

The Fruit Tree Protection Project



Project Site Salto Grande

1. Background of Project

Citrus is important among the fruits growing in Uruguay, and promoted by the Government. As a consequence, the area in which citrus is planted amounts to 46 percent of the total land for fruit growing. However, the sector still uses low-level techniques. Furthermore, Salt Grande Station (experimental field) in the National Institute of Agricultural Research (INIA), which is engaged in research on citrus fruits, lacks the capacity to conduct research. Citrus farming is hindered by the poor quality of the fruit. Therefore, the Government of Uruguay requested the Government of Japan to provide technical cooperation for enhancing the research capability of INIA.

2. Project Overview

(1) Period of Cooperation

1 March 1995-29 February 2000

(2) Type of Cooperation

Project-type Technical Cooperation

(3) Partner Country's Implementing Organization

National Institute of Agricultural Research (INIA)

(4) Narrative Summary

1) Overall Goal

To improve citrus producers' cultivation techniques for the production of high-quality citrus fruits and to promote the stable management of citrus fruit cultivation.

2) Project Purpose

To enhance research capabilities in order to solve technical problems related to plant protection and the orchard management of citrus trees at INIA.

3) Outputs

Research, analysis and development of techniques in the following fields;

- a) Disease Control
- b) Insect Pest Control
- c) Orchard Management

4) Inputs

Japanese Side

Long-term experts	7
Short-term experts	12
Trainees received	15
Equipment	approx. 170 million yen
Local cost	approx. 5.4 million yen

Uruguayan Side

Counterparts	21
Land, buildings and equipment	
Local cost	approx. 89 million yen

3. Members of Evaluation Team

Team Leader/Plant Diseases:

Akira KUDO, Director, Department of Plant Protection, National Institute of Fruit Tree Science, Ministry of Agriculture, Forestry and Fisheries

Cultivation:

Takeshi KIHARA, Associate Director for Research, Department of Citriculture, National Institute of Fruit Tree Science, Ministry of Agriculture, Forestry and Fisheries

Insect Diseases:

Shinkichi KOMAZAKI, Chief of Laboratory of Entomology, Persimmon and Grape Research Center, National Institute of Fruit Tree Science, Ministry of Agriculture, Forestry and Fisheries

Cooperation Evaluation:

Hideyuki TAKUMA, Senior Technical Officer, Technical Cooperation Division, International Affairs

Department, Economic Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries

Project Management:

Jiro TAKEICHI, Livestock and Horticulture Division, Agricultural Development Cooperation Department, JICA

4. Period of Evaluation

15 August 1999-30 August 1999

5. Results of Evaluation

(1) Efficiency

The provision of machinery and equipment was appropriate in terms of timing and quantity. Equipment was procured promptly from local suppliers. In addition, problems, such as the temporal absence of long-term experts and some counterparts working only part-time in the early stage of the project, were addressed appropriately through the support from the team leader and short-term experts and the increase of counterparts of INIA. As a whole, efficiency of the project inputs can be judged as high.

(2) Effectiveness

The project established measures for disease control through examination of major harmful insects and disease-causing bacteria, including those peculiar to Uruguay. In the field of orchard management, technical transfer of research and study methods were implemented according to plan through training of counterparts. As a result, the effectiveness of the project is confirmed as high.

(3) Impact

The project improved INAI's techniques for the conservation of fruits and cultivation management. Accordingly, the project contributed to increasing export of fruits. In addition, the project had a positive impact on the environment, as it decreased chemical spraying due to the improvement of cultivation and storage techniques.

(4) Relevance

Citrus continues to be one of the major export items of Uruguay, and the national policy to promote citrus cultivation remains. To further develop the citrus industry in Uruguay, there remains a strong need for consultation on issues of fruit tree protection and orchard management. Therefore, both the project purpose and the overall goal are deemed appropriate.



A greenhouse provided by the project. It is utilized to produce a virus-free strain using grafting techniques.

(5) Sustainability

In Uruguay, a Citrus Planning Committee that consists of representatives from the Government and private sector was organized long ago. The committee makes and executes policies concerning citrus, and also develops citrus markets. In support of these activities, the committee entrusts citrus research to INIA. Thus, the sustainability of the organization is judged as high. The technology transferred in the project is adequate for counterparts to implement post-project activities. Furthermore, financial sustainability of the project is also confirmed since the annual budget of INIA consists of subsidies from the Government and self-raised funds from selling young plants.

6. Lessons Learned and Recommendations

(1) Lessons Learned

Time-consuming project activities such as the care of trees and breeding of plants could not be completed during the limited project period. To address this, the project should ensure that counterparts have the necessary skills to continue the activities independently.

(2) Recommendations

It was recommended that the project should end on schedule in February 2000, since the purpose of the project was largely achieved. It is expected that INIA will disseminate information based on research to citrus farmers, while properly maintaining the equipment provided and continuing the research activities and data collection by means of techniques transferred in the project.