



7/30/2014

Medicinal Tea & Garden

Business & Farm to Table
Summer 2014



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KALU YALA INTERNSHIPS

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Introduction:

From Jahd:

My interest in this project began before I joined the Kalu Yala team. Holistic lifestyles and Ayurvedic medicine have always absorbed my interest and tea is something I have personally used for medicinal benefits over several years. After researching Kalu Yala and being given the opportunity to join the team, I knew that I wanted to pursue making a medicinal tea product that benefitted the existing local communities and could carry on into the development of the Kalu Yala community. My hope is that this idea will perpetuate and include other holistic practices, becoming a well-rounded medicinal resource for the community. The idea of sustainability and working through nature is extremely important as well. I enjoy organic farming and this project gives me the opportunity to create an organic medicinal tea garden to support my products' development and possibly other products alongside it in the future.

From Chandler:

After seeing the already made meditation deck barely peeping out of the weeds, I knew I wanted to make the area beautiful again. Jahd and I looked up a previous intern's project of creating a meditation garden- seeing how it was before the Panamanian weeds grew back simply reiterated the urge I had conjured to see it fully refurbished. I had so many ideas right off the bat and that excitement drew me in and glued me to that area. Sitting on the deck, just far enough from camp to hear trees rustling, howler monkeys traveling, and maybe an occasional intern's giggle, watching the mountains merely exist before my eyes: this first experience at that spot moved me as I closed my eyes and took it all in. From there it turned into my secret escape. I made it my goal to make the Peace Tea Garden an escape for all to have access to. From there Jahd and I teamed up and planned for a medicinal tea garden which rocketed my original ideas out of the park. Building the beds and clearing out the land was a lot of work and worth every drop of sweat to see the finished product. Our combined interest and determination resulted in the garden- an oasis in an oasis that is the Kalu Yala camp.

This project will benefit the people living in the surrounding area by providing an organic, medicinally focused product. Some people do not have access to all of the resources that are on our farm in the valley and through the creation of our products we are able to bring those benefits to them. Medicinal teas will help promote the longevity of their lives as well as help cure ailments that are associated with their water quality and living environment. At the same time, all of this is helping to promote and sustain their own culture. It is common practice to use natural medicine among people in that region and we intend to utilize those remedies in our products. This project will help Kalu Yala continuously show that as an organization we care for the surrounding communities' well-being.

In the short-term we hope to have a plethora of tea products that are widely used in the internship program for common ailments and that the plants in the medicinal tea garden will continue to be propagated and taken care of. Once the medicinal tea garden grows to its full potential, our goal is to have our tea products sold for a low cost to the community of San Miguel and in the future community of Kalu Yala. Further down the road the hope is that the medicinal tea garden will include herbs and plants that are not only for oral consumption, but ones that also can be used topically. We would like to see someone in the future open a store in Kalu Yala that sells all of these different products and features

a holistic lifestyle option for the Kalu Yala community. This store would then take over the maintenance of the medicinal tea garden and all products would be created at the store's location.

Most of the impacts from this project are positive in nature. Health benefits will be provided to the local community through an organic product grown in the town itself and the local economy will be stimulated. Also awareness will be created for the Kalu Yala brand in places like San Miguel. The only negative impacts we foresee are waste created from product packaging and the pollution created from transporting some of the products to be sold in San Miguel, both of which we see being very minimal.

Research & Preparation:

Over the past several years Jahd has been personally investigating medicinal teas. Despite that, we had no idea what types of plants would do well in the tropical environment here in Panama so we had to do research to collect this material. Jahd began looking up information before I came to Panama and following our arrival, we learned that we could gain access to the past interns' projects. We found a past project from Summer 2013 by Lisa and Effie called *Garden-Medicinal* that offered information about different types of plants and their medicinal properties that are capable of growing in the Panamanian environment. It was through Lisa and Effie's project that we discovered the space we are currently using for the medicinal tea garden. They created the space in the upper section of the farm with the same intention of making a tea garden, which inspired us to reestablish that area. We also looked into other plants that were not on their list that we desired to be part of the garden.

We wanted to speak with locals in the area about what types of plants they use for medicinal purposes. We spoke with Ramon, our friend that lives a short distance past the Kalu Yala site, and also to Aura, Noris, and Miriam from San Miguel. All of them were extremely informative and gladly shared their knowledge of medicinal plants with us. Some of the herbs and plants they discussed were ones we had already begun researching, but there were several that were completely foreign to us. They explained what each plant was and the different ways that they use those plants.



Business Students speaking with Ramon and his brother about medicinal plants.

