

Rancho Mastatal Updates

August/September 2010

Rancho Mastatal UPDATE for the months of AUGUST and SEPTEMBER 2010.

The Ranch is billowing with action and excitement as we hit the homestretch of the summer internship and prepare for our trip to the United States. We're putting in the cob floor at the Cork, constructing a new composting toilet out at the Casucha, producing more gas than ever in the fully-functional Meth Lab (biodigester toilet), tweaking and refining the biological experiment at the pond, harvesting up to 30 eggs a day, creating beautiful salads, jams and fermented goods out of the gardens and in the kitchen, planting dozens of new fruit and nitrogen fixing trees in the newly named Ferngully and out at the Goat Slope, rehabilitating the earthen walls at the Hankey, baking amazing breads and above all having an awesome time while doing it all. The latest crew of interns mostly start departing the Ranch in mid-September leaving Robin and I a few weeks with this year's caretaking crew before we head to the Northeast to see family and friends. AMY, EILEEN, VIKKI, CAROLINA, RACHEL, MICHELLE and a few others will make up the group that will be overseeing the Ranch in our absence this year. They'll be running the operation a bit differently than in years past as we attempt to truly slow down the activity level during the rainiest months this year. On the community front, we've welcomed two new babies into the community. CRISTINA and CAROL each recently gave birth to ALISON and SANTIAGO as the population continues to grow slowly. We're enthusiastic to see many of you during the months of October and November. Our itinerary will be bringing us on a not-so-unfamiliar route as we hit the Adirondacks, swing by the Bioneers by the Bay Conference in New Bedford, MA, get our yearly dose of VT, and spend a considerable amount of time introducing Sole to the state where Robin and I were both born and raised, New York. It's been another busy and long year and we must admit that we're looking forward to sleeping in once or twice and reconnecting with our peeps up North after getting after it for almost 10 straight months here in the Tropics. A special thanks to rock star intern MARY ELIZABETH for spearheading the newsletter this month and getting us back on track. Enjoy the update and post us up when you can.



Waterfall time

This month's update includes:

[RM Program News](#): Hasta Luego Lakeside Crew, Bienvenidos Permaculture Course

[Building Report](#): The Shit Shack

[Conservation Update](#): Vetiver

[Farm Facts](#): Agnus, Mabel and the Ducks

[Community Stories](#): That's what Mastatal Does! Science Fairs and Futbol

[Intern/Guest Gossip](#): The Dance, the Beach, and the Inevitable End

Comida Corner: Lemon Muffins

Fútbol Follies: Girls and Boys on a Roll

Inspirational Impressions: Merton

RM Program News: Hasta Luego Lakeside Crew, Bienvenidos Permaculture Course

Though this is the August/September issue, we start way back in July, when the Ranch was graced with a group from the world-renowned Lakeside School (not really world renowned... but kind of). Twelve rising, hand-selected 9th graders along with three teachers –Sandy, Patrick, Deb– came for two weeks as a part of the school's Global Service Learning (GSL) program. I say hand-selected because the students go through an application process in order to be able to come on the Costa Rica GSL trip. Needless to say, they were all very intelligent and mature albeit somewhat intense given their ages.

It was a great couple of weeks for both those living at the Ranch and the students. The students each paired up with an intern on two occasions to learn about their respective work and contribute to the productivity of the Ranch. They also helped with a few community beautification projects at the soccer field, the elementary school, and the cemetery.

Although I personally enjoyed giving the kids a hard time about their pubescent and hyperactive ways (which is completely understandable from a group of 14 year olds), they were undoubtedly a special bunch, continually surprising me with their knowledge, insight, and willingness to try new things.

Their stay culminated with a pizza party where students, teachers, and interns alike raided the costume boxes to come up with some interesting superheroes, none of them coherent or recognizable. I was a mix of Madonna and Ariel from the Little Mermaid. Frankly, I looked a lot like Carrot Top, who happens to be a personal hero of mine (JK). We also had Bandana Girl and my personal favorite: Hello Kitty meets a cowboy meets Raven from Mortal Kombat.

Once the Lakesiders left, we were bombarded by an international clan of budding permaculturalists. I was among the group who participated in the intensive two-week course that taught the principles and applications of the Permaculture Science.

