

Featured Farmer: Fung Yang Small Kine Farm, Waimānalo, O'ahu

Area under production: 9000 square feet, a small footprint, high efficiency, zero-waste and technology driven farm.

Years farming in Hawai'i: 5 years

Crops Grown: USDA Certified Organic Mushrooms

Number of Employees: 3 full time employees

Production System

We compost under-utilized green waste to grow certified organic Portabella and Crimini mushrooms. The only by-product of our food production process is pathogen-free, weed free, chemical-free, nutritious organic plant fertilizer.

Fertility management: Fertilizers and amendments are added to compost in the beginning of the decomposition process. Carbon to nitrogen ratio are carefully monitored before and during composting.

Pest Management: All of the pathogen, eggs and seeds are killed off during pasteurization, which is accomplished by high heat and long hours inside air-tight room.

During the cultivation process, outside air is filtered before entering each room to keep bugs and other competitive fungi out. Employees are properly trained to minimize cross contamination between rooms and reduce the risk of pest introduction into the rooms.

Food Safety: All our employee have had food safety certification training and we were food safety certified in 2013. We still follow standard operation procedures that we learnt from being food safety certified, but we had no intention to renew the certification due to high renewal cost. Food safety is relatively expensive for small farms. The per unit cost of food safety certification will become much lower as the scale of production increases. Food safety certification is only justified if our customers are willing to pay for our additional cost.



Mixing compost substrate.



Keiki Portabella



Mycelium covering the organic substrate and mushroom pin heads.

Strategies for controlling costs: Labor is our biggest cost of production. It is harder for small operations to practice specialization of labor. To control our cost of production, we practice job rotation, job enlargement and job enrichment activities. It also helps workers to avoid boredom and dissatisfaction.

Production planning: Our production plan is based on how much we want to harvest everyday. Understanding how much we want to harvest is based on knowing how much the market needs. I first figure out

the market demand, then I will produce the amount of mushrooms to meet market demand. It is critical to know market demand and supply. Oversupply of mushrooms is like trying to offer more food to your family members after they all finished eating the Thanksgiving dinner.

Marketing Strategy

We are not only the first Portabella farm ever in Hawai'i, but also the only USDA certified organic mushroom farm in Hawai'i. While all my Mainland competitions are focusing low price, I focus on quality first. High quality is our competitive advantage. We want to compete on quality not price alone. In order to further differentiate our products from imports, Keiki Portabella and Tutu Portabella are used as the trade names for our locally grown organic Portabella mushrooms.

Pricing: We set the price at where employees at the Small Kine Farm can maintain a normal standard of living in Hawai'i standard.

Promotion: We have not put much effort into this and still have a lot to do in term of promotion.

Places you sell your products: Farmers market, restaurants, specialty grocery stores and Community Supported Agriculture (CSA), but be very careful of the new virtual businesses who don't pay you on time or sometimes don't pay at all.



Tutu Portabella

Could you give us an idea of the future for your farm?

Small Kine Farm will continue to develop and grow vertically inside multi-story high structures. Renewable energy systems such as solar, wind, deep water source cooling and maybe even spent heat from composting will be incorporated into the farm. Hopefully, automatic mushroom harvesting machines will be installed in every grow room in the near future.

New products or services you are planning: Residential organic waste recycling services to collect and compost them all for mushroom farming.

What does sustainability mean to you and how to you plan to ensure Sustainability for your operation?

I believe in a business model involving people, planet and profit. We offer employees a job to keep a quality standard of living. We avoid the externalization of production cost and harm to environment. We also need to maintain a healthy profit margin for the farm to grow and invest in new technologies.

Explain how the next generation successfully integrated into the farm, how it happened or didn't happen? We will complete a Small Kine Farm operation manual for the next generation to follow when the time comes.

HOT TIP from Small Kine Farm

- ▶ Run it like business not a hobby, unless it is a hobby.



Small Kine Farm

<http://www.smallkinefarm.com>



Mahalo nui loa to Fung Yang for this interview and photos. Additional photos by Ted Radovich.