoring since 2006 and has never reported a significant impact on biodiversity from the environmental release of a GE crop.

MAFF, acting as a state trading enterprise, conducts tests for GE wheat and rice shipments from some export markets, including the United States. MAFF conducts these tests to ensure compliance with food's low-level presence policy. MAFF publishes tests results annually on its [website](#) (in Japanese).

*i) LOW-LEVEL PRESENCE (LLP) POLICY*

Japan has a zero-tolerance policy for unapproved GE events in food and the environment, and it is explicitly illegal to import GE-derived foods that CAA has not approved, regardless of the amount, form, or their known safety outside of Japan. For this reason, LLP of unapproved GE crops has the potential to disrupt agricultural trade with Japan. For more on Japan's LLP policy, see [JA6050](#).

As of October 2025, MHLW monitors imported foods for the following items:

- PRSV-YK, PRSV-SC, and PRSV-HN (papaya and its processed products if papaya can be isolated for analysis. Monitors 119 cases annually.)
- 63Bt, NNBt, and CpTI (rice and its processed product with rice as a main ingredient, such as rice flour, rice noodle, etc., when products are unheated or mildly heated. Monitors 299 cases annually.)
- RT73 *B. rapa* (canola and its processed products. Monitored 29 cases annually.)
- MON71100/MON71300, MON71700 and MON71800 (U.S. wheat. Monitors 59 cases annually. Also, regulatory authority, MHLW and/or port officials, may request inspection of specific shipments.)
- MON71200 (Canadian wheat. Monitors 59 cases annually. Also, regulatory authority, MHLW and/or port officials, may request inspection to specific shipments)
- F10 and J3 (potato and its processed products, of potato as a main ingredient, such as French fries, potato chips, etc. Monitors 299 cases annually)
- CZW3 and ZW20 (zucchini and its processed products, such as dried zucchini. 29 cases annually)
- AquAdvantage (salmon and its processed products, such as salmon flakes, from Canada, Panama, and the United States. Monitors 59 cases annually).

*j) ADDITIONAL REGULATORY REQUIREMENT*

Although GE products receive regulatory approval for commercial planting, GE products with herbicide resistance may need to have the relevant chemical registered in Japan.

*k) INTELLECTUAL PROPERTY RIGHTS (IPR)*

Japan provides strong IPR protection and enforcement. Japanese IPR covers genetic engineering of agricultural crops, including but not limited to, the gene, seeds, and name of varieties. Japan's Patent Office is responsible for IPR.

*l) CARTAGENA PROTOCOL RATIFICATION*

Japan ratified the Cartagena Protocol on Biosafety in November 2003 and implemented the "Law Concerning the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms." In December 2017, Japan ratified the

“Nagoya-Kuala Lumpur Supplemental Protocol on Liability and Redress to the Cartagena Protocol on Biodiversity.” This and other laws implementing the protocol may be found on the Japan Biosafety Clearing House (J-BCH) [website](#).

*m) INTERNATIONAL TREATIES AND FORUMS*

The Japan Bioindustry Association (JBA) has prepared [information](#) on Access and Benefit Sharing. Their target, however, appears to be the pharmaceutical and medical industries.

Japan is involved in the harmonization of regulatory oversight in biotechnology at the Organization for Economic Co-operation and Development (OECD), as well as the Asia-Pacific Economic Cooperation (APEC) High Level Policy Dialogue on Agricultural Biotechnology (HLPDAB).

*n) RELATED ISSUES*

None.

PART C: Marketing

*a) PUBLIC/PRIVATE OPINIONS*

Although GOJ polling shows that public concern about GE products has declined significantly over the past 10 years, Japanese food companies and retailers remain reluctant to handle GE varieties. This reluctance is due to mandatory labeling requirements for many GE food products and ongoing concerns about public perception. Without assurance that GE crops will be accepted and purchased by business stakeholders—such as wholesalers, distributors, retailers, and food manufacturers—farmers are unwilling to take the risk of growing GE crops. Concerns about public perception also affect the local breeding industry. For example, a major domestic seed company states on its corporate website, “The products we currently provide do not use any genetic engineering or genome-edited technologies.” Additionally, local government regulations create further obstacles for farmers who wish to cultivate GE crops.

