

Go Farm Right Now

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Wisdom starts with wonder – Socrates

I recently attended the 2019 Go Farm Alumni Conference on Saturday, October 12, and it was a great opportunity to meet new friends and reconnect with old acquaintances at my high school alma mater on the Kamehameha Kapalama campus.



A few of the 350+ Go Farm graduates, present participants, staff, and resource people

I've been involved in Go Farm since its inception and served as a resource and presenter at many workshops on the different islands, and it's hard to imagine that over 350 residents have now gone through the program and are a part of the Go Farm family.

I was able to share and receive advice, and also sit on a panel of old friends, the kupuna of the group, on a statewide panel addressing Industry Wide Collaboration. I've never thought of myself as a kupuna, but when I look back it just happened without me fully realizing it. I think it started when more

people started calling me 'uncle' and asking for advice, which is what kupuna are supposed to do; share knowledge and wisdom from decades of experience, both successes and mistakes.

It was great to interact with guys I've known for a long time although we rarely get to see each other, and they know farming upfront and personal.

Bobby Pahia is a taro farmer on Maui and we were in 4-H together when we were young. We raised horses along with over 350 members of the Oahu 4-H Horsemanship Program and competed in events with other 4-H clubs all over the island, showing off our skills in gymkhana or timed events such as relay racing, barrel racing, pole bending, and rescue racing.

Bobby sits on the Mahi Pono Community Board assisting in the development of Maui's central plains and is also the president of one of the Maui Farmer's Union United chapters.

Jim Cain is a Waipio Valley taro farmer and produces poi for island sales every Thursday as he has done for decades. He has been involved in addressing agricultural community issues in Waipio such as flood control and land

management, managed a Beginning Farmer Program, and was one of the authors of a book on marketing Big Island agricultural products.



A state-wide panel on Industry Wide Collaboration included (L-R) Jim Cain, Johnny Gordines, myself, and Bobby Pahia

We both sat of the State Taro Security and Purity Task Force where he was the chair and I was the vice chair. He was also involved in the Go Farm program as a farm program coordinator.

Johnny Gordines is from Kauai and grows ornamentals such as heliconia, ginger, and closely related species for local sales, and also gift boxes through the internet. He's the president of the Kauai Farm Bureau, and the former farm manager of the UH CTAHR Kauai Research Station in Wailua. As a research station manager, you become very familiar with many crops up close by managing field trials.

All of these guys have decades of hands-on experience and wisdom that comes from getting down and dirty in the aina. This brief introduction does little to highlight their contributions to Hawaii agriculture.

Farming is a very difficult profession with so much to know in order to succeed and some of it has nothing to do with agriculture, like running a business. If I had to find a word to describe the challenges of operating a farm, it would be 'tough'.

I read somewhere that farming is 'not for the faint of heart. There are so many moving parts, and you have to take a holistic approach to what's happening around you. What you don't know and can't see can really hurt you and your bottom line. You have to constantly build proficiencies or find friends who can cover your weaknesses.

The challenges of agriculture are well documented and include:

- Uncertainty of Income
- Risk of Losing Investment
- Long Hours and Hard Work
- Safety Concerns
- High Level of Stress

I'm sure I'm leaving something out, probably spending more time with family unless they're an active part of the farm, but they also need a break from the action.

We just had 50 mph winds overnight which damaged my 250 foot row of tomatoes on trellises, and also a 125 foot row of peppers. Will you be ready for this kind of disaster, and can you sustain the loss without skipping a step?



Are you ready for this Hawk or Sphinx Moth eating up your tomato plants and fruits?

Agriculture knowledge is always growing, both above and below ground. Another area is the philosophy or zen of agriculture. Everyone wants to describe their kind of agriculture and we can spend a lot of time talking about it until the cows come home, but you still have to sell your product every week for as long as you can and make money from it.

I really had to focus on what kind of advice to provide new farmers while not discouraging them to continue. Lifting them up and keeping it light-hearted is great, but you want them to look at the issues from many angles. You want to inject a combination of enthusiasm and reality that will hopefully rub off on them.

How much can you learn in 1-2 years? And are you ready to start a farm after graduating from this program? The program has a strong front end starting with agribusiness management and the economics of agriculture. This is so important because farming is a business first, and an ethic and way of life second.

I recently spoke with a Molokai homesteader who presently works in Honolulu. She mentioned that her daughter is presently attending college in Oregon majoring in business management. She will return home soon and attend UH Manoa or Hilo in agriculture because she believes this is the future for Molokai. I applauded her efforts in guiding her daughter as she also has a background in business management.

