

Rancho Mastatal Updates

October November December 2012

We're beginning to wrap up our longest stint away from Mastatal since 2001. We finagled almost 4 months stateside this year to refill the tanks, reconnect with family, dream about a North American based project, and catch up on the ever increasing administrative role that has coincided with our new and exhilarating offerings of in-house workshops and classes. The Ranch continues to evolve, but it seems that the past 12 months have brought upon as many changes as any other 1-year period since our inception over 11 years ago. We are making incredible strides into food

production and energy independence and continue to watch and engage as our little community grows in amazing ways. With these transformations comes reflection and ensuing decisions that will impact how the next chapter will be written. Upon returning to the States a few months back, Robin and I sat down and had a conversation about working towards simplifying our lives. From an outside view, our situation in Mastatal may seem at times rather stress-free and far away from the arguable restrictions of First World living, but the dynamism of our project and the complexity of what we're trying to accomplish does take its toll during the course of year. Living in rural Mastatal, in our small community on the edge of the forest, can be an intense experience. As the Ranch moves firmly into its second decade of being, we have the important responsibility of assuring that our work continues down the path that we intend it to. As we oftentimes joke at the Ranch, the project has become a beast with a mind and body of its own. This has signified longer days, more questions, and a palpable pressure to keep our systems and reputation intact. It's a lot. As a result, we've been exploring ways to tame the beast a bit and bring it back to a place that allows all of those affiliated with the Ranch to fully engage in our work without the periodic and heavy encumbrance that can be a part of being a decision maker at Rancho Mastatal. We are presently taking steps to shrink our volunteer program and increase the length of our internships in a move to create a greater sense of stability and continuity. We are working diligently to design and install systems that truly move us toward a resilient position in our community. These efforts include a mind-bending agroforestry push that is quickly resulting in improved soils and massive food security advances; a cooking and energy infrastructure that makes it feasible to operate without imported fossil fuels; and a food system that provides our site with fresh milk and cheese, endless greens, an abundance of fruits and grains, plentiful fodder and fruit, and a network of nitrogen fixing trees and bushes that help us do the work of improving soils while we sleep. This of course comes on top of all of our educational and community efforts. None of this is possible without our local and international support network. Many of our our recent advances can be attributed to an on-the-ground team of dedicated professionals that firmly believe in the work that we do. SCOTT GALLANT, LAURA KILLINGBECK, SIMON EVERS, TYLER SEE and others have poured their every ounce of energy and sweat into our project during the past few years. Without their support, we'd be but a skeleton of what we are today. The new challenges that arrive each day from the unique position that the Ranch finds itself in necessitates a devoted, resourceful, motivated and agile staff that has the ability to wear a dozen different hats in a day. It's no small achievement. In fact, it defies odds on a common basis. Our time away from the



Orchard Establishment Workshop

daily hustle and bustle gives us an opportunity and the luxury to reflect on what the last 11 years has meant to us and gives us the space and time to try and honor everyone that has made this trek possible. In the mix of what a typical day entails in Mastatal, we are oftentimes unable to find the time to praise and celebrate our past successes and the people that have made this all possible. To borrow the words of one of my mentors when responding to a comment about our increasingly busy lives, “life gets to be a whirlwind for all of us at times. I can say that my wife and I have been in the same boat with kids in college, kids moving all over the country and all the day to day responsibilities. It is always best to try and stay focused and maintain that lifestyle which addresses the base necessities without overwhelming us with the many additional niceties we all too often get side-tracked with”. So true. That said, we have so many people to thank for the blessing that has been our life since relocating to Central America. We hope to begin to make decisions that will allow us to step back from time to time to honor each one of you out there that has given so much to the community of Mastatal. As yet another year quickly comes to a close, we want to express to all of you how grateful we are to have you in our lives. The coming year promises to be another full and fulfilling one. We will try to extend our stateside stay in 2013 a bit longer as we contemplate a life that will see our time split a bit more evenly between the two countries that we now call home. We continue to dream and perhaps move closer to a tangible Rancho Norte, or whatever you want to call it. We'll certainly do our best to keep you posted on all fronts. We'd also like to thank you for sharing our workshop announcements with all of your friends and colleagues. Our ability to reach out to more and more people that are excited about our work has proven to be such a valuable tool as we organize and promote our own series of courses and classes. Please continue to help us to get the word out. Without further ado, grab some nog or a hot tottie, find a comfy place, and enjoy yet another wonderful Ranch newsletter. Happy Holidays.

