4. Material of Food Processing Seminar (Dairy Products)

Food processing seminar (Dairy products)

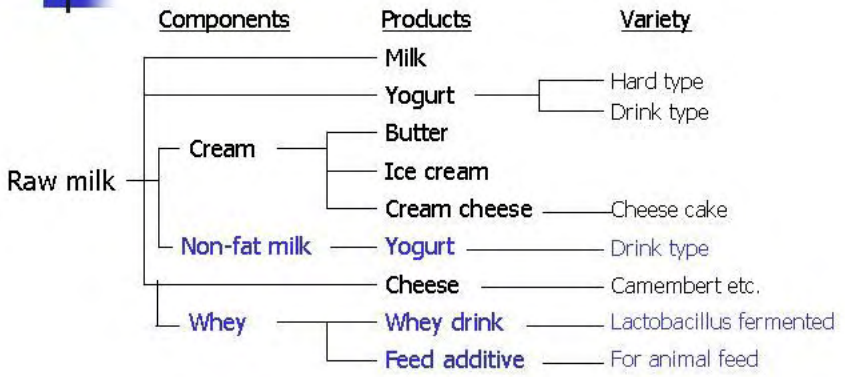
JICA study team
K. Ueno
March 11, 2010

Added value of dairy products in Japan

Product	Price (US$)	Unit price (US$/1kg) A	Used raw milk (kg/1kg)B	Added value A/Bx0.9
Milk	1.9-2.6/L	1.7-2.6	1kg	1.9-2.9
Yogurt (Hard-type)	2.8-3.3/500g	5.6-6.7	1.8kg(SNF:15%)	3.4-4.2
Yogurt (Drink-type)	2.8-3.9/L	2.8-3.9	1.8kg(SNF:15%)	2.2-3.1
Cream(40%fat)	4.2/200g	21.1	10kg	2.4
Butter (85%fat)	3.9/200g	19.4	21kg	1.0
Cheddar cheese	1.9-2.8/100g	18.9-27.8	10kg	2.1-3.1
Cream cheese(40%fat)	4.0/200g	20.0	10kg	2.3
Camembert cheese	3.9/200g	19.4	9kg	2.4
Emmental cheese	8.9/100g	88.9	10kg	10
Rock fall cheese	8.9/100g	88.9	10kg	10

SNF: Solid Non Fat, raw milk price: 0.9US$/kg, 1US$=90Yen

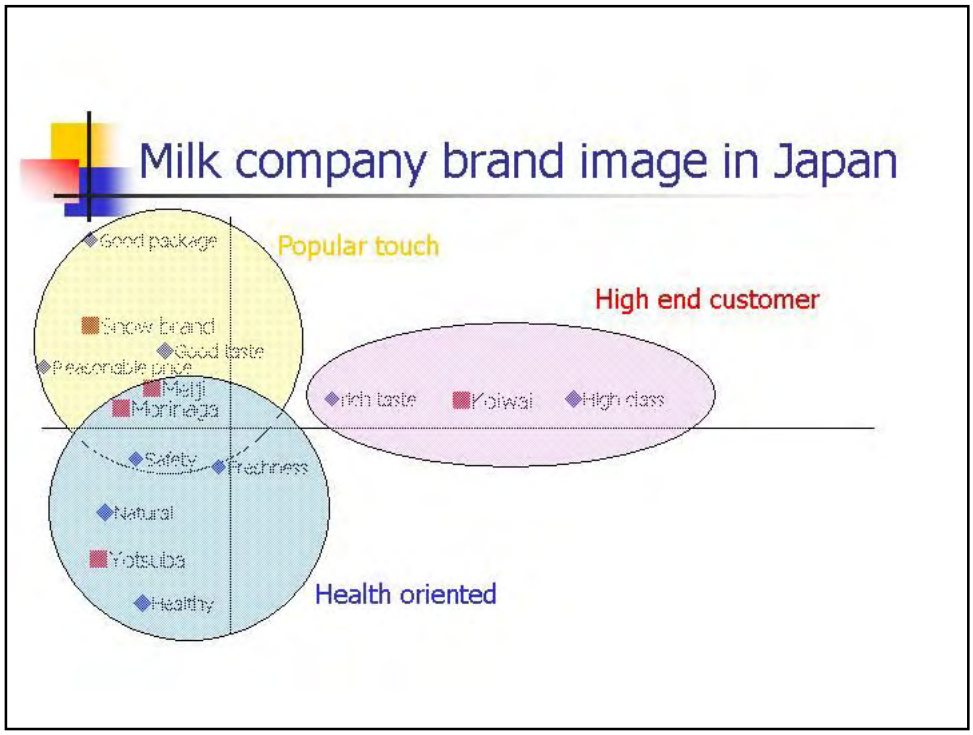
Dairy products to utilize all components