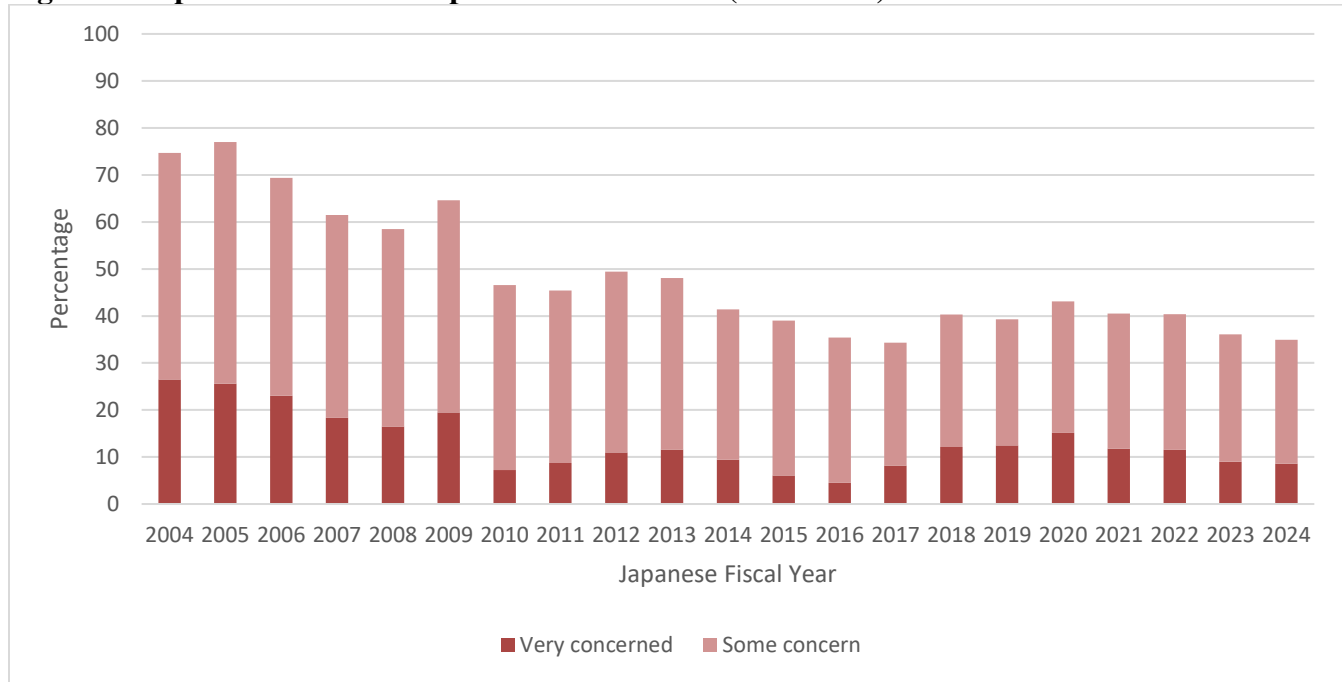
Recently, there has been a growing movement among Japanese farmers to support agricultural biotechnology. A group of like-minded local farmers has begun to publicly advocate for the urgent adoption of agricultural biotechnology in Japan. In April 2023, these farmers established the Japan Biotech Crop Network ([JBCN](#), available in Japanese and English). Their goal is to make biotechnology crops available to Japanese farmers. JBCN also claims that these crops can reduce the environmental impact of agriculture and promote sustainable farming. Member farmers of JBCN participated in the [Pan-Asia Farmers Exchange Program](#) to connect with biotech farmers worldwide ([tour report](#), available in Japanese).

*b) MARKET ACCEPTANCE/STUDIES*

Although some consumer groups continue to campaign against products derived from biotechnology, public perception of GE-derived products has shifted. Recent GOJ surveys show that consumers concerned about GE food are now in the minority. In 2006, a Food Safety Commission (FSC) [survey](#) (in Japanese) found that 75 percent of participants were “highly concerned” or “concerned” about GE foods. In the 2024 survey, only 35 percent of respondents reported being “highly concerned” or “concerned,” indicating a continued decline in public concern about GE products. GE foods last

appeared among the top seven food-safety concerns for survey respondents in 2009. For non-GE genome-edited food products, 10 percent of respondents said they are “highly concerned,” and 27 percent are “concerned.” For more information on the FSC’s annual survey, see the Appendix in this report.