The final assignment was a project in which groups of four to five individuals presented a design to satisfy their fictional but very convincing clients. Two groups were required to set up a Permaculture system for Christopher Mr. Miyagi, a leader in the international group Ninjas Overtaking World Orders. Christopher Mr. Miyagi had purchased a piece of land from the Ranch,



Front garden

and the design team had to transform that space into a Permaculture workshop for other ninjas while also teaching the local community how to set up small businesses utilizing Permaculture principles. The other two groups also had to recreate a piece of land while incorporating the things they learned in the class, BUT their clients were no ninjas. In fact, Fetishka and Ivan, a happy Russian couple, had an organic soap-making/pornography venture called Happy Fluids, which they wanted to continue in Mastatal, Costa Rica. They requested the service of permaculturalists to set up a piece of land so that they could pursue two organic businesses that fulfill their life passions: sex and soap. The design groups got their hands dirty, both literally and figuratively, working with the land and the forces that affect the land in order to please their clients. All in all, everyone did a lovely job, making both themselves proud as well as the instructor, Chris Shanks.

The course ended with a bang and by bang I mean a talent show, for lack of a better word. The show included a rap about Permaculture, a poetry reading, several singing performances, and a hilarious spoof of the instructor Chris Shanks. The class then took a field trip to Turrialba where they acquired seeds as well as plants in order to start their own Permaculture systems.

--Mary Elizabeth



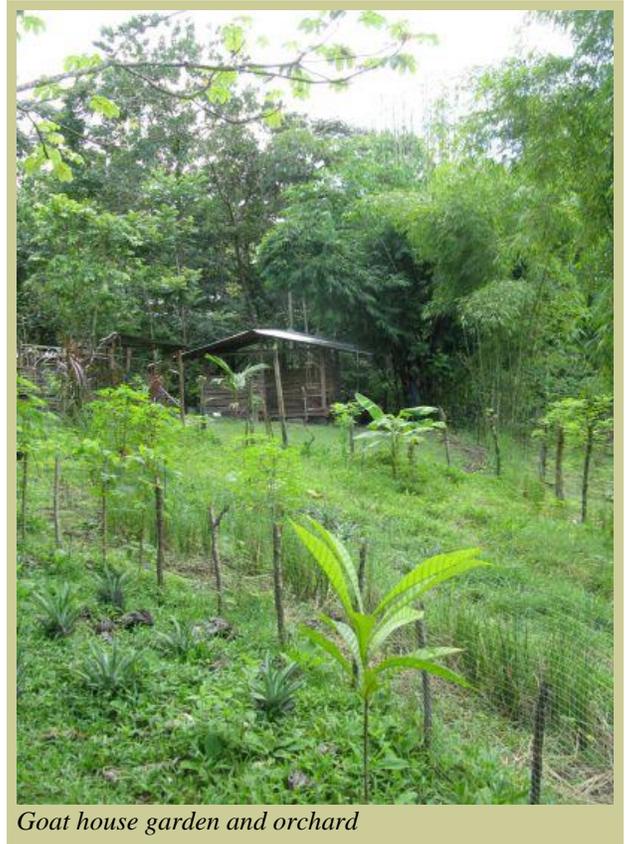
Bert, Designer and Builder of the Kakhut

Building Report: The Shit Shack

BERT and HANA, with the help of BEA, TODD, FABIO, BRYAN, DAVID and others, have been working diligently to design and build a new composting toilet out at the Casucha. They've affectionately dubbed their new building the "Shit Shack" (or "*Kakhut*" in Dutch). No longer will residents at the Casucha have to pinch cheeks and hustle to the "Tower of Poo" near the Hankey in the early morning to make their daily deposits. The new toilet, a 5-gallon bucket design reminiscent of our first ever composting toilet, "The Bank", features a beautiful cedar floor, Guadua bamboo frame, and cedar walls. Bert and Hana took this project on to satiate their appetites to design and build a structure from beginning to end and worked at lightning speed throughout. They saw the project through to completion in record time, one month. Come check it out on your next visit to the Ranch. It's a beauty.

Conservation Update: Vetiver

Vetiver, an upright, tufted, deep-rooted, and extremely dense grass, has quickly become one of our Permaculture superstars and with the assistance and motivation of AMY and RACHEL, has found its way extensively into our new food production systems. Vetiver grass, which originates from Northern India, is an excellent tool for combating erosion. Erosion control barriers using vetiver grass is a low-cost, simple and effective technology. Vetiver can survive extremes of drought, heat, water logging, pH, and, to some extent, cold. It is insensitive to photo period and grows year-round where temperatures permit. It does not harbour pests and diseases to any significant extent. Most importantly, most cultivated varieties of vetiver do not produce viable seed as has been shown in trials in a number of countries including Hawaii. So it is not a weed and not invasive. Any reader interested in growing vetiver grass should check carefully that the plants are of a genotype (genetic selection) that either produce no seed, or produce only sterile seed.