* Non-fat milk and whey are by-products.

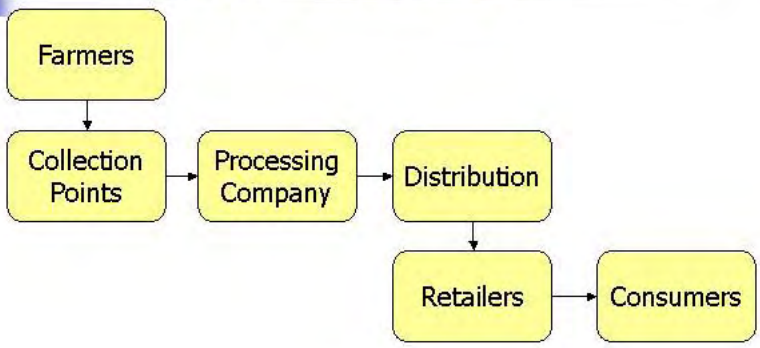
Main milk products in Japanese companies

Company name	Milk product	Product name and its price	Main markets	Remarks
Meiji Dairies Corporation (One of the big companies in Japan)		Natural taste (Good taste milk) 2.0-2.8US$/L	Supermarkets CVS Outlet store Home delivery system	Capital: 3.7 M US$ Sales amount: 53.5M US$
Yotsuba Co., Ldt. (Hokkaido origin company)		Tokachi Morning milk Yotsuba milk 2.7US$/L	Supermarkets Group buying direct from Hokkaido	Capital: 0.3 M US$ Sales amount: 10.6 M US$
Koiwai Dairy Product		Koiwai milk 2.8US$/L	Limited supermarket Home delivery system	Capital: 0.2 M US$ Sales amount: 4.0 M US$


Milk company brand image in Japan
Good package
Popular touch
High end customer
Snow brand
Good taste
Reasonable price
Meiji
Morinaga
rich taste
Koiwai
High class
Safety
Freshness
Natural
Yotsuba
Healthy
Health oriented

Recognized butter of Petropavlovsk in Astana market
1. Why butter of Petropavlovsk ?
2. How to improve the technology ?
3. How to show and sell to the markets as Brand?
750
750
450

How to show the products and their safety process to your consumers



Products specification for strengthening competitiveness (1)

1. Butter

North Kazakhstan Brand butter

- Canned or tube packaging to protect butter from mold
- Need hygiene consideration of packaging area

2. Cheese

Cheese paste: to collect protein by Ultra filtration from whey, by-product of cheese production, to make ice cream and cheese paste

Fresh-type cheese production with high water contents

Low cost cheese production with new lactobucillus species

Products specification for strengthening competitiveness (2)

3. Fermented milk

   Mixture drink of milk, cereal and lactobacillus

4. Ice cream

   Soft cream mix

Dairy machinery of Japan

For Milk production who has English website

- Hisaka Works, Ltd.: Sterilizer, Concentrators
- Iwai Kikai Kogyo Co., Ldt.: Heat Exchanger, Pasteurizer, Sterilizing system
- Izumi Food Machinery Co., Ltd.: Ice Cream machine, Aseptic System
- Mayekawa Mfg. Co., Ldt.: Cooling & Freezing Equipment
- Mitsuboshi Belting Ltd.