**Figure 2: Japan Consumer Acceptance of GE Foods (2004-2024)**



Source: [FSC Food Safety Monitoring](#) (in Japanese)

## CHAPTER 2: ANIMAL BIOTECHNOLOGY

### PART D: Production and Trade

#### *a) RESEARCH AND PRODUCT DEVELOPMENT*

In Japan, most molecular biology researchers focus on medical and pharmaceutical applications. As with plant research, universities and public research institutions conduct much of the limited animal biotechnology research pertaining to food and agriculture.

In 2019, a largely academic research team developing genome edited aquaculture products founded a startup company called [Regional Fish](#), with private sector financial support from the GOJ. In December 2023, the company completed the first non-GE genome edited aquaculture product, fast-growing flounder. Similar to plant biotechnology, there are a number of research publications of molecular biology which are potentially applicable to animal agriculture, however, the transition to actual production appears to require more time.

Japan's National Agriculture and Food Research Organization ([NARO](#)) continues to conduct research on GE silkworms for value-added silk production. However, there have been no new event approvals of GE silkworm for commercial production since July 2023 ([MAFF](#), in Japanese).

#### *b) COMMERCIAL PRODUCTION*

Commercial production of GE animals in Japan is limited to GE silkworms, which are used for production of a small amount of value-added non-food products. The Gunma Prefecture Sericulture Technical Center distributes green fluorescent silk produced from GE silkworms developed by NIAS ([link](#), in Japanese). Additionally, [Immuno-Biological Laboratories, Co., Ltd.](#) manufactures silk protein from GE silkworms for use in medical diagnostic products.

As of October 2025, one company—Regional Fish—has notified the GOJ of four types of animal food products developed from genome editing technology: sea bream with increased edible skeletal muscle, fast-growing puffer fish, fast-growing flounder, and Nile tilapia with increased edible skeletal muscle. More details are available on the [CAA website](#) (in Japanese).

#### *c) EXPORTS*

None.

#### *d) IMPORTS*

None.

#### *e) TRADE BARRIERS*

None.

### PART E: Policy

#### *a) REGULATORY FRAMEWORK*

GOJ regulators apply the same regulation for GE plants to the commercialization of GE animals and insects. For production or environmental release of GE animals, MAFF will apply its “Law Concerning

the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms.” The Food Sanitation Act, under CAA’s supervision, covers the food safety aspect of GE animals.

In general, the technical terms used for animals are the same as for plants.

#### *b) APPROVALS/AUTHORIZATIONS*

There have been no new approvals of GE animals since July 2023. See previous annual report here [JA2023-0115](#).

#### *c) INNOVATIVE BIOTECHNOLOGIES*

The regulation of innovative biotechnologies in Japan involves multiple agencies and continues to evolve as new technologies emerge and the use of genome editing technology becomes more widely used. The regulatory policies and guidelines developed by MHLW—with responsibility for food safety standards transferred to the CAA as of April 1, 2024—and by MAFF for biodiversity, as described in Chapter 1, generally apply to animals derived from genome editing technology, with some exceptions.

Recent developments highlight the government’s ongoing efforts to address the unique challenges posed by genome-edited animals. On September 2, 2025, the CAA Subcommittee on Genetically Modified Foods convened an introductory hearing on genome edited swine, featuring presentations from Japanese experts. These experts provided subcommittee members with an overview of swine breeding and production, genome editing techniques, and infectious diseases affecting swine, as well as academic literature about the FDA-approved PRRS virus resistant swine. For more detail, please visit [CAA’s site \(in Japanese\)](#).

In addition to regulatory considerations for livestock, Japanese authorities have also adapted their approach to genome-edited aquatic species. The MHLW decided that fish raised for aquaculture differ significantly from crops and livestock, due to factors such as a shorter breeding history, greater genetic variation among species, and the presence of genetic mosaicism with CRISPR/Cas9 technology. As a result, MHLW revised its consultation and notification process for genome edited fish products. The MHLW finalized a report titled “Note on the Handling of Fishes Obtained via Genome Editing Technology.” For more detail, please see [JA2021-0132](#).

#### *d) LABELING AND TRACEABILITY*

The labeling requirement for GE animals is the same as for plants. There is no mandatory labeling requirement for non-GE, genome edited products.