We also did research to investigate different types of composting and gardening techniques. The ideas we found that we most liked most were raised beds and variations of the lasagna gardening method. With lasagna style gardening you build layers in your garden. First you put down a layer of newspaper or cardboard. Then you put 2-3 inches of nutrient rich soil down and put a thin layer of wood chips and/or manure on top. This creates a process so that your garden is composting, creating its own nutrients. One does not need to stir up the soil with this style of gardening. As time goes forward you just add more layers to the top and it continues the process. From this research we found that using raised beds and lasagna style gardens would require less maintenance and be more sustainable, which is what we strove to achieve.¹



Raised Bed we created in Medicinal Tea Garden.

To date, the only expense we had related to this project was buying seeds to plant in our garden.

Implementation:

Initially our main focus was on creating a medicinal tea product from what was already available at the farm. We did research to ascertain what herbs and plants would thrive and grow in this particular climate. After that we looked to the farm to see what was currently growing and in what quantities. We compiled a list of plants that were both available on the farm in quantity and had medicinal uses and placed them in categories so that we could have teas specialized for alleviating particular ailments. Some of the categories we came up with, based on the attributes of our available vegetation, were Stomach/Digestion, Cold/Fever, Immune System, Lowering Blood Pressure, and Cancer Cures. Lists of available plants at the farm that go in each of these categories are as follows.

STOMACH	COLD/FEVER	LOWER BLOOD PRESSURE	IMMUNE SYSTEM	CANCER CURES
Peppermint	Peppermint	Gotu Kola	Gotu Kola	Lemon Grass
Mexican Marigold	Mexican Marigold	Mexican Marigold	Lemon Grass	Guanabana
Lemon Grass	Lemon Grass	Cranberry Hibiscus	Ginger	
Spearmint	Spearmint		Cranberry Hibiscus	
Ginger	Ginger		Guanabana	
Guanabana				

SPECIAL ATTRIBUTES	
GOTU KOLA	Wound Healing, Skin, Memory, Aging
LEMON GRASS	Headaches, Migraines (tested to be as powerful as aspirin)
CRANBERRY HIBISCUS	High Vitamin C content, High in some B Vitamins, Energy
GINGER	Chronic Inflammation

We then began test tasting in the valley to see what combinations of those plants went well together. From this we came up with several different products that would work for consumption. We realized we needed to expand the availability of our current plants on the farm that we were using for our tea product and that we needed broaden our plant selection. In order to do this we needed an area that could be dedicated to the project.

After getting the go ahead from the staff to revamp Lisa and Effie’s garden space, we cleared the entire space by hand, which took some time to accomplish. We then began our own compost pile with the waste created so that in the future we will have nutrient rich compost to add to our soil. Since garden maintenance will create bio waste, the compost pile should continuously be added to and incorporated into the garden. We brought fresh cut bamboo to the garden area and used it to create raised beds.

We then used soil from more fertile grounds of the farm combined with cow manure from the fields to create well-rounded soil and sustenance for the raised beds and lasagna style gardens.



Medicinal Garden before we started to clear it out.



Medicinal Garden after clearing most of it out

After the manual labor was completed, we moved onto marketing our products. After market research and some deliberation we chose to focus our marketing our efforts in Kalu Yala and San Miguel rather than the city because we wanted our product to be in the hands of the people who needed it most. We didn't foresee having enough of our product by the end of the semester to be able to sell in the city and the marketplace is far smaller in San Miguel and the Valley. From research that we did during this

decision making process we found that tea is more frequently used for medicinal purposes in the rural area of San Miguel. Also there are more common ailments due to their rural environment than in comparison to the city. We didn't solely wish to create and sell a product, we wished to help others around us and better the community at the same time.



Chandler at the newly built entrance to Medicinal Tea Garden.



Raised Bed in the Medicinal Tea Garden

Maintenance:

Our project will require some maintenance. We only planted a portion of our garden due to lack of time, so that section will require minimal maintenance. It will need to be weeded and watered on a regular basis so that our plants will continue to grow. Eventually more will need to be planted in our garden and expanded so that there will be more vegetation to harvest for products. For this, we suggest weed-wacking the other part of the garden and coming up with a planting schedule for each section so that it can be easily sown in the future. In order to maintain product availability, continual harvesting, drying, and product creation will need to be absorbed by future interns or business. The raised beds will need to be replaced in a few years as well.