Goat house garden and orchard

Vetiver is a bunch grass with very rapid growth in warm, moist conditions growing to more than 2 meters in height and with a remarkably dense and vertical rooting system descending for 3–5 meters. It is an extremely strong plant, its roots having a tensile strength equivalent to one sixth of mild steel, and when planted on the contour as a hedge presents a virtually impenetrable barrier through which soil can hardly pass and through which water only passes with much reduced velocity. As silt builds up behind the plant it is capable of shooting from the nodes and rising above the deposited silt to form a natural terrace. Weeds and undesirable foreign grasses, are unable to penetrate through a well-established hedge. It is cheap and easy to plant and maintenance is minimal. Overall, it is not detrimental to crops or forestry grown between hedgerows due to the vertical nature of its rooting system.

Vetiver is tolerant to a wide range of climatic and soil conditions. For instance it has been shown to flourish in temperatures from -9 degrees C to 50 degrees C and in areas with rainfall as low as 300 mm per annum or as high as 6,000 mm per annum. It survives pH levels as low as 3.3 and as high as 10.6. It has been successfully grown to stabilize soils on the slimes surrounding mining sites in South Africa and tin mine wastes in Malaysia and Australia where it tolerates very high levels of heavy metals. It has also been used for degraded wasteland rehabilitation. It will grow in saline and sodic conditions and even in acid sulfate soils or pure laterite. It survives fire well, pushing out new green shoots shortly after fire has ravaged an area. Consequently, when in its green state, it can be used as a firebreak. Whilst Vetiver is growing effectively at 40 degrees North in some countries its primary area of growth is in the tropics and sub-tropics. It is commonly grown to control soil erosion and retain water on slopes in excess of 45 degrees. Vetiver acts as a pioneer

plant growing where other plants would not survive and providing micro-climatic conditions where native species may become established. Vetiver has a myriad of on-farm and other uses besides those mentioned above, including, for example, use as a living fence and boundary marker. The leaves and roots of Vetiver can be used for an extensive range of handicrafts and are excellent for thatching. The young leaves are palatable to livestock and have about the same nutritive value as Napier grass (*Pennisetum purpureum*). It is used domestically in cooking and insect control and also has medicinal properties.

Vetiver produces an excellent long-lasting, absorbent mulch which, when placed around fruit trees reduces evaporation and aids in the long-term, build-up of mycorrhizae. The leaves are unattractive to insects. In India it was recorded that 90% of tree seedlings survived when mulched with Vetiver as against 30% in an untreated control nursery.

We are counting on this increasingly important species to be a principle player in the revitalization of our orchards and gardens and hope to spread the word to others who might be interested in incorporating this magical plant in to their systems.

Farm Facts: Agnus, Mabel and the Ducks

Soon after the passing of ALICE we wanted to get BONNIE another companion or two rather quickly as goats do best in company. As a result we arranged the delivery of two new goats and to many's surprise four ducklings. AGNUS and MABEL, the young does that now accompany Bonnie out at the Goat Slope, have added new life and excitement to the Ranch with the help of our first and yet unnamed waterbirds. The "Farm" is bustling with life these days and becoming a popular spot for animal lovers to hang out. With upcoming goat milk and cheese production, the evolving pond, and other developments there promises to be much new news originating from this area of the Ranch in the coming months and years. Stay tuned!



Community Stories: That's what Mastatal Does! Science Fairs and Futbol

In the past month, Ion, Moises, and Josue, a few of the beloved kids in the local community, represented the Mastatal elementary school at the district-level *Feria Científica* in La Gloria. I attended the science fair not knowing at all what to expect.

The high school reminded me a lot of what I picture a public school in the southwestern United States to look like. It was very open to the outdoors with a lot of ramps and different levels (a skateboarders dream) and painted predominantly blue and white. One of the things that struck me most about the day is that after lunch everyone brushed their teeth. Everyone. It was an odd sight seeing a group of high school students in their uniforms of light blue oxfords and navy blue pants brushing and spitting into the grass all at the same time. When I asked Kattia, Ion's mother, a cook at the Ranch, and a friend of mine, she told me that everyone in the country does that. When I informed her that nobody in the U.S.

would brush their teeth at school, she responded by saying "sucios," meaning dirty in a joking tone. Costa Ricans presumably do not see a dentist twice a year so their form of dental care involves brushing their teeth right after every meal – not a terrible alternative.