#### *e) ADDITIONAL REGULATORY REQUIREMENTS*

#### *f) INTELLECTUAL PROPERTY RIGHTS (IPR)*

Same as for plants.

#### *g) INTERNATIONAL TREATIES/FORA*

Japan ratified the Cartagena Protocol on Biosafety in 2003.

*h) RELATED ISSUES*

In September 2017, the GOJ implemented monitoring for GE salmon and processed salmon products, such as salmon flakes. See i) **LOW-LEVEL PRESENCE (LLP) POLICY** for details.

For additional details, please see [JA7112](#).

**PART F: Marketing**

*a) PUBLIC/PRIVATE OPINIONS*

Currently, there is no commercial distribution of GE animals in Japan except for a few products, such as the silkworm used to make protein for medical diagnostic agents. Public interest for consuming meat from GE animals remains uncertain. However, based on the history of GE crops for food and feed, as well as recent incidents involving misinformation on genome edited fish, it is reasonable to anticipate some degree of negative public reaction to GE and non-GE genome edited animals intended for food. In May 2025, Kura Sushi, the second largest revolving sushi franchise in Japan, released a [comment on X](#) clarifying that the company “does not use genome-edited fish in any capacity and has no plans to do so in the future.” This announcement aimed to address and correct misinformation circulating on social media suggesting that the company was using genome-edited fish.

*b) MARKET ACCEPTANCE/STUDIES*

There are no market acceptance studies specific to animal biotechnology.

## CHAPTER 3: MICROBIAL BIOTECHNOLOGY

### PART G: Production and Trade

#### *a) COMMERCIAL PRODUCTION*

Japan has a rich tradition of fermented foods, including soy sauce, natto (fermented soybeans), miso (soybean paste), and sake (rice wine). Modern Japanese diets also feature fermented products such as yogurt, cheese, and bread. Despite the widespread use of fermentation, public information on the scale of production for products derived from microbial biotechnology remains limited. The Japanese food industry is sensitive to consumer perceptions regarding biotechnology, and current labeling regulations exempt these products from mandatory GE labeling. As a result, manufacturers have little incentive to disclose the use of microbial biotechnology.

In 2021, industry valued Japan's enzyme and yeast markets at approximately 49 billion yen (340 million USD). However, there is no specific data available on the market value of enzymes and yeast derived from biotechnology.

Manufacturers of products that use microbial biotechnology (e.g., GE enzymes) are a mix of international and domestic companies. The GOJ has approved several companies to use microbial biotechnology, including Novozyme, Danisco U.S., Ezaki Glico, and other domestic firms. Lists of approved products and applicants are available on the [CAA's website](#).

Most Japanese companies applying for approval focus on self-cloning, naturally occurring, and highly purified products, such as L-glutamine. For a comprehensive list of approved products and applicants, see [CAA's website](#) (link in Japanese).

Product developers have introduced a limited number of alternative meat products to the Japanese market, most of which are soy-based. So far, meat analogue products from bacteria or single cell-based proteins are not in commercial distribution in Japan, however there are efforts to increase understanding around these products and meat alternative products using food technology. For example, in October 2020, MAFF held its first "[Council for Public-Private Partnership in Food Technology](#)" (link in Japanese) for the promotion of cross-sectorial collaboration, but the conference was not open to the general public. In addition, in 2020, the Center for Rule-Making Strategies at Tama University established the [Japan Association for Cellular Agriculture](#) to promote activities and communication among stakeholders in industry, regulatory agencies, policy makers, and academia about the commercial application of cellular agriculture in the medical, pharmaceutical, food, and materials sectors. Also, in July 2023, the [Japan Bioindustry Association](#) launched a working group for cultured meat and held its first workshop. In response to these initiatives, the CAA has begun discussions on establishing a regulatory framework for cell culture food products. See PART H: Policy, a) REGULATORY FRAMEWORK.

#### *b) EXPORTS*

In CY2024, Japan exported 5,463 MT of enzymes (HS code 3507), valued at \$289 million, which may include products derived from microbial biotechnology.

**Table 5: Japan Enzyme Exports (HS3507, CU2024)**

Country	Volume (Metric Ton)	Value (Million USD)
Denmark	1,357	15
United States	1,253	95
China	617	43
France	378	18
Germany	277	17
Others	1,581	101
<b>Total</b>	<b>5,463</b>	<b>289</b>

Source: [Trade Data Monitor Inc.](#)

*c) IMPORTS*

In CY2024, Japan imported 5,160 MT of enzymes (HS code 3507), valued at \$104 million, which may contain products derived from microbial biotechnology.

