

Farm Planning and Implementation

By Glenn I Teves, County Extension Agent, UH College of Tropical Agriculture and Human Resources

"Would you tell me, please, which way I ought to go from here? That depends a good deal on where you want to get to, said the Cat. I don't much care where-- said Alice. Then it doesn't matter which way you go, said the Cat--so long as I get SOMEWHERE, Alice added as an explanation. Oh, you're sure to do that, said the Cat, if you only walk long enough."

Alice in Wonderland, Chapter 7

Sooner or later, you will have to execute on your farm plan if you expect to farm in this lifetime, because the longer you wait, the harder it will be to start farming. As you age, your dream of farming will start to fade away in the sunset. Your mind will want to farm, but your body cannot deliver. I've seen in many times in Hoolehua.



Mother Lode of Watermelons – Jared Davis. Summer 2013

We put a lot of emphasis on farm planning for good reason. Developing a solid plan first, before you stick a seed in the ground, is the key. The production map is part of your farm plan, but in and of itself is not a complete plan. You can extrapolate a lot of information from it, such as labor needs and operational costs, but you will still need a road map for investing and expanding.

First, your farm plan will give you a good idea of time commitment, costs involved in farming, and projected returns. The more effort you put into planning, the more real and accurate the plan becomes. You can haphazardly slap together a plan, and that's what it becomes, and doesn't reflect reality. Most of the beginning farmers had a difficult time developing their production map, but as they started to understand it and got a good grasp of it, they were able to move forward with direction and purpose.

Making farming comfortable and enjoyable is critical. It cannot be a burden and a chore you try to avoid. Farming has to be like brushing your teeth, as I keep repeating. If you have to think about whether you should go out to weed or harvest, then you've already lost it. It has to be second nature and a part of your everyday schedule. I cannot overemphasize this point. Farming is an ethic. If you were raised in a family of homesteaders or farmers or ranchers, you have chores morning and evening. As my father used to say, "You eat more than one meal a day, don't you?" when we forgot to feed the pigs twice a day.

In farm planning, going through a process or system of decision making is the key. I call it due diligence. If you're gonna spend a lot of money on something, you want to make

sure it's the right thing and it's well thought out. It's better and less costly to make a mistake on paper than in the field, and nothing beats being there up close and dirty in the field to visualize what you're trying to do. I recently grabbed a chair, sat under a tree with my notepad, and wrote down and mapped out what I was going to do with 2 ½ acres of my farm right in front of me. When you're in the element, you can see and think more clearly. There are many ways of dissecting this blank sheet of paper and turning it into a plan, if not a map or diagram. This is a good starting point.



Sunrise Papaya

The trail has many paths, and there are many first steps but deciphering everything is important. First things first! Deciding on a crop is one, but before that, there's field layouts and bringing water to each plot. Assume nothing! Making sure there's water in the area is important, since you cannot grow a crop in Ho'olehua without water, except possibly in the rainy winter months. There are costs to the irrigation system, so this has to be itemized.

You will need to know the size of each field and the number of rows before you can know the size of your water system because it will affect the size of your submains. A 3/4" polypipe can only carry so much

water, and my experience tells me I can irrigate about 1500 feet of row with a certain kind of Ttape on 3/4" polypipe submain and I can irrigate a 1/5 acre of taro planted 2X6 feet apart with the same system.

With irrigation design, there's many ways to achieve the same thing, so cost is the most important factor. Some fittings, such as valves can get very expensive, so minimizing the amount of valves, and also the size of them is important. As the pipe size increases, the price increases exponentially. I remember Larry Jefts used to always try to find a 'recipe' for a crop. He could visit a farm and figure it out, and would also take the design one step further to make it more efficient.

For most crops, you can create a recipe, and it starts with designing all your fields the same size. Your needs will be very similar, including irrigation, lime, fertilizer, spacing, and number of plants. You just have to get to the point of creating this recipe. This is what the production map is supposed to get you to. Irrigation is expensive and I've been experimenting with reusable irrigation. It's much more expensive, but doesn't clog as easily for many crops, and the cost can be amortized over a longer period of time. It's also kinder to the environment.

In Hoolehua, you have to work around the wind, because you can't tame it or control it. Creating increments protected with windbreaks is an important step, and like standardizing your fields, you can standardize your windbreaks. Whether to space it 30 or 40 feet between windbreaks will depend on the crop and also wind intensity. Some areas around Hoolehua are windier than others, and it's related to the terrain upwind from your farm. If you have a gully upwind and it's pointed right at your farm, this will create a venturi effect that will accelerate wind speeds into your farm.

However, a breeze constantly blowing through your farm is a must to regulate temperatures and cool plants down on a hot day, but gusty winds over 25 mph can uproot seedlings and snap stems. High wind can affect pollination, and since flowers turn into fruits, you can end up with misshapen, unsalable fruits.

