

Molokai Homestead Gardening Newsletter

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Don't judge each day by the harvest you reap, but by the seeds that you plant.

Robert Louis Stevenson

Summer will be here in a month, although it's really difficult to tell with this erratic weather. The plants can't tell if they're coming or going, or whether it's spring or summer, so one option is to plant for both seasons, which is what I did this year.



Two varieties of tropical or moschata squash, what we call Filipino pumpkin on Molokai. We call everything pumpkin on Molokai but this is squash. Squash is called the 'Eggs of the Earth' and is excellent for storing so you always have food available when you're hungry.

This was one of the driest and hottest winter/springs in memory. Temperatures reached close to 90 degrees, and the ground was cracking! The squash loved it, but the taro was wilting due to drip irrigation clogging from all the tilapia in the Molokai Irrigation System, not to mention the fishy fragrance, but this is free fertilizer so you have to take the good with the bad sometimes. Then it started to rain. Slow moving storm systems out of the south and west sat on Ho'olehua, dumping buckets of water causing flooding and heavy run-off, losing precious soil to our neighbors downhill from us. This is when we have to keep our ground covered either with

vegetation or compost, but what about our dirt roads? This is what happens.



April Showers Bring Flooding, then May flowers.

One of the biggest challenges in spring gardening are the weeds, lots of them, so the key is to only plant what you can manage, and this means keeping the weeds under control, not letting it get out of hand, and nipping them at the bud. Gardening should be fun, and when it's not, it becomes drudgery, and a chore you try to avoid.



A triangle-shaped hoe called a Rogue made from a recycled farm disk. The blade is sharpened on three sides.

Having the right garden tools and making sure they're sharpened and well cared for is important, and they're a good investment if

you're serious about growing food for your family.



Guinea grass moving in on the tomatoes.

Rain can bring all kinds of other problems such as slugs, which I'll discuss later, but a lot of rain at one time can also crack your tomatoes. Tomato roots suck up so much water at one time so fruits expand and under some conditions, such as a hot sunny day after the rain that they essentially burst the tomato open.



A new tomato variety, Black Sand Beach with very firm fruit that will turn yellow with green stripes as it matures.

This is one example is this tomato called, but it didn't explode, and you can still eat it if it doesn't get sour from the wounds. This can also happen to heading vegetables such as head cabbage and won bok. But the weather is still great for planting all kinds

of goodies before the summer heat bears down on us.

Tomato doesn't like rain and is usually planted in the spring, and will fruit during summer months. Some varieties can withstand rainy conditions better than others, and this is where field trials help us to identify which varieties do better in Ho'olehua.

We can grow great tasting tomatoes in Ho'olehua and Kalamaula due to our hot days, cool nights, and also our soil, but Kona conditions can cause problems such as flower drop and blossom end rot causing a blackening on the bottom of the fruit.

I like to grow the grape-type tomatoes because they command a higher price, but they also require more work to harvest. They're perfect for salads because you don't have to cut them up. Tomatoes taste better if they aren't refrigerated. Let them ripen fully on the kitchen table and eat them when they're at their peak of ripeness.



Two grape tomato varieties, Sugary (red) and Aria (yellow).

When winter and spring are colder than normal, they can stimulate some crops to flower that don't usually flower here. Last winter reached the low 50's for more than a few weeks, initiating flowering of crops that prefer colder than normal weather. This would include some stone fruits such as peaches, and also blueberries. Cole crops such as broccoli and cauliflower also do better in cooler weather.



Low-chill Blueberries are adapted to the colder areas of Hawaii such as Waimea on the Big Island, and Kula on Maui, but will flower on Molokai like these in 2 gal. pots

On the other side of the spectrum, some cold season vegetables have been developed to withstand hot conditions so they can be grown over a longer period of the year, making them more available year-round. Chinese Cabbage or Won Bok is one of the most important vegetables in Asia, but some areas such as Taiwan, South China, Vietnam, and Southern Thailand are too hot in summer to grow them.



The heat-tolerant 'Green Sun' is a short stocky Won Bok that tastes more like sweet lettuce without a mustard taste.