(The Japan Food Machinery Manufacturer's Association)

7. Material of Food Processing Seminar (Meat Processing Products)

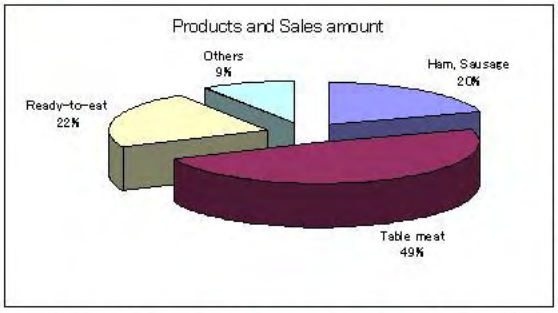
Food processing seminar (Meat processing products)

JICA study team
K. Ueno
March 12, 2010

Meat products classification in Japan

- Meat products
  - Heated meat products
    - Heating after packaging (Ham, Viena sausage etc.)
    - Packaging after heating (Sliced pack ham, Packed sausage etc.)
  - Specially heated meat products (Roast beef)
  - Dry meat products (Dry sausage, beef jerky)
  - Non heated meat products (uncured ham)

Meat processing industry in Japan



Gross profit margin rate in one company

Products	Gross profit margin rate
Table meat	4.4%
Ham and sausage	28.3%
Ready-to-eat	20.2%

Products and Sales amount in big four companies of Japan (2006):
Nippon ham, Ito ham, Prima ham and Marudai ham

Meat processing products sample in Japan (1)

Bone-less ham

Thin slice ham (47g, ¥198)

Uncured ham

Viena sausage (150g, ¥416)

Boronia sausage

Meat processing products sample in Japan (2)

Gyoza dumpling (¥3,000)

Bacon pizza with cheese
(230g, ¥298)

Lunch box, Sukiyaki
Using slice beef (¥295)

Meat processing products sample in Japan (3)

Ishikari-river bacon
(400g, ¥1,470)

Process meat gift set
(¥ 6,250)

Viena sausage
containing garlic
(250g, ¥945)

By-products utilization in Japan

1. Lard

   Edible Fat and Oil after trimming fat off pork

   For catering industry and restaurants

2. Feed material

   To reduce meat residues after meat processing

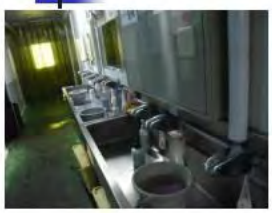
3. Natural condiments from livestock products

   Raw material for soup, sauce, seasoning oil etc.

4. Dietary supplement (Collagen)

< Example of Nippon Ham >

Sausage production factory in Japan (1-1)



Washing hands before entering working area

Disinfectant of hands (Sodium hypochloride)

Silent cutter Made in Germany

Sausage production factory in Japan (1-2)

Vacuum stuffer

Stuffing

Hanging sausages

Sausage production factory in Japan (1-3)

Smoking

Cooling with shower

Vacuum packaging

Sausage production factory in Japan (2-1)

Roller to remove dust

Packaging machine for uncured ham

Uncured ham

Sausage production factory in Japan (2-2)

Caution for workers

Air shower

5S Process in food factory

- Seiri: Throw away all rubbish and unrelated materials in the workplace
- Seiton: Set everything in proper place for quick retrieval and storage
- Seiso: Clean the workplace
- Seiketsu: Standardize the way of maintaining cleanliness
- Sitsuke: Practice Five S daily – make it a way of life
- And one more S !

Products specification for strengthening competitiveness (1)

Ham, Sausage

Slice packaged sausage: 250g,500g, 750g: heating after packaging

Several kinds of sausage:

- Viena sausage, Frankfurt sausage, Boronia sausage, Cooked sausage

Products specification for strengthening competitiveness (2)

2. Ready-to-eat food

Packed perimeni with special meat

Pizza with cheese : collaboration with dairy company

Meat processing machinery information

Meat processing company list

Gyoza Dumpling machine: Toa Industry Co., Ltd.