The science fair, on the other hand, took up two classrooms. There were probably twelve projects *mas o menos* competing to make it to the regional science fair which will take place in Puriscal in the coming months. The ages of the children competing ranged from five to twelve. Projects included showing the process of water moving upwards throughout a plant using the ole' celery and food coloring trick – lame. Another presented the metamorphosis of a butterfly... also underwhelming. I was half expecting to see the baking soda volcano. To be fair, there were some legitimate presentations. Many of the projects dealt with environmental issues such as water contamination, recycling, and medicinal plants. The school from Zapaton (an indigenous community right up the road from Mastatal) presented clay and ceramic artifacts of their tribe. They described how they were made as well as the importance of the artifacts to the history of their people. Moises and Josue's project described the medicinal uses of the local plant Targua.

Our favorite, Ion's project, was of course the best one. He explained the process of making paper from banana leaves and bamboo. He along with every other project had a stand-up poster explaining the project and its primary objective, the processes, and the conclusion. He also had finished products of his paper in the form of greeting cards and a small notebook as well as an



Red

photo by Matthew Abrams

official-looking booklet describing the entire process of his paper-making venture. His objective was to help nature by finding an easy way to make paper on a small scale using plentiful resources in your environment, i.e. bananas and bamboo. Yay! His excelled beyond many of the others for two reasons: he had a finished product that he himself had made and a pertinent scientific topic (environmentalism). Good job, Ion!

I was very proud of Ion. Evidently so were the judges, because he got through to the regional fair. The kids from Zapaton and Moises and Josue did as well. I LOVE SCIENCE. WHOO!!

-- Mary Elizabeth

Intern/Guest Gossip: The Dance, the Beach, and the Inevitable End

I have exactly one week before I pack my bags and leave Mastatal, Costa Rica, hopefully to return one day soon. When I first arrived at Rancho Mastatal, it was quite an adjustment. I moved into a glorified tree house, had to pee in a bucket in the middle of the night, and constantly worked with either human or cow feces. To say the least, I was overwhelmed. I distinctly remember thinking, "Three months?! I can't do this for three months. It's too much. It's too different." Those feelings of fear and regret lasted approximately two days. Since then my time here can be characterized as happy and rewarding.



Group Shot

I arrived here on June 20th a week after the rest of my intern group, and the process of getting to know these unique and giving people has been a blast. The internship at Rancho Mastatal is an experiment in community living. In sum, we have become a family living, working, and sharing meals with each other. As a group, we have had our ups and downs of course. However, I can honestly say that I will remember these people for the rest of my life because of the experiences we have shared. Whether it was a trip to a nearby waterfall or a dance party in the kitchen while doing the dishes or a night of playing Apples to Apples, these last three months have been permeated with establishing lifelong friendships and coming up with ways to enhance the livelihood of the Ranch.

Some highlights: Our trip to the beach was exceptionally lovely. We had a long weekend getaway at a small beachfront hotel in Esterillos Este, an extremely isolated and undeveloped beach in the central Pacific region of Costa Rica. Due to the isolation of the hotel, we had only each other to keep ourselves entertained. Thankfully, with the help of Tim and Robin's daily trips to the beer store, we were able to stay happy and satisfied. He he. In all honesty, the trip was a perfect retreat offering lazy and relaxing days full of reading, swimming in the ocean, and beach sports followed by fun nights where we entertained each other with cards, Cranium, and drinking games. An experience from the trip that will be forever etched in my memory is a volleyball game played alongside a gorgeous Costa Rican sunset. Once the hilarious game of both skill and folly was finished and the sun had set, we all ran into the ocean and swam in a soft blue light which was

provided by a bright and low moon – utterly beautiful and unforgettable.

Also recently, Mastatal hosted *un baile*, a dance! During the week leading up to it, the town spent many hours getting the community center ready for the big event. And by that I mean cleaning it out, setting up DJ equipment and some disco balls, and of course equipping the place with a full bar. People from Mastatal as well from the surrounding towns came together to enjoy a fun night of dancing and mingling. What struck me most about the dance was the presence of children. The community did not treat the dance as a sinister event where sinful behavior like drinking and dancing occur. Thus they did not exclude a large portion of the community based on an arbitrary thing such as the difference between 20 and 21. Rather, it was an inclusive event where everyone could gather and have fun. I personally had a delightful time dancing in a circle with all my friends albeit many of my friends happen to be under the age of 12. In between the *regaton* and pop music, I along with most of the other interns also dabbled in *merengue*, *salsa* and other Latin American dances. Bless the ticos who were patient enough to show the gringas how they are done. It was indeed a very fun night!

