

Featured Farmer: Rick Tamanaha

Kaleikoa Farms, Ho'olehua, Moloka'i

Area Under production: Currently 16 acres - soon to be 23 acres (100% certified organic), Dept. of Hawaiian Homes homestead agricultural lot

Years farming in Hawaii: 40 years backyard farming, currently in 5th year of commercial farming.

Crops: As a start-up farm, we selected and concentrated on growing strawberry sunrise papaya - a type developed by Cooperative Extension Service (CES) agent Alton Arakaki specifically for Ho'olehua soil and weather. Because of high demand and an established distributor equipped with fruit fly treatment located right here on island, the papaya generated the necessary cash flow to acquire the proper equipment and expand production acreage quickly. Our first planting was three acres on January 15, 2007.

As we started our 3rd phase of expansion (additional equipment, buildings, and production acreage) at the end of 2009, we encountered a problem with axis deer that grew increasingly worse throughout 2010. A few deer would come each night and pull out seedlings in newly planted fields, poke thousands of holes in the mulch paper (weed control) and rub the bark off of mature trees effectively killing them. We planted and lost 4 1/2 acres in 2010.

There is not very much information available to combat the axis deer as all of the homestead farmers were devastated. We tried everything we could think of and eventually we managed to plant a successful acre in October 2010 surrounded with a 3,000 volt electric fence. The fence is 5 feet tall and the deer are already starting to realize that they can easily jump it. We are in the process of installing an 8 foot hog wire fence around our 23 acres and hope to have it completed by mid August this year.

As soon as the fence is completed, we will be planting butternut squash and varieties of mini eggplant and hope to keep them on a par with our papaya output. We plan on experimenting with cantaloupe and mini-watermelon.



| Year | Gross Sales Papaya | Lbs. Sold |
|------|--------------------|-----------|
| 2007 | \$11,000 | 13,750 |
| 2008 | \$75,000 | 100,000 |
| 2009 | \$124,000 | 165,333 |
| 2010 | \$51,000 | 68,000 |



Fertility Management: In this area, we rely exclusively on our extension agent for our education. With papaya, we plant 3 seedlings per hole to reduce the odds of having a female or male tree. We hope to end up with one hermaphrodite (self-pollinating) per hole. With the new crops mentioned above we will be working with Alton.

When we started the farm, our main soil amendment was fish bone meal and blood meal manufactured in Oregon. The amendments had to be transported to the west coast and then barged in to Oahu. Carl Tanaka, general manager of Island Commodities on Oahu, is a recycler of used cooking oil, fats, bones and fish collected from restaurants, food manufacturers and fish outlets and developed a way to turn this waste material into 100% certified organic soil amendments which are comparable in make up to the ones that we were purchasing from the mainland. Our cost for fish bone and blood meal was about \$1,600 to \$2,000 a ton. We now pay about \$ 225 per ton locally to Carl and are assisting to keep tons of raw material waste from entering already burdened landfills. The undesirable parts of fish that are caught in our waters now end up in our soil to grow more food for the world. Carl employs about 15 people and his story is an incredible one, good old American ingenuity.



We also use dolomite and crushed coral when it is available - gypsum when it's not. All soil amendments are applied as prescribed by soil sample reports generated from U.H.

Pest Management: We are bound by the organic farming rules which encompass the entire operation. Again we rely solely on Alton as to what to do when we encounter problems. We pretty much play a wait and see game. Problems arise and we see our extension agent as to what to do about it and then research the organic rules to make sure that we remain in compliance.

Besides deer we have had:

- Cut Worms (seasonal) - instead of using OMRI approved granules or sprays, we plant extra seedling trays and keep replacing damaged seedlings.
- Thrips, spider mites, aphids, mealy bug - we routinely spray kumulus (organic sulfur) and baking soda to combat the ongoing threat of powdery mildew and this seems to help with the mites and thrips. If the situation calls for it, M-Pede is the only insecticide that we have ever used.
- Nematodes - we try to rip and air out old fields as soon as possible and try to "rest" fields for at least 15 months before replanting.
- While M-Pede is OMRI approved, we only use it in specific areas when necessary. As an organic farm, we have been very lucky as far as pests go



(besides the deer!) so far and I guess we try to concentrate our efforts into growing the strongest, healthiest plants that can provide resistance to some pests on their own.