(Fully Automatic Gyoza Manufacturing Machine, Small Type Gyoza Manufacturing Machine, Bud Shape Encrusting Machine)

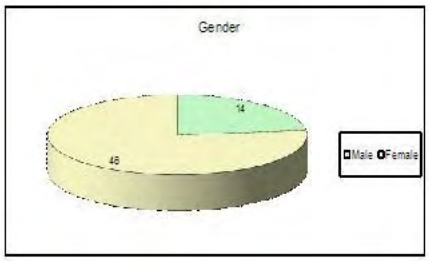
5. Material of Food Processing Seminar (Regional Brand Building)

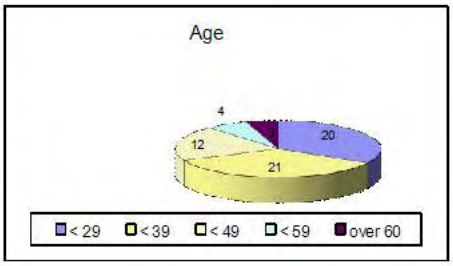
1. Study of image of food products made in Petropavlovsk among the citizens of Astana city

3

Results of questionnaire in Astana city

- Date :16/12/2009
- Location : Astana city
  (Railway station, Shopping center, Residential area)
- Participants : Total 60





4

Which food products made in North-Kazakhstan oblast do you prefer?

№	Item	Amount	Answers percentage
1	Cereals	14	23%
2	Flour	25	41%
3	Pasta	39	65%
4	Confectionary	8	13%
5	Milk	39	65%
6	Butter	45	75%
7	Yogurt	11	18%
8	Cheese	20	33%
9	Meat	13	21%
10	Sausage	36	60%
11	Other meat products	1	1,6%
12	Drinks	1	1,6%
Total		60	100%

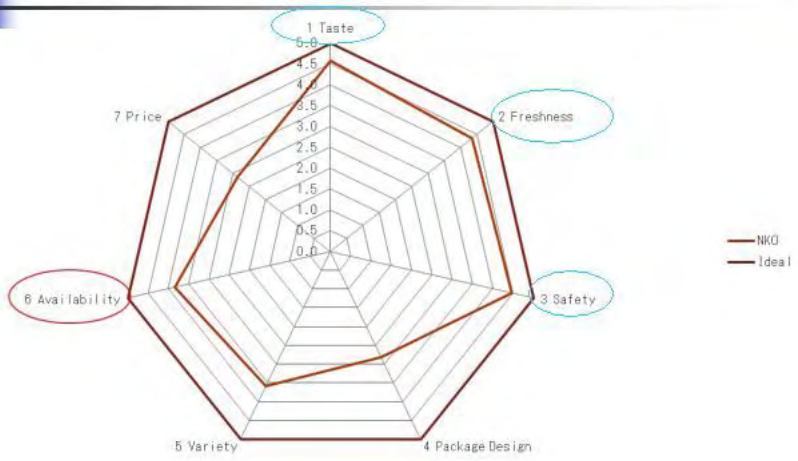
5

Do you buy the agricultural products made in North-Kazakhstan oblast?

№	Parameter	Amount	Remarks						
			Milk	*Butter*	*Sour cream*	*Meat*	*Sausage*	*Pasta*	*Other*
1	Usually I buy.	43	14	10	1	4	1	17	0
2	I've ever bought	13	4	3	0	0	2	0	1
3	I've never bought	3							
Total		59	18	13	1	4	3	17	1

6

Your opinion about North-Kazakhstan products ?



7

Results

(1) Citizens of Astana city prefer MILK, BUTTER , PASTA AND SAUSAGE made in North-Kazakhstan oblast.

(2) Citizens of Astana city usually buy MILK, BUTTER AND MACARONI made in North-Kazakhstan oblast. .

(3) Citizens of Astana city consider that the products made in North-Kazakhstan oblast are TASTY, FRESH AND SAFE.

This is image of NKO

8

2. Example of regional brand building in Japan

9

①What does "Tokachi brand" means ?

