



Viable Micro-plot Production Storage

On Guam, agricultural production is characterized as many small operations, most an acre or smaller (90% of operations). The challenge is making “large scale production” practices and technology viable for micro-plot and small production farmers. Therefore, harvest and mass storage of product for each operation has not been economically viable because traditional systems use a lot of energy (a very expensive resource for Guam producers). In addition, Guam’s agriculture supply chain is vulnerable to interruption due to adverse weather conditions in the region, causing import delays of perishable agricultural produce. Food security and storage has also been a challenging issue for local farmers.

CE&O specialists partnered with farmers to explore small scale cooling for safe storage. CE&O specialists, Dr. Kuan-Ju Chen and Mr. Jesse Bamba are working to address the needs of small-scale farmers to assess the application of this post-harvest handling technology. All efforts contribute to food security, sustainability, and supply efforts.

An example of using the Extension network of specialists and educators addressing the needs of citizens and producers, CE&O is exploring the use of “CooLBot”. Building upon work at the University of California-Davis, Extension on small space cooling for post-harvest handling and storage identified “CooLBot” as an “add-on piece” to a room air conditioner. In small space containment (approximately 20 feet by 20 feet), the “CooLBot” attaches to an air conditioner that can cool the contained space, eliminating need for major refrigeration units. CE&O is exploring application, input costs, and



Left: Jesse Bamba; Right: Dr. Kuan-Ju Chen

operation expenses, as well as viability of small-scale holding space for vegetable and fruit production for the island. Extending the viability of produce can have a positive impact on food security issues for the island of Guam.

If you are interested in learning more about this program, reach out to our Extension Professionals below:

Kuan-ju Chen, Ph.D.

Assistant Professor of Agricultural Economics
671-735-2053 / chenkj@triton.uog.edu

@uogcnas



1 (671) 735-2080 || 303 University Drive UOG Station, Mangilao, Guam 96923 || www.uog.edu/extension