Planning is one thing, while implementing or executing is another. Developing increments not only makes it easier to plant once you develop a recipe, but also helps to estimate costs, project harvests and returns, and simplify your production system. Keeping things simple makes farming simple, more manageable, and much more fun. Sooner or later, you have to execute on your plan, otherwise it just becomes another exercise in futility with no fruits of your labor to harvest. It's just another would have, could have, should have, but didn't. Plan for something!

Making Keiki

Hui Laulima Cooperative was a production cooperative composed of Hoolehua homestead farmers and formed to grow taro. By pooling their farm equipment, they were able to farm a large homestead. They were a little ahead of their time, as the price for taro was only 50 cents a pound, and their equipment was old and kept breaking down. Today, the price is \$1.50-2 per pound, and the Hoolehua Homesteaders tractor service is a result of their efforts in getting better equipment to farm the homesteads on a large scale.



Another limiting factor was getting enough taro huli to farm on a large scale. How do you create enough huli to cover an acre or more? The answer is one at a time! I cannot forget the late Leiff Bush (below; wagon load of huli in the background), who wanted to find out which taro varieties grew best in Hoolehua. He started by helping out at the annual Molokai Taro Field Day, producing poi and kulolo from all of the Hawaiian taro varieties, and by growing all of them at his farm. He selected about

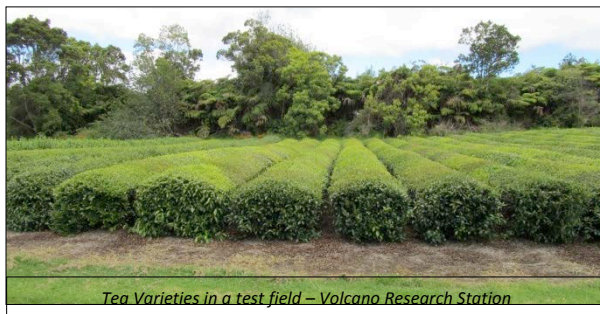
four varieties that he thought were the best, and started increasing huli. He took a

special liking to Eleele naioea, due to its dark purple color. Starting with four huli of this variety, he continually planted and dug them up, only to return the huli and corm pieces in the ground in a couple of months.

In about 3½ years, Hui Laulima had propagated enough huli for 35 acres!!! This is phenomenal and an indication of what can happen when homesteaders focus their energies. Today, farmers will ask you for 50 or 100 huli as if they come out of thin air, and I usually share this story with them. After screening all the different varieties, he chose Maui Lehua, Mana ke'oke'o, Piko kea, and Eleele naioea as his main varieties. Today, many of the farmers who grow these varieties in Hoolehua can trace their huli back to Leiff Bush.

The Future is in the Past

“I ka wā ma mua, ka wā ma hope” This phrase emphasizes the importance of adhering to your cultural roots to find strength and direction. When looking at the crops many of us levitate to, many are traditional crops. There's a reason for this. Maybe we're hardwired to return to our roots whenever possible, or this may be a comfort zone, a place we feel grounded when we're there. Or maybe it's because we crave these foods on a regular basis. Food choices keep changing, and are influenced by trends, health needs, wants, and market-driven forces as well. A new craze is juicing, especially green juices, and you could be feeding into this craze or even making the finished product.



Tea Varieties in a test field – Volcano Research Station

Our cultural crops can be a starting point, but it might be just one stop in your destination as you create your farm. I grow some of our traditional crops such as taro and banana as my production base to create a predictable cash flow, but I also try to test many new and exciting crops for the seasons. I constantly try to identify what

else I could be growing. My new crops this spring were papaya, spinach, kale, sesame, chard, red lettuces, red and purple carrots, and purple cauliflowers. Building upon your portfolio of crops is only one strategy in farming and marketing. When you have a lot of crops to offer your markets, you become more valuable to them.

Laulima - Working Together

This trait seems to be more prevalent in rural communities in Hawaii, and especially on the homestead on Molokai, where there's openness and a willingness to work together for a common goal. I call this ***interdependence***, knowing that we need each other to survive on this little island, and that we feel good when we do this. This could also be

because many of the families have strong bonds that go back as far as five generations or more.



There are attempts in the business world to emulate interdependence in order to capitalize on this trait found more in third-world societies, where many are forced to work together in order to survive. In our capitalist world today, this is a rare trait since independent action is rewarded so we have a tendency to move to the beat of our own drum, but interdependence has many advantages on a small island such as Molokai.

Only when you're economically stable are you able to help others, and there are many in need of help with challenges including drugs and abuse, a lack of education, and a lack of role models. We need to be in the world, but not of the world trying to keep up with

the Jones's. We need our own role models, because it seems like the outside world can't provide them, so it's incumbent on those who have the knowledge to share it if someone's willing to learn. My grandfather used to tell me, "You can lead a horse to water, but you cannot make him drink." We can provide the opportunities, but it's up to you whether you drink or not.

