International Consumer's Symposium in Tokushima 2026
October 17 (Saturday)

Food loss reduction: thoughts based on expiry date labeling

— Discoveries from our South Korea study tour —

Fuga Nanase (七瀬 風我)

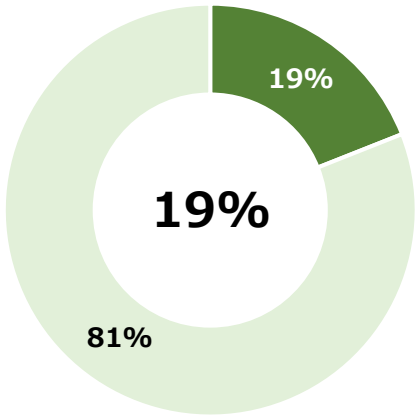
**Bioresource Sciences Program,
Graduate School of Sciences and Technology for Innovation,
Tokushima University**

Global problem: food loss and food waste

Global amount of food waste

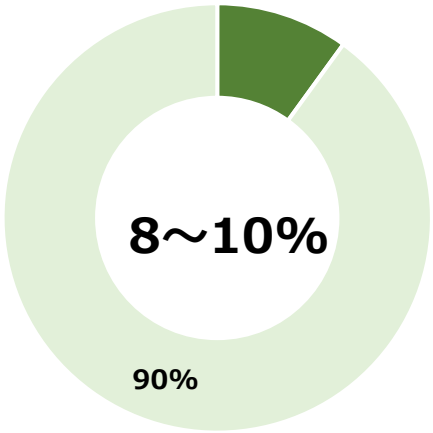
= approx. 1.05 billion tons wasted

Amount of edible food wasted



approx. 19% of food supplied to consumers

Environmental burden (greenhouse gas emissions)



approx. 8–10% of global greenhouse gas emissions

Sources: UNEP Food Waste Index Report 2024; UN SDG 12 (2026); UNEP International Day of Zero Waste 2026

The university's actions toward food loss reduction

Food quality deterioration (spoilage)



Using Tokushima Univ. analysis facilities

Identification and analysis of spoilage microorganisms



Quality management, set appropriate dates



Food loss reduction



Tokushima University

Food loss reduction based on <u>food preservation methods</u>

+

South Korea study tour

Food loss reduction based on <u>consumers' understanding and behavior</u>

What we learned from visiting South Korea

Through exchange at Cheju Halla University



- “Expiry date labeling” on food products became a topic of discussion
- We learned that expiry date labeling in Japan and South Korea differ

How does expiry date labeling differ to that in Japan?

Expiry date labeling in Japan and South Korea

Japan

1 of 2 date types shown depending on nature of product

Use-by date = **Focus on safety**

"Don't eat it after this date"

Best-before date = **Focus on quality**

"Eat by this date to assure quality"

South Korea

Transitioned labeling system in 2023

Until 2022

Sell-by date

"Sell by this date"

→

Current

Use-by date

"Safe to eat until this date"

* Applies to refrigerated milk products from 2031

Japan: 1 of 2 date types shown based on either quality or safety
South Korea: transitioned from sell-by date to use-by date

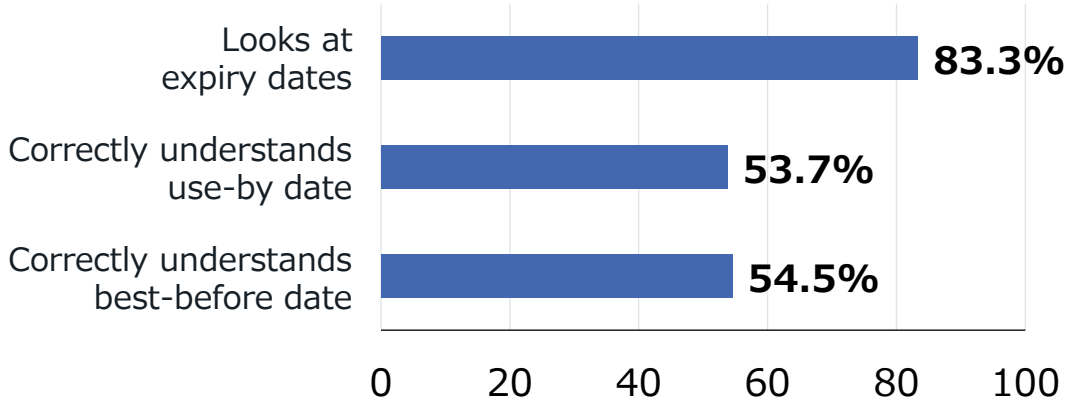
Sources:「食品の期限表示に関する情報」, Consumer Affairs Agency (Japan);「消費期限表示制」Q&A, Ministry of Food and Drug Safety (South Korea) (2023)

Expiry date labeling and consumer understanding

The differing expiry date labeling systems became a topic of discussion, and we became interested in the systems' recognition and acceptance

Are expiry date labels/systems properly understood?

A Japan: Consumer Affairs Agency investigation



"Looks at dates" 83.3%
→ "correctly understands" approx. 54%

Looks at expiry dates: n=6,050 ／ Correctly understands: n=3,025

B South Korea: after introducing use-by date labeling

Agrees with intent of system
81.9%

→ **However**

Clearly perceived
42.4%

Might get confused if only use-by date shown
76.4%

Agreement with system high, but clarity remains a challenge

South Korea: 19–59-y.o. people nationwide, n=1,000

From "knowing and seeing" to "correctly understanding"

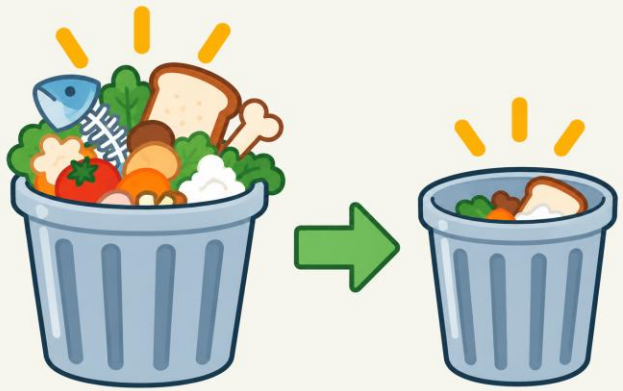
Sources: Consumer Affairs Agency (2026); TrendMonitor (2023)

Toward achieving Sustainable Development Goals (SDGs)

Consumers

- **Understand**
  what the date labels mean
- **Adhere to**
  preservation methods and temperatures
- **Choose**
  according to one's own meal plans

SDG target 12.3:
reduce food loss



Tokushima Univ.

- **Research**
  Analysis of spoilage microorganisms
- **Dissemination**
  of knowledge to society in an accessible manner
- **Collaboration**
  with companies and external organizations

Consumer understanding and action × Research and social collaboration

In closing

Reducing food loss is an important globally-common challenge toward achieving SDGs

Each country has its own systems
But the goal is the same

Each bit of awareness in daily life is a step toward that common goal