Vegetable breeders in Taiwan have developed heat-tolerant Won Bok that do well in Hoolehua. This is a great lettuce substitute for preparing dishes such as Chinese Chicken Salad, and also goes well in soups and saimin.

Lettuce is king of the salads and can be eaten at any size from seedling to full-sized heads. Developing varieties that can withstand our hot tropical conditions is the

wave of the future with climate change upon us. In the tropics, small day-night temperature differential makes it difficult for many lettuce varieties to survive our hot summers, and some farmers are very concerned, especially when growing full-sized lettuce. In summer Kona weather, day temperatures can reach 90 degrees while night temperatures can be in the 80's. Many Mediterranean crops such as lettuce prefer cool nights in the low 60's or high 50's and will 'crash' when nights get too warm.



Speckled Manoa Leopard lettuce is crunchy from its Manoa parent, and can handle some heat, but all lettuce will succumb to our 90 degree summers.

For lettuce mixes, harvesting in a month after direct sowing can help avoid this problem because it gets worse as lettuce matures and starts to head. In a garden setting, using a screen over the lettuce can help to prevent these problems, including bitterness, tip burn, and early bolting.



Hamburger Curry Lettuce burrito is ono and refreshing.

It's great to find new ways of incorporating lettuce into your diet for its fiber to promote regularity. A hamburger curry wrap with lettuce pairs well with home-made namasu.

In China, lettuce is even cooked and they have special varieties for this, such as pointed lettuce that looks like spears. In some cultures, the lettuce core is eaten and special varieties have also been developed for this purpose. These types are called Celtuce and lettuce cores are compared to asparagus in taste.



Lomi Salmon, Limu Poke, and Poi all in one and ready to eat.

It's fun to find new ways of eating old favorites and I happened to bump into one in Hilo and thought I'd found buried treasure. Putting a spin on food we regularly eat or want to eat more regularly makes eating fun.



Beef Tomato, a local favorite and always in season.

Having a luau in your hand is definitely something new, and soon we'll have some one adding laulau on top of this. When you have a combination of crops maturing at the same time, you want to incorporate them into a dish you like to eat.

I don't have a lot of dishes for sweet peppers other than mixing it into pickled onion or a green salad, and some people complain of gas when eating sweet peppers raw. A favorite dish and one I like to eat more often is Beef Tomato. There are a lot of variations on this theme, but incorporating chopped steak, onions, tomato, and peppers is one of my favorites, and it's very nutritious.

I recently visited to one of my daughters and her family who live in New York and it's always interesting to see what kinds of produce are available in their part of the world. Since New York is the REAL melting pot, it's not unusual to see produce that's very familiar to us. Guava, papaya, sweet potato, lychee, dragon fruit, olena, ginger, breadfruit, mango, and taro are just some of the things there, not to mention poke and all variations of saimin, what they call ramen.



White Guava from Mexico. Looks like from some of our backyards or in the bushes nearby.

There are many things we grow that we don't eat. In many part of the world, many cultures eat shoots, flowers, and even seeds of many crops. I like to eat chayote or pipinella shoots, and also sweet potato

shoots in a pickle with onions and cuttle fish, and goes great with poi.

Old timers in Hawaii used to eat Popolo leaves as a vegetable. Popolo or *Solanum nodiflorum* is related to tomato, potato, and eggplant, and I remember Tutu Mary Pukui writing about eating this as a cooked salad when growing up in Ka'u. Some would consider this famine food when you don't have anything else to eat, but it's good to get used to it now before hard times force us to eat it. Closely related plants are also eaten in Africa.

Leaves from a Filipino hot pepper, *Siling Labuyo* are also eaten in Chicken Papaya, a favorite dish on Molokai and our version of chicken soup. So there's much more we can eat that grows around us if we need to so we don't starve. This is what food security is all about, making due with what you have and making the best of hard times.



Banana flower for \$2.49 a pound.

A fruit that's eaten by the Filipino community on Molokai, and no one else on the island it seems, is banana flower. They prefer a certain variety of flower from a cooking variety called *Dippig* or *Saba* and cooked in a soup. I found it in a New York market, and it was more expensive than buying bananas!