Growing Pains

We cannot expect the homestead community to support agriculture unconditionally after they regularly eat dust generated by our farming activities, and live with loud diesel tractors and exhaust that comes with it. There are many homesteaders who support the idea of sub-dividing their homesteads for their children. This is a noble idea, and I fully understand, but this also can lead to urbanization if not done in a systematic manner. The non-farmers already outnumber the farmers, and they may be adamant about subdividing their agricultural lots since they're not farming, swinging the pendulum in their favor. Although they sit on agricultural lots, the powers that be are not holding them accountable to their Hawaiian Home Lands agreement to "cultivate your land on your own behalf."

It starts when those who occupy these new lots downwind from our farms don't understand farming. This has already happened in other farm communities statewide, and even in Hoolehua, and has stifled and even ended farming efforts. Complaints about tractor noise early in the morning, the smell of diesel, and red dust clouds become commonplace, frustrating farmers and affecting their motivation to farm. It's

easy for the Hoolehua community to be urbanized in the future just by allowing houses to be built arbitrarily.

Many plans have been developed for Hoolehua proposing areas with smaller lots near the high school, and larger lots as you move away from this area, with Mahana reserved for large scale agricultural production. The key is to preserve areas for crop production, but also allow for smaller lots of ½-1 acre for subsistence homesteading. Just think - one surrendered 35-acre lot could create about 60 ½-acre lots similar to the area near Lanikeha. *“If you fail to plan, you plan to fail” and “things don’t happen on their own.”*

Charity Begins at Home

I remember my Mom reminding us that ‘charity begins at home’. You can help anyone, as long as you take care of your responsibilities at home first. If you can’t take care of yourself, how can you expect to help anyone else?

One of the biggest untapped opportunities for small farmers is the creation of a Farmer’s Market in our farming community. This strategy addresses many key issues, one of which is to make fresh, healthy fruits and vegetables available for our neighbors, but is also about gaining support for agriculture in our community. Anyone who grows even a little garden can take advantage of the opportunity to make a little extra money.



Farmers Market & Family Day at Intervale Farm - Vermont

In order for farmer markets to survive, a critical mass of reliable farmers are required who will be there every week to sell their products. One or two farmers are not going to attract a crowd. There are strategies on how to create a crowd by having farmers clustered around each other to create a mob.

Other benefits include gaining influence in our community to the point where we can provide direction and fill leadership roles in the community. By producing food for your community, you become a force for positive change. Farmers can become leaders if they become the major producers of their community’s fresh food. At the same time, the Farmer’s Market must be a real farmer’s market, and not some flea market selling Made in China goods and reselling produce from Honolulu and the mainland.

Some people have a real knack for selling, with fancy signage, interesting baskets to display produce, and also produce that’s portioned to meets the needs of buyers. In one of the beginning farmer classes, we had participants bring containers to sell produce in, and someone weaved a beautiful coconut basket. What a great idea, utilizing a sustainable resource! And you can even sell the basket with the produce in it!

Per-Unit Cost Strategies in Marketing

In pricing, the per-unit cost is very important and is related to what your customers are willing to, and can afford to pay. Last summer, I saw a store trying to sell a single bitter melon for \$9! That won't sell. I sold grape tomatoes for \$3 a pound to one of the stores, and they expected to sell it for \$6 a pound, so I told the produce guys to make 1/2 pound bags and sell them for \$3 each, or they could even sell it for \$3.25 to cover additional handling and bagging. But no one is gonna pay \$6 for a pound of tomatoes!?!? This comes from knowing what people are willing to pay for their limited dollar, especially on Molokai where many are struggling to survive and feed their family.



Related to this is the size of the product. I brought an unreal variety of Chinese kabocha from Taiwan (left). One plant produced 65 pumpkins, and most of them ranged from 8-12 pounds each! If I tried to sell it for 50 cents a pound, the stores will sell it for \$1 a pound, and no one was going to pay \$8-12 for a pumpkin. What about quartering the large ones and halving the smaller ones?

Sometimes you gotta draw the picture for them because it's in your best interest to move your product. Innovation is hard to come by and copy cats are a dime a dozen. But what about selling it directly to the end user? You could sell it a little higher than wholesale, but lower than retail and end up ahead of the game, and everyone would be happy. Charity begins at home and selling close to home is a start.

Getting Involved

There are so many things happening on our little island, but less people to be involved in all the important meetings. We need to be involved in issues that affect our future, our families, and our farming. You may have to pick and choose which issues to get involved in, or you could be attending a meeting every night! I usually call the meeting sponsors when I see the poster and find out what the meeting is really about, and if I cannot attend, I can still provide testimony via email or faxing. If we don't get involved, we have to accept the outcome of these meetings.

Well, gotogonow. Keep focusing on farming. More next time...