



Western SARE Program

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MARSHALL ISLAND SUSTAINABILITY

Situation

The tropical atoll agriculture found in the Marshall Islands presents farmers with challenges seldom encountered in other environments:

- Winds and salt spray damage crops near the shore
- Inadequate rainfall some years limits growth
- Low fertility of alkaline soils inhibits plant growth

The Marshallese people are familiar with the traditional crops like coconuts, breadfruits and pandanus, but they have little understanding of the new crops that this project is trying to introduce, especially the leafy vegetables.

Objectives

1. Educate and train extension agents, government



Village members listen to a presentation on sustainable practices.

agricultural staff, agricultural professionals and members of nonprofit and farm organizations in on-farm implementation of sustainable management systems through training workshops and field days



Bed preparation is a community effort.

Professional Development Program Grant

Project Number: EW05-004

Project Title: Training on On-Farm Implementation of Sustainable Management Systems for Tropical Atoll Agriculture in the Marshall Islands

Project Coordinator:

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Collaborators:

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SARE Grant: \$37,362

2. Hold one-day brainstorming audio-visual conferences on "Sustainable Atoll Agriculture: Needs, Management Strategies and Future Potential," followed by a four-day training workshop at eight sites throughout the Republic of the Marshall Islands
3. Develop, publish and distribute sustainable farming guides, handouts and brochures in English and local languages
4. Develop and distribute a video, in English and local languages, on sustainable compost preparation and use



Western SARE, a USDA organization, funds grants for research and education that develop or promote some aspect of agricultural sustainability, which embraces

- *profitable farms and ranches*
- *a healthy environment*
- *strong families and communities.*

The Western Region, one of four SARE regions nationwide, is administered through Utah State University.

Western SARE:
<http://wsare.usu.edu>

National SARE
www.sare.org

Actions

A change in the project coordinator in May 2006 resulted in a revised plan of work under the direction of Dr. Nacanieli Tuivavalagi.

The project team has trained individuals on six Marshall Island atolls: Ailuk, Arno, Ebon, Mejit, Mili and Ujae. Two other atolls, Malaolep and Kili, will also be visited.

In addition, five staff members of the land grant program attended a short course on Adobe Photoshop through collaboration with the Development of Sustainable Agriculture in the Pacific Project of the Secretariat of the Pacific Community.

Activities to be completed:

- Develop topics and content for guides, brochures and handouts
- Produce videos demonstrating sustainable agriculture techniques

Results

The project team has demonstrated several sustainable practices, including how to make a vegetable garden, nursery production, transplanting, fencing and composting. In addition, residents have learned about trench gardening, whereby trenches



Above, seeds are planted directly into prepared seedbeds or, below, on pallets for transplanting into beds when the seedlings mature.

(drains) are dug and filled with organic debris. The crops (bananas etc.) are planted on the side of, or inside, the trench.

Basic tools (rakes, shovels, hoes, picks, watering cans and machetes) are left with group leaders so they can expand the plots.

The groups are revisited at harvest time to show crop harvesting techniques. In addition, a food and nutrition officer demonstrates food preparation and discusses



the importance of a healthful diet.

Potential Benefits

This train-the-trainer project has the potential to help the Marshall Island atolls improve food self-sufficiency by improving soil fertility through compost application and training locals in sustainable food production. This could expand options to grow crops like corn, pokchoy, cabbage, radish, cucumbers, tomatoes and other new crops, especially leafy vegetables. This could:

- Improve residents' nutrition
- Lead to long-term availability of local fresh food at affordable prices
- Serve as a model for the Micronesia region
- Ensure food security
- Generate farm income



Seedlings emerge in a raised-bed garden.