Profitability is front and center in a business and I don't know how many farms try to undercut the other to gain market access to the point where all of them are not making a profit, and I saw this with microgreens on the Big Island targeting the Kona Coast hotels.

If you do a lot of 'homework' such as farming while attending the program, and developing strategies like any other business, you can get more out of it. Apply what you learn in real time or learning while doing is the best way to absorb agricultural knowledge.

I was born into a ranching family in Manoa Valley, of all places, and everything that comes with it; the endless work, the long hours, the total commitment. Time wasn't important and the work sometimes didn't end when the sun went down.

I came to this stark realization when asked at the conference by Janel Yamamoto, moderator of our session and Go Farm Director how many years I've been involved in agriculture. I've

never thought about that and was caught off guard by the question.



Nora Rodli, Go Farm Coordinator moderating a discussion and panel on Redefining Sustainability.

Even as a toddler, I learned by watching my grandfather and father. You learn by osmosis, and then one day you have to take over that function. You watch when the veterinarian comes to care for a sick animal because the next time this happens you will have to take care of it even if it means sewing up a wound or wrapping a cast.

New farmers need mentors, ones who will teach them the zen of farming, the idiosyncrasies, the mistakes and the successes, the highlights and low times. It's a rare animal who can teach you more than how to weed over and over again. You need to understand the whole system so you can duplicate it on your own, while adding your own twist on things.

This is probably one of the shortcomings of many farm training programs because learning from other's mistakes is much cheaper than learning from you own. Sometimes the whole system of farming is a bit fuzzy, but when you learn from

someone who has done it, they set a lot of the pieces in place for you to copy and refine.

Where do you start in discussing farming in Hawaii with a new farmer? It would probably start with 'farming is a business' and at the end of the day, you have to make ends meet and pay your bills with something left in your pocket. You do this by coming up with efficiencies, doing it fast because time is your enemy and money is your friend.

New farmers want answers to questions where there's no one right answer. It depends, because you have all these variables related to production and marketing. How many acres is a right size for a farm? It depends... What crop should I grow? It depends... What should I invest in? It depends...

Weeds are a major challenge in Hawaii, especially after a heavy rain in the middle of summer when the weeds can grow overnight. At the same time, you cannot spend all your time weeding. What strategies can you employ to keep weeds in check? Mulch, weed mats, plastic mulch, row covers, screen houses, flammers?

Jokingly, I mentioned to attendees that a farm without weeds is the sign of a sick mind, but there's some truth to this. You cannot weed all day and not take care of other important aspects of the farm. How many weeds can you live with and not impact on crop yield and quality? It's about not only working hard but also farming smart. Being efficient makes

you money on the production as well as the marketing side.

Weeds harbor diseases and insects so this needs to be cranked into the equation. The time to weed is the time to weed, not tomorrow or the next day because now the job just got more difficult and will require more effort because the weeds just got larger. When you barely see the white threads is when you attack.

But it also has to do with time management and allocating time to what is the most important at the moment. The other side of the coin is that some weeds may be beneficial by diversifying the microbes in your biome, they fight with each other and everyone is in check without one microbe getting out of hand and creating an epidemic.

You can do wonders if you put your mind to it. There's a saying, "If you never try to do what you can't do, you will not know what you can do."

I remember at a strategic planning meeting where the facilitator was trying to impress upon us that you have limitations. This really grated on me because I've always felt you can do anything; it just comes down to how much energy you want to put into it. There are no boundaries, only ones you impose on yourself, but just know there are consequences for the wrong actions!

This opens the door to thinking outside the box in so many areas of the farm

business. There are so many opportunities in laying out the farm and integrating different concepts and crops as well as injecting a lot of innovation in the marketing and possibly the value-added area.



A fun-filled after-lunch waker-upper by Dr. Kia Frank, UH microbiologist, with a new take on our local microbiome, Hawaiian-style.

Farmers have to be resilient, and be able to bounce back after a setback. A tough farmer is the one who gets up fast after falling down. Easier said than done, but at the same time you have to make farming easy and enjoyable. If everything is a struggle, it ain't going to happen.

If you have to drive an hour or more to attend a Go Farm class, you really have to be committed in doing this for each meeting. This is real and I'm amazed at some of the students on the Big Island driving 70 miles from Ka'u to Honoka'a for a night class and a work day the next. I don't think I could sustain that kind of commitment; this is what you call a real commitment and not a passing fancy.