**Table 6: Japan Enzyme Imports (HS3507, CY2024)**

Country	Volume (Metric Ton)	Value (Million USD)
China	2,242	25
Denmark	1,042	16
United States	412	13
Singapore	384	1
Finland	222	1
Others	858	48
<b>Total</b>	<b>5,160</b>	<b>104</b>

Source: [Trade Data Monitor Inc.](#)

*d) TRADE BARRIERS*

None.

**PART H: Policy**

*a) REGULATORY FRAMEWORK*

Japan's Food Sanitation Act defines food additives as (i) substances used in or on food in the process of manufacturing food, or (ii) substances used for the purpose of processing or preserving food. The GOJ considers most microbial biotechnology products as food additives. More information can be found on [CAA's website](#).

When manufacturers use genetically engineered (GE) microorganisms and their products exclusively within a contained environment for food production, they are required to obtain food safety approval from the CAA. The approval process mirrors the GE food safety review procedures for plant and animal products. After the CAA completes its preliminary review, it forwards the application to the FSC for a comprehensive safety risk assessment. For additional information on this process, see Chapter I, Plant

Biotechnology, Section B: Policy, a) Regulatory Framework.

Japan's unique approach to food additive regulation can present challenges for industry stakeholders. Under the [Food Sanitation Act](#), food additives are defined as “substances used in or on food in the process of manufacturing food,” or “substances used for the purpose of processing or preserving food.” Hence, food additives in Japan include not only the substances remaining in the final product, but also the substances which are not a part of the final products, such as filtration materials and microorganism control agents. This broad definition distinguishes Japan's regulatory environment from that of many other countries. More information can be found on [CAA's website](#).

The CAA exempts food additives from the safety review when they are highly purified and do not contain foreign GE material. The CAA and FSC can exempt microorganisms from the safety review if they agree that they are self-cloning or naturally occurring. The FSC has published their Safety Assessment Standards for [microorganisms](#), [food additives](#), and [highly purified end-products](#). More information can be found on [CAA's website](#) (in Japanese).

In February 2025, the CAA convened a meeting of the “Food Sanitation Standards Council Newly Developed Food Investigation Committee” to discuss the establishment of food safety standards for cell culture foods ([JA2025-0016](#)), followed by two more meetings in July and September (JA2025-0070). CAA plans to provide guidance for industry, however, the specific timeline is not announced.

#### *b) APPROVALS/AUTHORIZATIONS*

As of October 2025, Japan has approved 89 additive ingredients derived from GE technologies.

Approved products can be found on [CAA's website](#) and are listed below:

- Acid phosphatase: 1 (product)
- Alpha amylase: 19
- Alpha-glucosidase: 1
- Alpha-glucosyltransferase: 4
- Aminopeptidase: 1
- Asparaginase: 1
- Beta-amylase: 1
- Beta-galactosidase: 1
- Carboxypeptidase: 1
- Cellulase: 2
- Cyclodextrin glucanotransferase (CGTase): 2
- Exomalt tetrahydrolase: 2
- Glucoamylase: 5
- Glucose oxidase: 3
- Hemicellulase: 2
- Lipase: 7
- Pectinase: 1
- Phospholipase: 8
- Psicose epimerase: 1
- Polyphenol oxidase: 1
- Protease: 5
- Pullulanase: 5

- Rennet: 5
- Riboflavin: 2
- Terpene hydrocarbons: 1
- Transglutaminase (TGase): 2
- Xylanase:5

As of October 2025, CAA, and formerly MHLW, approved 93 products as highly purified substances, products of natural occurrence, or self-cloning. [CAA's](#) website (link in Japanese) has the complete list of products.

*c) LABELING and TRACEABILITY*

CAA requires food labels to identify GE products and/or ingredients when the GE ingredient is among the top three ingredients and accounts for at least five percent of the product.

CAA does not require food labels to contain GE labeling for food additives. CAA does have other food additive labeling requirements, for more see [JA2019-0216](#).

*d) MONITORING AND TESTING*

No specific testing for products from microbial biotechnology.

*e) ADDITIONAL REGULATORY REQUIREMENTS*

None.

