

Featured Farmers: Fred and Brendon Lau

Mari's Garden, Mililani, O'ahu

Area Under production: 17.5 acres

Growing since: 1976 (Mākaha), 2008 at current location

Crops: Mixed species ornamentals, including palms and some turf have been integrated with aquaponic production of tilapia (300 lbs/week), lettuce (2 acres) and other vegetables (cucumbers, tomatoes, green onions, beets, etc.).

Fertility Management: Commercial synthetic fertilizers are used in most of the ornamentals. Recently, an estimated 14,000 gallons of fish effluent per week have replaced commercial fertilizers in approximately 200 shower trees, 200 palms, 1 acre of greenhouse, and about 0.25 acre each of turfgrass, banana, and longon. Seedlings are grown in peat mix with commercial organic fertilizer. Vegetables are fertilized in floating beds with fish effluent amended with chelated iron (NOP compliant), and no additional fertilizers or pH adjustment.

Pest Management: NOP compliant Neem and Spinosad based pesticides are used as needed in the vegetables. Pest tolerant varieties are used when available. Tomato and cucumbers are grown in screen houses. Commercial synthetic pesticides are used in the ornamental crops.



Floating lettuce beds. Fish effluent is filtered through cinder beds colonized with worms. Water then passes through lettuce beds, and circulates back to the fish.



Turfgrass is fertilized exclusively by fish effluent.



Green onion germinating in aquaponics cinder bed.

What Sustainability means to you: Reduced food imports and reduced use of imported inputs. Increased food production on marginal land. Improved water use efficiency. Economic viability.

How did the next generation successfully integrate into the family farm? Exposing as many youth as possible to the farm/nursery. Son Brendon and employee Suzanne are actively involved with farm operations and were attracted by the day-to-day challenges, hands-on work outside, and the potential to make a living.

How do you price your products: We calculate all costs to determine cost (\$) per unit area (ft²) per month, then price products to make sure we are making a profit. This has been easy with the ornamentals and vegetables. We are still working on this process with the fish.

Where do you market your products: On-site in Mililani, Hawaii Farm Bureau markets, Umeke Market, Kokua Cooperative and Down-to-Earth.

How do you promote your products? We have not needed to promote, we cannot keep up with demand. As we expand we have plans to develop our website and farm visits (Agritourism).

How do you adapt production to meet the needs of clients? We are Food Safety certified and are planning to organically certify our food production areas in the near future.



Fred Lau sits at a decorative aquaponics table he developed for the edible landscape.



Organic lettuce seedlings.



Mānoa lettuce floating in aquaponic beds.

What does the future look like for your farm? In addition to the organic certification, we plan to increase aquaponic lettuce production area by 0.50 acre and add a 5,000 ft² screened greenhouse for tomato and cucumber production in the near future.

Mahalo nui loa to Fred and Brandon Lau for this interview. Photos: T. Radovich

HOT TIP from Mari's Garden

Know your costs and set your price; do not be a price taker. Develop your market before you grow because there is no time to market while you are harvesting.



Suzanne Lee, Brandon and Fred Lau