Sustainable Agriculture in Miyagi

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The Location of Miyagi Prefecture

- Located in the south-east of the Tohoku region
- A rich granary which faces the Pacific Ocean
- 36 municipalities (13 cities, 22 towns, 1 village), 2,360,000 people
Agriculture in Miyagi

Superior quality rice such as the “Hitomebore” brand, beef and strawberries... Miyagi Prefecture plays a significant role as a food supplier in Japan.

The Amount and Ratio of Agricultural Production (2005)

- Rice: 92 billion yen (46%)
- Livestock: 68.9 billion yen (35%)
- Horticulture: 25.9 billion yen (13%)
- Other: 12.9 billion yen (6%)
- Total: 199.7 billion yen
Summary of Major Agricultural Products (Rice)

- Miyagi Prefecture developed two representative rice brand such as “Hitomebore”, “Sasanishiki”.

- 420,000 tons of rice is produced in a year, and is delivered to consumers in the whole country.
Summary of Major Agricultural Products (Livestock)

In the natural surroundings, dairy cows, beef stocks, pigs are raised.

① National renowned high quality “Sendai Beef”
② “Miyagino Pork” and “Shimofuri Red Pork” varieties
③ Selection of lineage of high quality beef and pork
Summary of Major Agricultural Products (Horticulture)

The horticultural industry in Miyagi aims to be productive all year round to introduce new technologies such as hydroponics and production facilities such as steel pipe greenhouses.

① Vegetables: Strawberries, Cucumbers, Spinach, and Tomatoes
② Flowers: Chrysanthemums, Roses, Carnations, and Native flowers of European countries
③ Fruits: Apples, Japanese pears, Persimmons, and Plums
Introduction of the Excursion
September 20 ~ 21st

COURSE A : Marumori・Yonezawa
COURSE B : Naruko・Sagae
COURSE C : Tome・Maesawa
COURSE—A Marumori town

Hanzawa Ranch

Seiten
COURSE — B Osaki city

Suzuki Ranch

Farmhouse Restaurant 「Rinsai Uenoie」

Milk Factory
COURSE — C  Tome city

Farmers of Environmental preservation rice

Compost Center

Ridging work of soybean

Spreading work of compost
Actions for Sustainable Agriculture in Miyagi

- To supply reliable agricultural products to the consumers and food industries
- To reduce the environmental damage caused by the agricultural production activities

Definition of Sustainable Agriculture in Japan
An approach to farming that reduce the environmental damage caused by the use of chemical synthetic fertilizers and agricultural chemicals, through the soil management by using natural sustainable system of agriculture and harmonizing with productivity.
Specific Actions in Miyagi

- Encourage “Eco-farmers” who practice sustainable agriculture
- Promote “Special Cultivated Agricultural Products”, and “Organic Agricultural Products”
- Develop the technical methods on sustainable agriculture, and so on.

[Cutdown rate of synthetic fertilizer and agricultural chemicals]

- Organic Agricultural Products → 100%
- Special Cultivated Agricultural Products → 50% and over
- Eco-farmers Agricultural Products → 20–30% and over
- General cultivated Agricultural Products → 0%
“Eco-farmers” in Miyagi

“Eco-farmer” is a name given to farmers who are officially approved as practitioners of sustainable agriculture by the Law for Promoting the Introduction of Sustainable Agricultural Production Practices (1999).

Symbol mark

7,317 people are approved as of 2006 in Miyagi

The fourth rank in Japan

Approximately 6% of all eco-farmers in Japan
Production of “Special Cultivated Agricultural Products”, and “Organic Agricultural Products” in Miyagi (2005)

- Special Cultivated Agricultural Products are planted total 14,452 hectares, and is proud of an eminent area nationwide. 98% of that area is the area for rice, and Special Cultivated rice is planted 18% of the whole rice paddy fields in Miyagi.
- JAS Organic Agricultural Products 37ha → 245ha
Tome city

Population 88,713
Households 26,180
Farmer houses 10,527

Rice planted area 11,700ha (2005)
Special Cultivated Rice planted area 8,136ha
Organic Cultivated Rice planted area 147ha

Environmental Preservation Rice is planted 70% of the paddy fields in the city.

Raise 30% of stock beef in the prefecture
Evolution of planted area, price, and consumption of rice

![Graph showing the evolution of planted area, price, and consumption of rice over time. The x-axis represents years from 1965 to 2003. The y-axis represents the price (in thousand yen) on the left and consumption (in kg) on the right. The diagram indicates trends in planted area (in ten thousand ha) across these years.](image-url)
Circulation of Straws and Compost

Compost products → Reduction of synthetic fertilizers

Rice planting

Supply of straws

Compost facilities, etc. → Supply of excrements

Supply of excrements → Feed or carpet for stock beef

Feed or carpet for stock beef
Disinfection Method by Hot Water for Rice Seeds

Soak rice seeds in the 60 degrees hot water for ten minutes or 63 degrees for five minutes.

Control the outbreak of diseases in the period of raising seedling.

Spreaded into 56% of the paddy fields in Miyagi as of 2006.
Weeding by Machines

Easier in use of riding machines
“Aigamo” Duck Farming

Method of turning “Aigamo” ducklings out to the paddy fields.

**Aigamo:** Crossbred Duck for food. They cannot fly.

**Strong points:**
- Weeding
- Extermination of noxious insects
- Supply of oxygen to the plant roots

**Weak points:**
- Prey for wild animals
- Hard to enlarge the scale

Cover paddy fields with a net
Put tools to avoid invaders
Weeding

Extermination of noxious insects

Supply of oxygen to the roots

Prey for wild animals

Hawks

Foxes

Weeding
The Exchange Programs in Tome

Discussions and exercises of agricultural works, etc.

Stronger partnership with consumers
“Fuyu Mizu Tanbo”
(Winter-flooded Rice Paddy Fields)

A method which fills the rice paddy fields with water in winter to make a resting place for birds (ducks, goose, swans, etc.)

We fill the rice paddy fields with water in winter.

Migratory birds have come.
Izu-numa, Uchi-numa, and Kabukuri-numa listed in Ramsar List on Wetlands of International Importance

- **1985** Izu-numa and Uchi-numa are designated. (The second designated site in Japan)

- **2005** Kabukuri-numa and surrounding rice paddies (259 hectares) are designated.

  - Designation of rice paddies is a rare case in the world.
Birds pick gleanings and glasses in and around the paddies.

Effects:

- A resting place for birds
- A habitat of fishes and aquatic insects
- Bird droppings as natural fertilizer
Voices of the Farmers in Tome

• “I had thought it impossible to reduce agricultural chemicals to half, but now I believe firmly it is possible by contriving.”
Dragonflies are the symbol of paddy fields since early times in Japan. We would like to leave paddy fields to our children where they can see many dragonflies around and their through sustainable agricultural practices.

“Dragonflies are the symbol of paddy fields since early times in Japan. We would like to leave paddy fields to our children where they can see many dragonflies around and their through sustainable agricultural practices.”
• “We promise to provide the rice you can trust in.”
• “Try the environmental preservation rice.”
• “We will continue technical effort, and cope with the sustainable agriculture.”