*f) INTELLECTUAL PROPERTY RIGHTS (IPR)*

Same as for plants and animals.

*g) RELATED ISSUES*

None.

**PART I: Marketing**

*a) PUBLIC/PRIVATE OPINIONS*

Public awareness of microbial biotechnology use by the food industry is limited.

*b) MARKET ACCEPTANCE/STUDIES*

There are no significant market acceptance studies available.

## Reference

### Risk assessment standards of genetically engineered food

- Food Safety Commission  
[http://www.fsc.go.jp/english/standardsforriskassessment/gm\\_kijun\\_english.pdf](http://www.fsc.go.jp/english/standardsforriskassessment/gm_kijun_english.pdf)

### Information related to GE food regulations

- Consumer Affairs Agency  
[https://www.caa.go.jp/policies/policy/standards\\_evaluation/bio/genetically\\_modified\\_food](https://www.caa.go.jp/policies/policy/standards_evaluation/bio/genetically_modified_food) (in Japanese)

### Information on GE Food Labeling

- Consumer Affairs Agency (the agency responsible for labeling regulations, including GE)  
<http://www.caa.go.jp/en/> (English)
- Food Labeling Law, Government Ordinance, Ministerial Ordinance and Notifications  
In Japanese: [https://www.caa.go.jp/policies/policy/food\\_labeling/food\\_labeling\\_act/](https://www.caa.go.jp/policies/policy/food_labeling/food_labeling_act/)  
In English: [https://www.caa.go.jp/en/policy/food\\_labeling](https://www.caa.go.jp/en/policy/food_labeling)
- Japan Biosafety Clearing House: Cartagena protocol domestic law, related regulations, and the list of approved LMOs (English)  
[http://www.biodic.go.jp/bch/english/e\\_index.html](http://www.biodic.go.jp/bch/english/e_index.html)

### Approved events for commercial use

- Approved events for food use (in English):  
[https://www.caa.go.jp/policies/policy/standards\\_evaluation/bio/genetically\\_modified\\_food/assets/genetically\\_modified\\_food\\_251202\\_01.xlsx](https://www.caa.go.jp/policies/policy/standards_evaluation/bio/genetically_modified_food/assets/genetically_modified_food_251202_01.xlsx)
- Approved stacked events for food use (in Japanese):  
[https://www.caa.go.jp/policies/policy/standards\\_evaluation/bio/genetically\\_modified\\_food/assets/genetically\\_modified\\_food\\_251202\\_01.xlsx](https://www.caa.go.jp/policies/policy/standards_evaluation/bio/genetically_modified_food/assets/genetically_modified_food_251202_01.xlsx)
- Approved events for feed use (in Japanese):  
[https://www.maff.go.jp/j/syouan/tikusui/siryo/gmo\\_feed.html](https://www.maff.go.jp/j/syouan/tikusui/siryo/gmo_feed.html)
- Approved events for environmental release (in Japanese):  
<https://www.maff.go.jp/j/syouan/nouan/carta/torikumi/attach/pdf/index-310.pdf>

### Genome editing technology

- CAA – Foods derived from genome editing technology (English can be found in the middle section of the site)  
[https://www.caa.go.jp/policies/policy/standards\\_evaluation/bio/genome\\_edited\\_food](https://www.caa.go.jp/policies/policy/standards_evaluation/bio/genome_edited_food)
- MAFF – Handling of living organisms derived from new breeding technique under Cartagena Law (in Japanese)

<http://www.maff.go.jp/j/syouan/nouan/carta/tetuduki/nbt.html>

- MAFF – Safety of Feeds and Pet Foods (in English)  
[https://www.maff.go.jp/e/policies/ap\\_health/petfood/index.html](https://www.maff.go.jp/e/policies/ap_health/petfood/index.html)
- CAA – Information for the labeling of genome edited foods (in Japanese)  
[https://www.caa.go.jp/policies/policy/food\\_labeling/quality/genome/](https://www.caa.go.jp/policies/policy/food_labeling/quality/genome/)

## Appendix

**Table: Degree of Concern for Each Hazard Perceived in Terms of Food Safety (Top 7 responses, by percentage, answering "very anxious" and "somewhat anxious") (Provisional Translation)**