For me, driving from Kona Airport up Palani Road to Waimea then to

Honokaa to teach a Go Farm class is something I have to psych myself up for and be intensely focused when driving because that's a deadly road; one slip up and it's all over. But this is the kind of commitment and risk new farmers have to take on.

The same goes when you have to run all over Oahu, from your home to your farm to work or to school, getting stuck in traffic. Everything takes planning to maneuver through all the obstacles and having a contingency plan, working around the rain and tunnel closures.



The Leatherleaf Slug, a confirmed carrier of the Rat Lung Worm parasite on Molokai. New farmers must be up-to-date on the Food Safety Modernization Act. This is a moving target and will get more stringent so hop on the Food Safety train now by signing up for training programs near you. What you don't know can really hurt you.

You have to anticipate challenges and changes in direction, the what-ifs and have some tools in your back pocket to deal with it. Otherwise, something will set you back and get caught off guard because you didn't see it coming. Have all the what-ifs covered by at least in Plan B or C. There needs to be a balance between making money and living a fulfilling life. If you work 18 hours

a day and make a lot of money but you're not happy, all is for naught. Have time to laugh at yourself and how you got into some compromising situations, as well as enjoying life with family and friends.

Developing a model of the kind of farming you want to do, and the farm you want to create is critical. Is it full time, part time, a one-family member farming while the other works for the medical benefits, or is it a weekend warrior? There needs to be a book on the steps to successful farming in Hawaii with a key so you can follow that key, or develop your own key and plan of attack.

You need special friends, especially confidantes you can bounce crazy ideas off of, and that's why creating Go Farm cohorts allows new farmers at the same level of evolution in knowledge and agribusiness skills to hash things out and give each other sound advice, even if it means telling them it's a really stupid idea, not just trying to make them feel good while doing nothing for their progression. Although farmers usually have time to talk story with other farmers, you have to make the time because they may have the answer to a problem you're dealing with at the moment.

Networking exercises at the conference really helped to cultivate relationships with someone you met for the first time especially when you have so much in common, and building upon this can lead to long-term collaboration. These

partnerships can extend to moving crops from the farm to the market, selling together, or supporting the development of new products.

There seems to be a strong movement toward organic and sustainable agriculture production. However, you need to have an answer or solution to every challenge you take on. You cannot tie one arm behind your back and expect to get the same things done that you did when you had two hands to work with.

You can strive to be sustainable but is it a realistic recipe for success at this time? We want to do the right thing, but at what cost? However, everyone should be transitioning in the direction of sustainability in your farming system. Otherwise, you're probably creating a lot of waste that ends up in the landfill, adding to air and water pollution on our little islands.



Banana is getting very difficult to grow with rampant Banana Bunchy Top Virus infestations. Do you have innovations that can overcome this challenge, such as a new system of growing them? Brazilian Banana 'Santa Catarina Prata', also known as Hawaiian Apple Banana.

Very few farmers have been able to transition from production to value-added creation because now you have two full-time jobs, and this came out in one of the sessions. You can support another operation who can take your off-grade produce to create a finished product, produce you might have thrown away.

When I was farming on Oahu in the mid-1970's we used to give our off-grade cucumbers to restaurants in Waipahu and Wahiawa in exchange for free meals, something we would have otherwise thrown away. We just called them ahead of time that we're coming and they would prepare custom plates of Korean, Chinese, Japanese, or any kind of food. This is another form of value-adding, but to your stomach?!?!

You have to be real, and this means having the right balance of idealism and realism. You need both, and too much of one might be the kiss of death for the farm and your farm business.

For everything, there is a season, and there's some times of the year when you don't want to grow certain crops or even combinations of crops because it's a recipe for disaster. Growing a whole bunch of mustards in summer is just feeding webworms. Diversity cultivates resilience.

Combinations of crops in proximity to each other can flare up some insects such as planting mustards, beans, and tomatoes when the Southern Green

Stink Bug is rampant, because to them this is a luau.

Growing mature lettuce during summer months will produce tip burn and milky tasting lettuce unless you're willing to modify the environment, such as using misters in addition to drip lines, and placing shade screen over the row to decrease light intensity and temperatures. In this way you might be the only show in town with tasty lettuce.



Tip burn on lettuce is caused by many factors, including high temperatures, water stress, high nitrogen, low calcium, rapid growth, or a combination of factors.

