Strengthening Through Education the Sustainability of Solanaceous Crop Production in the Western Pacific Region

Robert Schlub, Extension Plant Pathologist (Guam: Research and Education Grant)

Western Region Sustainable Agriculture Research and Education

Project Number: SW99-047

Title: Strengthening Through Education the Sustainability of Solanaceous Crop Production in the Western Pacific Region

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Solar set tomato plants on a Guam farm

Situation

Fresh eggplant, pepper and tomato (solanaceous crops) are becoming more popular among Pacific island consumers. They are easy to grow and their seeds can be collected and used the next year. But growers in the Pacific region often struggle to find production information that applies in the tropics.

Objectives:

- Establish a working group of people from the private and public sectors interested in educating people about solanaceous crops
- Publish a guide on producing eggplants, peppers and tomatoes in the tropics
- Disseminate information on these crops over the Internet, in classrooms and in newspapers

A tomato crop on Guam

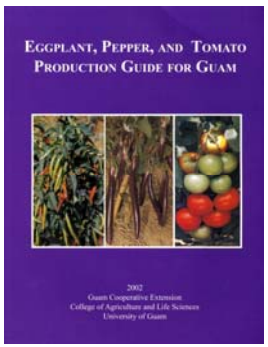
Actions

Robert Schlub, the principal investigator, solicited expertise on producing solanaceous crops from several experts located in Guam, Hawaii, the Northern Mariana Islands, the Federated States of Micronesia and American Samoa. In addition, growers on Guam were surveyed about diseases, pests and current farming practices.

With this information and assistance, a 188-page soft-cover guide, "Eggplant, Pepper, and Tomato Production Guide for Guam," was published. It contains 17 chapters and five appendices and features 42 color plates, 54 figures, 47 tables and 16 recipes. The chapters and appendices are:

<u>Part 1, Getting Started</u>

Chapter 1	Getting Started
Chapter 2	Growth and Development
Chapter 3	Production
Chapter 4	Irrigation, Fertigation and Drainage
Chapter 5	Harvest and Postharvest Handling
Chapter 6	Container Gardening and Horticultural Therapy
Chapter 7	Nutrition and Recipes



<u>Part 2, The Economics of Farming</u>

Chapter 8	Developing Budgets
Chapter 9	Economic Assessment
Chapter 10	Financial Assistance to Guam's Farmers

<u>Part 3, Plant Problems and Solutions</u>

Chapter 11	Trouble Shooting Problems
Chapter 12	Plant Diseases
Chapter 13	Animal Pests
Chapter 14	Insects and Mites
Chapter 15	Weeds
Chapter 16	Regulations Regarding the Importation of Propagative Plant Material
Chapter 17	Pesticide Safety

<u>Part 4, Appendices</u>

Appendix 1	Eggplant, Pepper and Tomato Production Survey
Appendix 2	Guam Variety Evaluation Trials
Appendix 3	Guam Farmer Survey
Appendix 4	Seed Company Information
Appendix 5	Helpful Resources
	Selected References
	Color Plates
	Glossary

Results

- 2,000 copies of the guide were published, a number of which were distributed free to Integrated Pesticide Management coordinators and college libraries in the Pacific
- A poster highlighting the guide was presented in August 2002 at the annual meeting of the American Phytopathological Society
- In September 2002, the guide was presented to growers and government agencies, and a consortium was formed to promote the production of eggplant, peppers and tomatoes on Guam
- Guides were distributed in October 2002 to the steering committee of the American Pacific Pest Management Information Network

University of Guam plant pathologist Robert Schlub inspects a tomato plant

Potential Benefits

The publication should increase the level of knowledge about solanaceous crops among farmers, extension agents, students and homeowners. Tables listing all of the known insects and plant diseases of eggplant, pepper and tomato in the Pacific will help with diagnostics. If the publication contributes even a 2% gain in production of these plants, it could increase sales by $100,000.

Extension agents Jesse Bamba, right front, and Phoebe Wall, center, talk with local farmers at a workshop on a Guam farm