

Local Innovation Through Food

Ehime Prefectural Imabari West High School

Abstract

We are conducting research to enhance the appeal of our local area and solve regional challenges. By working with a local farmers' market and its café, we develop products using locally grown vegetables, focusing on two key themes. One is "Revitalizing the community by creating and marketing a new food item unique to our region." The other is "Reducing food loss and waste through food education and sustainable eating."

Regional Revitalization Starting from Food

Hypothesis

Locally grown products

⇒ More tourists & Economic benefits!

Eye-catching sweets

⇒ Buzz & SNS appeal

⇒ More customers at the local farmers' market!

⇒ More visitors from outside the city!

Method

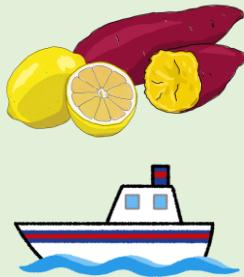
○ Product Development and Sales

Imabari sweet potato & Setouchi lemon
Ship shaped design representing shipbuilding
& Seto Inland Sea

Shio-kaze Sweet Potato



Fig.1 Image of the product we created



○ Activities

- Flyers & posters
- Instagram promotion
- Customer surveys

Results

1. Instagram reach (Oct. 16—Nov. 10)

⇒ **367,382 views**

2. Units sold (Oct. 18—Nov. 10)

⇒ **120 pieces**

Discussion

From the number of Instagram viewers

- Sent information to more people

From the units sold

- Sales increased significantly on direct promotion days (Oct. 18, Nov. 3)

From customer surveys

- Positive feedback:
⇒ Many customers found the product attractive.
- Most buyers were local residents
⇒ Limited immediate impact on regional revitalization

Delicious Food Loss and Waste Reduction

Background

Food Loss

- Farming
- Manufacturing
- Processing
- Wholesale
- Distribution

Food Waste

- Retail
- Restaurants
- Households

We want to work to reduce food loss and waste!

We want to learn more: How can we reduce food loss and waste?

Hidden Treasure in "Inedible" Parts

Overview : Percentage of Inedible parts

Fruit : 20-40%

(e.g., banana peels, watermelon rind/seeds)

Vegetables : 10-30%

(e.g., radish peels, carrot tops)

Pumpkin : about 10%

(e.g., pulp, seeds, ends)



Hypothesis

Preconception : "Pumpkin seeds can't be eaten!"



Inedible waste remains high

Method

○ Product

Cozy Pumpkin Cookies



Fig.2 Image of the product

○ Activities

- Cookie sales
- Customer surveys
- Promoting awareness :

"Pumpkin seeds are edible, nutritious and delicious!"



Fig.3 Steps to prepare pumpkin seeds for eating

Results

1. **100%** said "Seeds are delicious!"
2. Many wanted to try roasting and eating seeds themselves
3. Seeds from about 6.2 medium-sized pumpkins consumed in one day

Discussion

- Simpler products using pumpkin seeds
- Simplified steps to make pumpkin seeds edible

➔ **Food Loss and waste reduction**

Food Loss and Waste Reduction with Imabari specialities

Overview : Japan

5.22 million tons annually (FY 2020)

2-2.5 million tons of vegetables discarded yearly largely due to being non-standard

Overview : Ehime

About 51,000 tons (FY 2020)

Hypothesis

Develop products using Imabari-grown vegetables
Use oversupplied vegetables



Promotes local production & consumption
Reduces food loss and waste

Method

○ Product Development and Sales

Seasonal Summer Vegetable *Furikake*



Fig.4 Image of the product we created

Results

○ Demonstration Day Sales

Assorted Mix-flavor *Furikake*

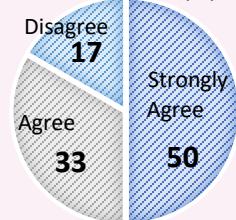
(Carrot & Pumpkin & Okra) **61 bottles/96**

Amanaga chili pepper flavor *Furikake*

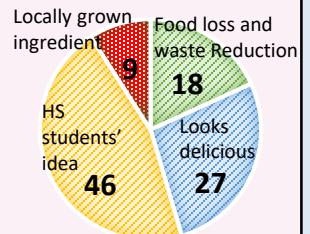
50 bottles/96

○ Questionnaire (n=6)

Does *Furikake* contribute to reducing Food loss and waste (%)



Why did you buy *Furikake*? (%)



Discussion

Easy and delicious *Furikake*

➔ **Food Loss and waste reduction**

➔ **Local production and Local consumption**

Conclusion and Future Prospect

Since most buyers were local residents, it was difficult to achieve regional revitalization through this activity alone. However, long-term product sales and increased media exposure could potentially lead to local revitalization. Working together with the local farmers' market and the community, we need to not only raise awareness, but also continue appeals for practical food loss and waste reduction.

References

- 農林水産省 食品ロス削減関係参考資料 (令和5年3月24日版)
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