The concept of Tokachi brand is:

«Confidence, safety and excellent taste»

Standard	Besides the requirement that 100% of raw materials are produced in Tokachi (confidence), there is comprehensive quality and sanitary conditions control (safety) and organoleptic analysis (taste).
Certification period	3 years (yearly inspection)
Participants of the brand	«**Examination routine of Tokachi brand**» Selection of companies approved for the production. Development of standards for each category of food products and implementation of quality control.

Total area of Tokachi is 10827,47 к м2.
«Tokachi , Kingdom of dairy farms» is really focus of natural delicious tastes.

10

Tokachi brand image «Double Star»

Presently there are 11 cheese-making companies (64 assortment items), 16 bakeries produce 161 different items under Tokachi brand.

Tokachi cheese-making companies placement

11

②Regional brand“Miyazaki Brand”

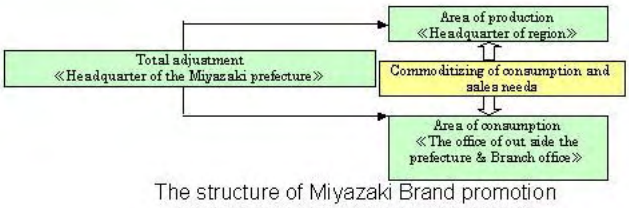
- Miyazaki Prefecture unifies the name of regional specialty products in “area name & products name” and promotes the products sales providing brochures in exhibitions, department stores and supermarkets (refers to the pictures on the right). Furthtermore, packagings with the prefecture governor’s portrait tell consumers that the products are recommended by the prefecture governor himself.

Miyazaki Mango Pudding with the prefecture governor's portrait.

The Miyazaki Brand Book

An example of the government initiative regional brand "Miyazaki Brand"

"Miyazaki Brand" is an example of the government initiative regional brand that is mainly formed by "Miyazaki Brand Promotion Headquarter", its head office is the Ministry of Agriculture, Policy and Fisheries, Division of Agriculture, Policy and Plan, Miyazaki Prefecture. Honored chief of the headquaters"Miyazaki Brand Promotion Headquater"is assigned by prefucture governor and the characteristics of business type that the Miyazaki prefecture governor himself conducting business is limelighted in the nation wide level.



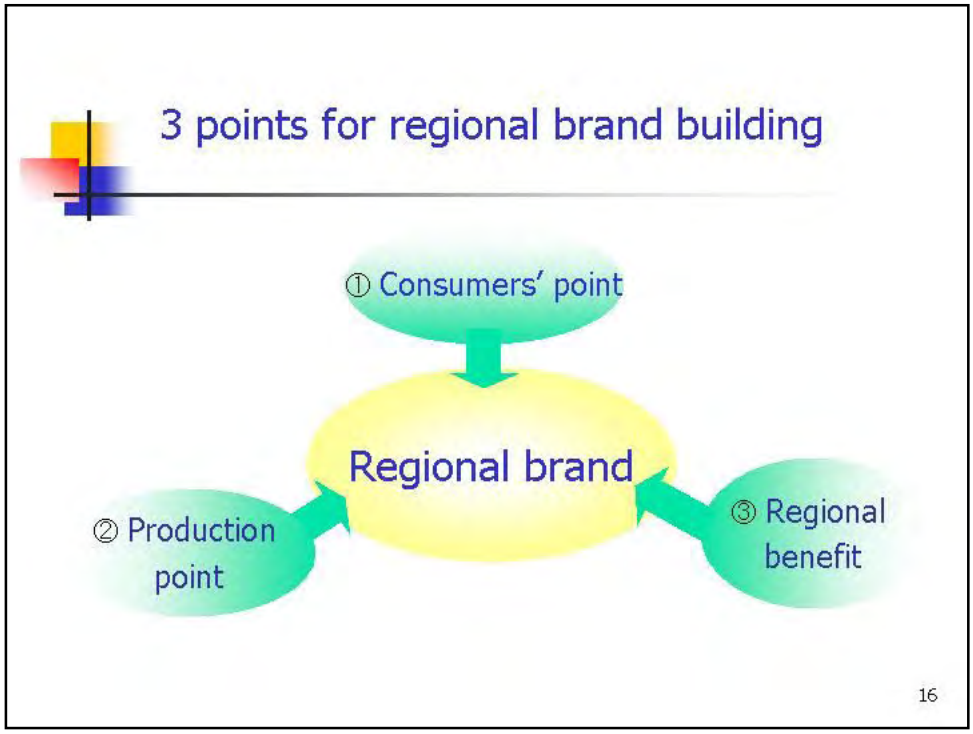
The structure of Miyazaki Brand promotion
Reference: Miyazaki Brand Promotion Headquater
http://www.miyazakibrand.jp/miyazakibrand/outline/index.html