	#1	#2	#3	#4	#5	#6	#7
2004	Contaminants (cadmium, methylmercury, arsenic, etc.) (91.7)	Pesticide Residue (89.7)	Antibiotics for livestock (83.5)	Food poisoning from harmful microorganisms, viruses (80.9)	Food Additives (76.4)	Genetically Modified (74.7)	BSE (74.5)
2009	Food poisoning from harmful microorganisms, viruses (79.6)	Contaminants (cadmium, methylmercury, arsenic, etc.) (78.1)	Pesticide Residue (73.1)	Antibiotics for livestock (68.2)	Elution of chemicals from utensils, containers and packaging (67.5)	Genetically Modified (64.6)	Food Additives (62.5)
2014	Food poisoning from harmful microorganisms, viruses (78.5)	Radioactive material (64.1)	Health food claims (64.1)	Pesticide Residue (58.8)	Antibiotics for livestock (55.4)	Contaminants (cadmium, methylmercury, arsenic, etc.) (53.6)	Food Additives (50.4)
2016	Food poisoning from harmful microorganisms, viruses (82.8)	Health food claims (61.7)	Mycotoxin (61.5)	Drug-resistant bacteria by antibiotics for livestock (59.1)	Radioactive material (56.5)	Foods containing allergenic substances (55.7)	Contaminants (cadmium, methylmercury, arsenic, etc.) (51.9)
2017	Food poisoning from harmful microorganisms, viruses (83.4)	Health food claims (63.6)	Mycotoxin (62.0)	Drug-resistant bacteria by antibiotics for livestock (59.1)	Foods containing allergenic substances (57.5)	Radioactive material (51.5)	Contaminants (cadmium, methylmercury, arsenic, etc.) (49.9)
2018	Food poisoning from harmful microorganisms, viruses (86.7)	Drug-resistant bacteria by antibiotics for livestock (66.9)	Health food claims (64.9)	Mycotoxin (64.6)	Foods containing allergenic substances (61.8)	Contaminants (cadmium, methylmercury, arsenic, etc.) (60.9)	Radioactive material (54.0)
2019	Food poisoning from harmful microorganisms, viruses (85.1)	Drug-resistant bacteria by antibiotics for livestock (66.1)	Health food claims (62.6)	Mycotoxin (61.9)	Foods containing allergens (59.9)	Contaminants (cadmium, methylmercury, arsenic, etc.) (53.9)	Elution of chemicals from utensils, containers and packaging (52.8)
2020	Food poisoning from harmful microorganisms, viruses (83.2)	Mycotoxin (72.5)	Health food claims (60.5)	Contaminants (cadmium, methylmercury, arsenic, etc.) (59.4)	Drug-resistant bacteria by antibiotics for livestock (57.4)	Pesticide Residue (56.3)	Elution of chemicals from utensils, containers and packaging (55.5)
2021	Food poisoning from harmful microorganisms, viruses (80.5)	Mycotoxin (64.1)	Drug-resistant bacteria by antibiotics for livestock (63.9)	Health food claims (62.9)	Contaminants (cadmium, methylmercury, arsenic, etc.) (61.4)	Foods containing allergens (60.5)	Radioactive material (54.9)
2022	Food poisoning from harmful microorganisms, viruses (79.5)	Health food claims (66.8)	Mycotoxin (65.6)	Contaminants (cadmium, methylmercury, arsenic, etc.) (62.1)	Drug-resistant bacteria by antibiotics for livestock (59.4)	Foods containing allergens (58.2)	Radioactive material (51.3)

2023	Food poisoning from harmful microorganisms, viruses (82.5)	Mycotoxin (65.3)	Health food claims (63.6)	Drug-resistant bacteria by antibiotics for livestock (60.3)	Contaminants (cadmium, methylmercury, arsenic, etc.) (59.6)	Foods containing allergens (57.2)	Radioactive material (49.0)
2024	Food poisoning from harmful microorganisms, viruses (81.7)	Health food claims (67.2)	Mycotoxin (66.9)	Contaminants (cadmium, methylmercury, arsenic, etc.) (62.3)	Drug-resistant bacteria by antibiotics for livestock (55.6)	Foods containing allergens (51.8)	Leach chemicals from food containers, packages and utensils (51.6)

Source: Food Safety Commission of Japan, [https://www.fsc.go.jp/monitor/monitor\\_report.html](https://www.fsc.go.jp/monitor/monitor_report.html)

**Attachments:**

No Attachments