This is where research comes in and the research is not keeping up with the direction we're moving in Hawaii agriculture. Farmers need to understand the science behind everything they do, and if it's not available they need to generate the answers themselves. Conducting research and making money is not always the same thing, but it could be. Conducting research on your farm can keep you ahead of the pack, and on the cutting edge.

Farming is equal parts art and science. You can know how to plant, but will you be able to diagnose disease and pest

problems as soon as they appear so you can get a handle on it and nip in the bud? Diagnostic skills, being able to troubleshoot field problems is one of the most important skills a farmer can have.

Superimpose climate change on all of this and now you have the perfect storm, and it can make farming very difficult if you don't anticipate it. Hotter weather speeds up the life cycle of insects, the degree-days, and the lack of trade winds especially during the rainy season increases fungal and bacterial spread because plants are wet for most of the morning.

Finding the right crop and right varieties take diligence instead of just following the crowd. If everyone goes right, maybe you should go left. Field testing to identify the right varieties in the worst possible climate is important and can give you the added edge in the marketplace because adaptability of the crop to YOUR farm is so important.

We've seen this on Molokai in the proliferation of black spot on papaya and leaf blight on taro. Colder winters with overcast skies will slow the growth of many fruits and vegetables, and some species can become weak in these conditions. And a sudden change in weather can bring about a whole new set of challenges.

Tropical species are especially impacted climate when the weather gets hotter or colder since they like it somewhere in the middle close to the equator. These changes can substantially increase days

to harvest and can adversely impact on quality and quantity of your product. This is the new normal and how are you going to adjust to this, and anticipate harvest times to coordinate market delivery?



Gourmet sweet peppers can command up to \$20/pound in high end markets. Clockwise from center: Cilli (Filipino heirloom), Shishito (Japanese peppers), Golden Greek (Salonika Greek peppers), Canoncito (New Mexico native heirloom) and Italian pepper mix (Wild Garden Seed varieties)

How much money should you invest? It depends on how much money you want to throw into your venture. Start small and take forever to ramp up or get investors to blow things up? It comes down to how sure you are of yourself, and how much risk you want to take on.

Many of us are risk averse, and don't want to put our life savings on the line. Some people don't want to manage other people so they will build their farm to the size of their family. It's critical in piecing everything together to a scale you can start with and grow in.

The worst thing that can happen is if you start too big and are unable to manage the system and do a good job. It's a real

dilemma in determining how large to start with and still be able to grow when you're ready. But if you start too small and don't have the infrastructure, including farm equipment, it may take too long to ramp up. It's the yin and yang of farming

Also, you cannot depend on a worker to be totally committed to the level you expect them to be unless they're part of the bigger picture and has a vested interest in the operation. A couple of businesses featured in breakout sessions also alluded to spending a lot of money but not turning a profit yet.

One of them had a model of controlling production, vertical integration, from growing to processing and this is not an easy thing to do, but he had investors and it didn't come out of his own pocket. This is not where a lot of new farmers are at.

As I mentioned earlier, agriculture is a tough business to be into. If you look at the 2018 Statistics of Hawaii agriculture, it's pretty dismal. Here's some key data:

- Number of Farms increased 5% = 7328
- Farms Sales decreased 15% = \$563 million
- Farms of 1 to 9 acres = 60%
- 36% of farms sold less than \$2500 of crop
- Average cash income = \$4717
- Percentage are family farms = 93%
- Average Age of Farmers = 60 years
- Percentage of our food produced in Hawaii = >10%

If you're a new farmer, you're not going to make a whole lot of money when you first start up because you're reinvesting into the operation, and maybe this is where many are at. I don't know how accurate the data is, but it's the only one out there so it's worth mulling over.

Many entrepreneurs have learned that if you show a big profit, Uncle Sam will want to grab his share, so you need to come up with innovative ways of paying as little taxes as possible and this is where projections and planning come in, and this can be rocket science because it's about predicting where you'll be in 6 or 12 months from you. Predicting the future is not all science; it's partly art and intuition.



Avocado Dating: When is an avocado ready to harvest? Varieties have a specific season but it can shift slightly from year to year. One way is to pick it prematurely, mark the date and tree number and see how many days it takes to mature. If it takes more than 10 days, it's probably not ready. If it shrivels before ripening, it's really not ready. The proof is in tasting. The window to harvest can be very wide, and some varieties can stay on the tree 15 months after it's mature and ready to harvest?!?! This is about fine-tuning your operation.