Miyazaki Brand Recognition Institution

- "Miyazaki Brand" captures the consumption and distribution needs precisely. And the "Miyazaki Brand" is well known in safety and reassurance. In addition to the safety and reassurance, agricultural products and commodities' high standard in the appearance including shape and colour, taste (sweetness and sourness), freshness, specification, trend and cultivation methods are highly recognized at the national level. The producers and products areas are highly recognized in their products' brand name and that encourages producers to hold high manufacturing sprits (Monodukuri) and that makes the products brand well known in safety and satisfaction to markets and consumers.

Main Body	Miyazaki Brand Promotion Headquater (Miyazaki Prefecture)
Concepts of the brand	Creation of special commodities (Promoting the commodity brand recognition institution) Creation of the reliable areas of production (Implementation of on time, given quantity and quality system) Stabilized trading (Expansion in commodity brand strategic sales action plan)
Object	livestock, vegetables, fruits, flowers
Standard	Each commodities holds the standard in tastes, freshness and safety
Recognition effective period	Not specifically limited

3.Regional brand building in NKO
15


3 points for regional brand building
① Consumers' point
Regional brand
② Production point
③ Regional benefit
16

① Consumers' point

Consumers' confidence and appreciation rise

Open information about the producer of food products

・production technology・processing methods
・cattle raising system

17

Example of consumers' confidence and appreciation rise

Milk package with producers' picture

Information about the certain farmers

18

Example of consumers' confidence and appreciation rise

Creation of informational web-site in internet

Brief information about the producer with the name of the company, concise description of the product, its price, picture of the producer and merits of the product.

19

② Production

Business type «Business expansion at the expense of increase of production volume»

①cheap labor power + ② cheap land = ③ cheap goods

Business type «Production of goods with high added value»

production of goods with high added value

20

Example of added value rise

Premium milk (milk taken from a single cow) is produced only here.

From the herd of elite cows which were bred with accuracy and patience the cow with the best characteristics and choice milk content is selected.

It never mixes with milk taken from other cows. This type of milk is called non-blend.

Herd-book

- 200ml 4.2US$ (624kzt.)

MIZAWA farm

21

Example of added value rise

Whey utilization for hog fattening in Hokkaido

While using the meat obtained with this technology Nihon Ham company produced special range of products.

For the purposes of introduction of new technology in hog fattening this company founded its own trial farm, that's why all the products are made from own raw materials.

*いずれも販路は、全国の量販店、食料品店

22

③ Benefits for the regional population and economy

- Promotion of development of regional economy using regional brand

Examples. Activities, festivals, antenna shops in other regions

23

Antenna shop - "Hokkaido Dosanko Plaza" (Tokyo)

The management of this shop is executed by Sapporo Marui Imai company. Hokkaido island authorities promote the activities of this shop.

24

Examples of promotion of regional economy

Open farming

Tourist visitation of ordinary farms

Sausage making

Do-it-yourself milking

Butter production

Meat gift set

Dairy gift set

25

North-Kazakhstan regional brand building

Which brand might be created in North-Kazakhstan oblast?

First step is always hard to make.
But once it's time to do it.

26

Our proposals

1) Organization of the working group for brand building
2) Selection of brand concept
   Example: Confidence, Safety and Taste
3) Creation of informational web-site in internet
   Example: to the right
4) Introduction of the common standard for the means of preservation of brand's quality
5) Participation of the brand-building companies in exhibitions

27

Thank you for your attention!

28