We have experimented with tropical sunn hemp in the past and plan on utilizing more sunn hemp on resting fields to help with nematodes as well as to try and fix nitrogen into the soil. If you come to our farm, you will see a cover crop of various grasses and weeds between rows of mature trees that are irrigated with micro-sprinklers. The idea behind the cover crop, besides helping keep moisture in the soil - is that if we keep all of the natural fauna that exists normally in the area, the world of insects and microorganisms both above and beneath the ground will work to keep the balance of nature the way it was before we started farming there. Although we currently have only one cash crop - we consider our farm diverse in flora as opposed to mono-cropping.



What does Sustainability mean to you? How did the next generation integrate into the family farm? The decision to farm was made by three generations of the Kaleikoa family that have direct roots to the homestead. Discussion involved:

1. Did we have the passion necessary to ensure success in all aspects of the enterprise?
2. The homestead includes a 5 acre house lot and 33 acres of agricultural land. Did family members and potential future beneficiaries of the homestead consider it to be simply an entitlement to be utilized at our discretion? We decided that it was much more. The homestead provided all of us an opportunity to accept the responsibility of stewardship of the land. We decided that we must take charge of resources we were so fortunate to have and allow it to provide us with the sustenance we needed while guiding our new way of life. Each of us felt that we held no advantage over any of the hundreds of other homesteaders and that if we could farm successfully, well then anyone could do it also.

3. We had to define success. We needed to be profitable in 3 years and the operation was set up to allow for additional family members who wanted to become a part of the farm. We keep no proprietary secrets and open our farm to all who want to learn or experience



farm life. To date we have had hundreds of people of all ages come to visit, tour and work on our farm as well as Senators Inouye and Akaka and a senate agricultural committee on a fact finding trip.

How do you price your products? Where do you market your products? How do you promote your products? How do you adapt production to meet the needs of clients?

During the down time caused by the disruption of the axis deer, we severed ties with our local produce distributor and are seeking ways to enter the local and Canadian markets on our own. We realize that there is a premium on organic produce outside of the island and seek prices based on the current high demand for organics. Whenever possible, we go to stores such as Whole Foods and talk to shelf stockers to find out what is needed. We open discussions with people wherever we go and have made quite a few Canadian contacts just through conversations and e-mail. The handful of homestead farmers on the island are a very close knit group and we talk all the time. We all have the same mindset that new opportunities for one is an opportunity for all of us. We rely heavily on each other sharing information on new equipment, farming techniques and will always promote our produce as a group. There is absolutely no competition among us, and instead a willingness to share the same goal of having homestead family farms becoming the economic engine of the island.

What does the future look like for your farm? The future is a little fuzzy right now as our papaya grows bigger each day with no firm market. We are planning trips to Canada to try and narrow our market options and hope to be sending out sample shipments by this winter. We still need to develop a logo and web site, but the fact that we have so many options just through conversations with people provides us with the confidence that we will enter the market in good shape and hope to be fully operational by the start of the summer of 2012. With the other farmers, we look to be shipping out 10,000 lbs of papaya and 5,000 lbs of squash and melons each week.

Mahalo nui loa to Rick Tamanaha for this interview.

Photos: R. Tamanaha and A. Arakaki



HOT TIP from Kaleikoa Farms

Don't ever do it for the money. Do what you are passionate about. It is your passion that will allow you to overcome the mistakes that you will undoubtedly make and barriers and obstacles that await. If you do what you are passionate about, the money will follow!

Oh, also for young adults on Moloka'i. If you want to farm and are going to a community college for a 2 year degree - get an accounting or business degree. We have the resources right here on the island to teach you all you need to know about agriculture.