Maintenance List:

FOR COMPLETED SECTION OF GARDEN	FOR UNCOMPLETED SECTION OF GARDEN	FOR PRODUCTS
Weed at least once weekly	Weed-wack area every other week so that it does not become overgrown (placing all plant waste into compost pile)	Harvest from plants as needed for products sustainably so that plants can continue to thrive
Water daily, pending whether or not it rains	Create sustainable and maintainable planting schedule (so that garden can be completed/expanded)	Dry harvested plants
Monitor Every several years replace raised beds	Once planting schedule is completed, create new raised beds or lasagna style beds and then propagate those spaces	Create Products
Add additional compost to soil every month	Once propagation begins, propagate with both new available and unavailable plants so that we can add to the depth and width of our plant variety	Brainstorm new product ideas based on plant availability
Put weeds into compost pile at the location		

Continuation:

We have several aspirations for the future of our medicinal tea garden and the products associated with its development. We hope that our product is continuously used in the valley and that the market in San Miguel is tapped in to. We did not get the chance to sell our products to the market in San Miguel and this needs to be completed for the dream of our product to come into complete fruition. We also want our medicinal tea garden to expand so that it can be used to create more of our already established products and other holistic products.

Once the town of Kalu Yala is created and businesses are moving in, we would like a store to be created that features a holistic or Ayurvedic style of living while creating and selling products that were grown from our medicinal tea garden. We believe this will benefit the entire Kalu Yala community and keep alive the idea of sustainability in the aspect of agricultural uses and health. We would like this store to keep our ideas alive of not being solely about profit but also of contributing to the lives of the communities surrounding it. We would also like this store to continue practices from the local people as well so that their traditions can transcend into the Kalu Yala community.

In the future our medicinal tea garden and products will be able to benefit both people in the Valley and in San Miguel. There are no foreseen negative impacts associated with our product in the future beyond having to transport it to San Miguel and any waste and utility usage that may be created from the store in the future.

Conclusion:

Although our product did not get completed to the extent that we wanted it to, we believe it be a great success. The only place that our product is currently available is in the valley but the created products have been well received by those that have tried them there. We also took a space on the farm that was completely overgrown and turned it into a medicinal tea garden that can be expanded upon to create betterment for the community. This was one of the hardest feats that faced us over the semester and we are both very proud of what we accomplished there despite the odds. Also, from doing research in San Miguel, we believe that the products will be well received there due to the fact that it's common for locals to use those types of products.

Beyond these physical successes, we both gained a lot personally from this project.

From Chandler:

Working on the Tea Garden truly opened my eyes to the possibilities of, not only Kalu Yala, but also my own personal growth. At Kalu Yala the floor is open to explore any and all interests and desires, exemplified through our project. Prior to Kalu Yala, I had minimal gardening experience considering my urban environment and did not know much at all. For this sole reason I wanted dirt under my nails and a solid sports bra tan to prove to myself that I could learn something completely foreign and thrive to create something beautiful. Our plan of a medicinal tea garden galvanized me into action knowing that we would soon have harnessed the natural power of healing through tea. Having recently become a tea lover, this put a green hop in my step. Through hours of weeding and bamboo chopping I learned that I am capable of much more than I had thought. The influence of the jungle taught me to trust myself more, take risks at all costs, and embrace surrounding beauty in all adaptations.

From Jahd:

Being at Kalu Yala and working on my project has opened my eyes to many new things. Before coming to Panama, I was not fully vested into the concept of sustainability. I believed it was important but did not make it a real part of my life. Working on my project I found that there are so many solutions to problems at your fingertips when you live in an ecosystem that is self-sustaining. In the jungle we were able to collect bamboo to make our raised beds, collect nutrient rich soil to put in our raised beds, and collect cow manure to make our soil more fertile. None of this would have been possible without being in the type of communal environment where one thing naturally feeds into another. I also learned if you work hard you can accomplish great things. What one can accomplish depends on your mindset and willpower. We were determined to complete this project as far as we did and in the end we are proud of what we created. To create something beautiful out of what once was a field of weeds leaves one with a feeling of accomplishment and pride. This is why being passionate about something can inspire and create amazing things. It has urged me to seek out all of the passions in my life so that I can create and inspire the world in the same way that Kalu Yala has inspired me.

We would also like to give a special thanks to several people who have helped us over the whole summer with our project. We wouldn't have been able to do it without you all. Thank you Brigitte Desvaux, Gina Roberts, Courtney Sanders, Megan Pelham, Nicole Milster, Austin Breunig, and Hodges Berry.

ⁱ "How To Grow A Back to Eden Organic Garden." *Back to Eden Film*. N.p., n.d. Web. 30 July 2014.