Many farmers need to create more than on-farm infrastructure, and this means

networks, collaborations, partnerships, and new cohorts, not only physical infrastructure. Land is still a problem in Hawaii no matter what someone tells you about statistics and land classification, but where is it, and is it affordable with good land tenure and reliable clean water that passes food safety requirements?

I think you need a check-off sheet to make sure when you secure land that it fits you and your needs and it's not located on the other side of the island from where you live, unless you're willing to move or drive across the island a few times a week. Remember that if you're not ON the farm, you're not planting or harvesting, or even weeding.

Don't be afraid to price your product a little high as long as you can sell it because you've put your heart and soul into it. While it's great to turn people on to the best salad money can buy at an affordable price, you can't turn them on again if you're not in business next month or next year.

If I had to give new farmers a kernel of advice, it would be to organize and advocate for what you need as new farmers. This can be within an existing organization or creating a new one to address the unique issues of new farmers. This means political action and speaking to anyone who will listen. Until you get all the pieces of the puzzle in place to create solid opportunities for new farmers, it ain't gonna happen. Organize, organize, organize!

The power is not on your side, so you need to turn the tide by making it happen and creating a wave of support, including all the foodies who love your product. Growing food and addressing Hawaii's food insecurity is too important to just sit on the sidewalk and mope, hoping things will change. Be the change!



Tomato 'Prairie Fire', a new striped variety for Hawaii. With an onslaught of new diseases, it's important to grow disease-resistant varieties. Dairling in the right varieties takes field testing, tasting, and knowing what the market is chasing after.

Where's the land for new farmers at a size that new farmers can flourish on? Not a hundred or 500 acres, but 5, 10, or 15 acres. Does it have water? Is the lease long enough that a farmer can secure a loan and invest in the land?

I cannot overemphasize the importance of land even if I live and farm on

Hawaiian Home Lands with a 99 year lease, although I only have 66 years left on the lease. But I can empathize with those who keep moving around in their quest to find a piece of the rock they can really sink their hands into, because I was there once in my life. I see new farmers scrambling to get their hands on land, and many times the conditions or the leases don't favor them or give them a hand up.

It starts by sitting down and identifying what are the main priorities for small farmers then set out a plan to take on the most important issues first, one issue at a time. Educate the community, your representatives, and other farmers. If it's that important, come together and make it happen!

What kind of incentives can be created to kick-start new farmers? Competitive grants, cost-sharing programs, and post-Go Farm training and skill upgrades? Investment in new Hawaii agriculture would do a lot to boost the local economy and keep money in Hawaii by decreasing economic leakage where money leaves here and never returns.

Stimulating agriculture is critical to job creation and diversifying Hawaii's three-horse economy; tourism, military, and government.

Billions are being handed out to farmers on the mainland to help with the trade fiasco created by the government. This is only one example of investing in farmers, but what about the next

generation of farmers? Farmers need to be committed and have some ‘skin in the game’ because it’s not about looking for handouts. It’s a hand-up, investing in the farmers of tomorrow, and giving them a golden opportunity to thrive.

The Go Farm program would not have been possible without a cadre of committed staff with a vision and motivation to see this through good times and bad. Securing grants and funds to operate the program every year is a full time job! Constantly evolving is also important in keeping the program fresh and relevant, and this means getting your feelers out there and getting feedback from everyone involved. Finding partners can lighten the load.



A new old crop, Mamaki (Pipturis albidus) is found on the major islands and has many varieties or eco-types that can be used to develop new varieties. This is a hybrid between two varieties from Maui and the Big Island.

Steve Chiang, Janel Yamamoto, and Erik Shimizu have been there from the beginning, with Janel now at the helm. They are just part of the larger statewide group of island coordinators and participants that make up the Go Farm program.

Good luck to all graduates of the Go Farm Program and those presently enrolled. This is the first day of the rest of your life, so dive in with both feet and eyes wide open, but not head first because you want to land on your feet?!?!

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Well, that’s it for this quarter! Still playing catch-up like many of us, but if you’re all caught up then you’re not doing enough! It’s been a long hot summer all the way to December, and 2020 will be here soon. In the Hawaiian lunar calendar, part of the month of January is known as Kaulua, the month of two minds, of weather extremes, and it seems like winter never came in terms of the rain. The cold nights are definitely here with 50 degrees F here in Ho’olehua. If you plan around the weather, you won’t get anything done, so just plant...

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