

USDA Foreign Agricultural Service

GAIN Report

Global Agricultural Information Network

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Japan Initiates Discussion of Food Labeling for Genome Edited Foods

Report Categories:

Biotechnology and Other New Production Technologies

Agricultural Situation

Grain and Feed

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Report Highlights:

On May 23, 2019, the Consumer Affairs Agency (CAA) of the Government of Japan (GOJ) held its first public meeting to study how products derived from genome editing technology could be labeled. The CAA plans to hold multiple meetings, but has stated that any labeling requirements will align with Japan's regulations and standards for genome edited products.

General Information:

On May 23, 2019, the Consumer Affairs Agency (CAA) of the Government of Japan (GOJ) held its 54th Food Labeling Committee meeting. The group discussed how products derived from genome editing technology could be labeled.

The committee is comprised of 16 experts on consumer issues:

- Hiroyuki Ukeda, Director, Kochi University (Chair)
- Kazukiyo Higuchi, Visiting Professor, Hosei University
- Reiko Atachi, Director, Division of Biochemistry, National Institute of Health Science
- Shigenobu Ikedo, Professor Emeritus, Miyagi University
- Tomoaki Imamura, Professor, Department of Public Health, Health Management and Policy, Nara Medical University;
- Sachiyo Komatsu, Member for Food Division, Japan Chain Stores Association
- Saeko Sawaki, Representative, Food Research Group, Japan Association of Consumer Affairs Specialists;
- Yoshiyuki Shimoura, Managing Director, Japan Dietetic Association;
- Souichiro Suga, Attorney;
- Saori Sorin, Managing Director, National Consumer Affairs Center of Japan;
- Yoriko Tobe, Director, Nippon Association of Consumer Specialists;
- Satoko Natsume, Executive Secretary, National Federation of Regional Women's Organization;
- Kumiko Matsuzaki, Professor, Faculty of Letters, Atomi University'
- Waki Matsunaga, Science Journalist;
- Chikara Miyazaki, Vice Chair, Japanese Association of Public Health Center Directors; and
- Kensuke Watanabe, Advisor, Japan Food Industry Association

Three speakers addressed the first session:

- Hiroaki Kodama, Professor, Faculty of Horticulture, Chiba University;
- Takashi Yamakawa, Professor, Graduate School of Agriculture and Life Science, the University of Tokyo; and,
- Yasunori Yoshida, Director, Food Safety Standard and Evaluation Division, Ministry of Health, Labor and Welfare (MHLW).

The session began with Dr. Kodama's presentation on genome editing technology. Particular emphasis was placed on CRISPR-Cas9. Dr. Kodama commented on:

- the technical characteristics of genome editing technologies;
- differences and similarities of genome editing technology (for gene knockout), traditional breeding, and genetic engineering;
- technical difficulties in identifying products derived from genome editing technologies, even when the full genome sequence is performed, because significant DNA sequence diversity exists;
- the frequency of DNA double-strand breaks - occurring naturally and relatively frequently in cell divisions; and,

- that off-target mutations are selected out via the back-cross process (to screen out undesirable traits) in crop breeding.

After Dr. Kodama's presentation, Director Yoshida explained MHLW's policy for the handling of genome edited foods ([JA9050](#)).

During the meeting, committee members expressed an interest in the following areas:

- Why can we not detect non-GE genome edited products?;
- Is there a possibility to develop detection technologies in the future?;
- If a social verification system (e.g., identity preservation) was introduced, could labeling for genome edit product be introduced even without a detection method?; and,
- Is there a possibility that someone may use genome editing technology to intentionally create crops with toxic substances?

Some committee members commented that:

- Products of genome edit technology could be safer than conventional breeding because genetic mutation induced by genome editing technology is targeted to a specific region of the genome, instead of being induced randomly. In addition, if non-GE genome edited products are technically the same as conventional products derived from natural breeding, it seems unreasonable to have to label genome edited products.
- As genome editing technology is more precise than conventional breeding, if we require specific labeling for products of genome editing technology it could be argued the policy is unfair.

It is expected that CAA will hold another hearing in June 2019.

Reference Materials:

54th Food Labeling Committee, the Consumer Affairs Agency, the Government of Japan (in Japanese)
<https://www.cao.go.jp/consumer/kabusoshiki/syokuhinhyouji/bukai/054/shiryuu/index.html>