Although each of these celebrations brings the intern and volunteer group closer together, it is really the day-to-day activities and meals where we have become a family. This Ranch functions best when we are working together and for each other day in and day out. It really comes down to the little things that makes this place special: the conversation about a person's belief system while you are trying to complete a project, the act of helping with dinner even it is not your shift to cook because you recognize that the person cooking is exhausted, or even the small demonstration of gratitude at circle when you thank someone for helping you out earlier that day. All of these things and so much more that I could never put into words are the heart and soul of Rancho Mastatal. With only a week left, I am already feeling the pang of sadness and nostalgia at the thought of leaving this amazing place as well as the people who make up the community behind.

--Mary Elizabeth

Comida Corner: Lemon Muffins (or Starfruit or Mango Muffins)

Check out these delicious muffins.

Makes 8 Muffins

Ingredients:

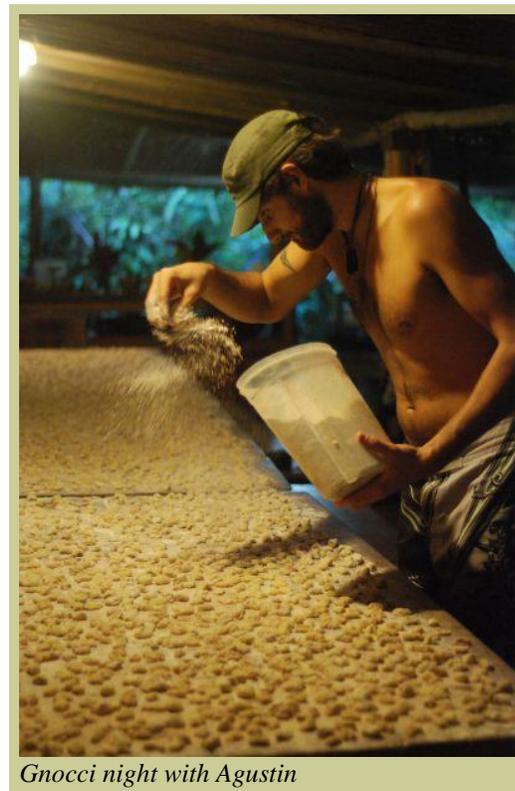
- 1¾ cups unbleached all-purpose flour
- ½ cup sugar
- 1½ teaspoons baking powder
- ½ teaspoon baking soda
- ¼ teaspoon salt
- 1 stick unsalted butter (one stick)
- Grated lemon zest of two lemons (optional)
- 2/3 cup of lemon juice (star fruit or mango juice or diced chunks of mangoes; starfruit also works)
- 2 large eggs

Process:

1. Preheat oven to 400 degrees F. Grease muffin cups and fill empty cups with water
2. Combine dry ingredients in a large bowl using whisk flour, sugar, baking powder, soda, salt, and zest.
3. Combine also the butter, lemon juice extract, and eggs
4. Stir the wet mixture into dry ingredients and pour batter into muffin cups
5. Bake 20-25 min or until lightly brown and cooked in the middle

What is especially cool about this recipe is how versatile the ingredients are. Sometimes at the Ranch we substitute some of the ingredients (cream or oil for the butter, starfruit for the lemons, etc.) and they still always come out delicious.

!Buen Provecho!



Gnocci night with Agustin



Mary and Moi

Futbol Follies: Girls and Boys on a Roll

Both the girls and boys' teams are on a little roll with recent wins for both in Playón Sur and Guarumal. *Deportivo Feminino Mastatal* matched up against a solid San Vicente team while the boys took on a tough Naranjal team in Guarumal a few weeks back on a beautiful Sunday afternoon. MARY led the girls to victory with four, yes you read it right, four goals, every one which was necessary, as San Vicente netted three goals of its own in a 4-3 victory for the good side. Meanwhile, the boys fought back from a 1-0 deficit to score two second half goals, the first by RONAL and the second, a blistering shot, by CRISTIAN, for a real nice victory. The following

week saw similar results as the boys took on a solid team from Parrita called "Los Sueños" and the girls a big team from the hosting community, Playón Sur. TIMO led the scoring for the boys with a nice header about 10 minutes in, a birthday goal for the aging vet, and CRISTIAN and ALEX rounded out the scoring for a real nice 3-2 win in a well-fought battle. The girls marched to victory with nice goals from ANNIA and Mary and added another on an own-goal in a solid 3-1 triumph against the hometeam. Action continues in La Vasonia this Saturday for all three Mastatal teams with the kid's team back in action after a bit of a hiatus. More to come next month.

Inspirational Impressions: Merton

"No man who seeks spiritual freedom can afford to yield passively to all the appeals of a society of salesmen and of consumers. There is no doubt that life cannot be lived on a human level without certain legitimate pleasures. But to say that all the pleasures which offer themselves to us are now legitimate is quite another story"

-Thomas Merton

Abrazos,

The Ranch Crew