Summer can be a time of over-production, even in the garden or the backyard. Mango, papaya, banana, and even avocado can start coming out of your ears, and it's good to come up with other tantalizing ways of utilizing this bounty.

If you have too many lemons, you make lemonade, but when it comes to banana or even papaya, the possibilities are endless. Banana biscuits can come in many variations incorporating yogurt, nuts, raisins, dried fruit, cinnamon, and many other flavor enhancers. Apple banana is a favorite when make pastries and desserts, such as banana cream pie, but making this can burn a hole in your pocket.



Banana biscuits can come in many variations, and all kinds of goodies can be added.

Rat Lung Worm Alert

With the rainy weather comes slugs and snails, and some of them can be a very serious health hazard if they get into your vegetables eaten fresh such as lettuce and other greens.

Recently in Hana, Maui, there have been cases of **Rat Lung Worm**, a microscopic nematode that causes a neurological disorder in humans called **Eosinophilic Meningitis**. This disorder affects people differently, from a headache to severe paralysis and even death. The Rat Lung Worm has a complex life cycle requiring growth stages both in a rat and a slug in

order to develop the stage that infects humans.

In most instances, this disease has been spread by slugs in fresh produce eaten raw, and grown in the area, especially in home gardens. The Rat Lung Worm lives in the lungs of rats and is shed in its feces. Slugs usually pick up the Rat Lung Worm by consuming or coming in contact with rat feces.



Slugs eating out the bottom of a taro corm to create a comfortable home for them.

There many ways to prevent this disease from coming in contact with your food. Controlling and keeping slugs and snails away from your garden vegetables eaten raw, including lettuce, mustards, spinach, and others is the key. Cooking vegetables will kill the rat lung worm. Washing all produce outdoors with clean water is important to prevent cross-contamination in the kitchen. Properly washing and rinsing before eating cannot be overemphasized.

Slugs and snails are nocturnal and are in higher populations and more mobile in the wetter areas of the island. In drier areas, they will start to migrate at the first rain and move on moist nights. Checking gardens at night in wet or moist weather and physically removing them can help to keep populations low.

Do not handle or touch them, and neoprene gloves are recommended as added

protection. Placing boards, such as 1 foot squares of plywood on the ground near the garden will create houses for them and is a good way to monitor and remove them from the area. Baits can be used under boards to assure that non-target organisms such as birds, dogs, and cats are not harmed.

Baits used to control slugs and snails include active ingredients Sulfur, Copper, Iron Phosphate, Methiocarb, and Methaldehyde. Some baits are organic and may not kill slugs on contact. As with all pesticides, please read and follow the label. We may be living in paradise, but it's also paradise for diseases and other organisms.

For more information on the Rat Lung Worm, you can download the following free publications from the University of Hawaii College of Tropical Agriculture and Human Resources website. Just press on the link.

CTAHR Farm Food Safety, Good Agricultural Practices
<http://manoa.hawaii.edu/ctahr/farmfoodsafety/rat-lungworm/>

Best On-Farm Food Safety Practices:
<https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-39.pdf>

Student and Food Safety: Best Practices for Hawai'i School Gardens
<https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-45.pdf>

Wash Fresh Fruits and Vegetables Before Eating!
<https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-35.pdf>

Summer Garden Suggestions

There are many vegetable crops that seem to thrive in summer better than others, and here are some of those:

Tomato, Eggplant, Bittermelon, Peppers, Water melon, Eggplant, Green Onion, Flat Leaf Parsley, Okra, Wing Beans, Peanuts, Soy Beans, Sweet Corn, Squash, Lima

Beans, Long Beans, Pak Choy, Taro Leaf, Chayote, Sweet Potato leaf, Beets, Radish, Snap Peas, Carrots, and Bush Beans. I know there must be others.



A luscious Black Sand Beach tomato after a spring rain

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Well, that’s it for this quarter. My new mantra is ‘Grow Something, Anything you can Eat’. If you need help, just drop me a line. Happy Planting and a Happier Harvesting. If you don’t plant, you cannot harvest. And have a long, hot, safe, and productive summer...

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