This month's update includes:

[**RM Program News:**](#) Wilderness Medicine Classes with Aerie

[**Building Report:**](#) Big Plans in 2013

[**Conservation Update:**](#) Slow Cooking

[**Farm Facts:**](#) Orchard Establishment in the Tropics: Applied Permaculture with Chris Shanks

[**Community Stories:**](#) Jodee

[**Intern/Guest Gossip:**](#) Jungle Footwear Anthropology

[**Comida Corner:**](#) Fermentation Poetry

[**Fútbol Follies:**](#) Clearing the Field

[**Inspirational Impressions:**](#) Happiness



Dislocated Shoulder Scenario with Aerie

RM Program News: Wilderness Medicine Classes with Aerie
It's almost that time of year again. Join us this January for one of two amazing wilderness medicine classes with [Aerie School for Backcountry Medicine](#). Dave, family and crew will be returning to Mastatal in early 2013 to empower yet another group of aspiring medical professionals. If you want to feel more competent in the wilderness, live rurally, or just feel the need to make the world a safer and healthier place, you should consider getting to know Aerie and their incredible staff during one of our upcoming January [wilderness medicine courses](#). The lives of many (including Robin and I) have been turned upside-down (in a positive way) by the classes that Dave and Aerie offer each year at their site in Montana and other locations throughout the world, including ours in Mastatal. We have been blessed by our relationship with the McEvoy's since meeting them in the Swan River Valley over a decade ago and would encourage each of you reading this with an interest in helping yourselves and others to consider taking one of these life-altering classes. For more information, please see our [Events Calendar](#) and/or contact [Aerie](#) directly.

Building Report: Big Plans in 2013

Even as we continue to shift our focus towards food production, our building docket in 2013 will be as full as ever. The upcoming year will be yet another exciting one in the realm of natural building, especially as we begin to refine some of the techniques we've been employing for over a decade. We will be hosting no less than three alternative construction workshops this year; one each in Earth Construction, Bamboo Building, and Timber Frame Construction and with some luck another on an increasingly popular natural plastering technique named Tadalakt which is a way to waterproof earthen structures. For more information about all of these courses please see our [Events Calendar](#).

The new year will also of course be a time for new construction. We have one medium, one large, and many smaller building projects on the calendar for 2013. We will be adding a porch to the recently built Honey Hut as soon as we can get the materials together and will simultaneously begin designing a new cabin to be located in the woods not too far past the Kevin F. Costner Hen House. The site is set in the woods with spectacular views towards the La Cangreja National Park. Upon completion of the cabin design, we will begin building the foundation and deck and then cut and build the frame during our February [Timber Frame Construction workshop](#). Other smaller building projects next year will include the construction of a biochar stove, which will become our sixth non-propane cooking option in our ever more sustainable kitchen, the fabrication of a ferrocement tank to be used for orchard irrigation, and the erection of a new compost pile structure at the Main House. We also hope to make headway on designing and building a large solar dehydrator. All of this will be in addition to our ongoing furniture construction projects. So, if you're excited to build, or learn how to build, find a way to make it down to the Ranch next year to participate in any one of our exciting programs.



Cork Raising

Conservation Update: Slow Cooking

A new volunteer curiously approaches to find out what I am doing this sunny morning. “Cooking” I respond, while yawning and resting in the hammock. They give a curious glance, obviously questioning my ability to cook while lying in a hammock, yet ask if they can help, looking to get involved in the community's daily chores. I strain my neck out toward the front gardens, with a mischievous smile, and suggest they could turn that box 5 degrees west. I giggle at myself and rise to show the fresh face our solar ovens. These are small wooden and metal boxes, with double pane glass, an angled reflective lid, and multi-colored finger paint streaked on by local children. The smell of banana bread drifts through the hinged door. Cooking banana bread involves occasionally turning the oven to align the reflective lid with the sun's rays, but on a cloudless day you can more or less ignore it until you are hungry.



Corn Drying in the Sun

“The solar ovens,” I explain to the volunteer, “are one of our many alternative heat sources for cooking.” I lead the way into the kitchen, where the diversity of slow cooking options begins to become clear...and challenging.

“sputtzzzzzz...sputtzzzz...sputtzzzz...sputz...spu.spuspyps.” Silence. Sputnik our used veggie oil stove, a dangerously loud MSR whisper-lite on steroids, wasn't cleaned properly the night before. It won't start. This is not the best way to start the day, indicated by the moans from the breakfast crew and a not so subtle suggestion to throw Sputnik into the jungle. They look at each other with a knowing expression, it explicitly states “I really want to toss these eggs on the propane stove, but I know I shouldn't!” I watch someone hustle down to the double-burner rocket stove, grab some kindling, and start a fire. Breakfast is supposed to be ready soon, and boy it would be easy to just turn on the propane. But alas, we are on a journey of slow cooking, our communities attempt to be propane-free.

I live and work at Rancho Mastatal, an established Sustainable Living and Education Center located in the small town of Mastatal. For the last ten years the Ranch has been feeding its guests, volunteers, interns, and workshop participants three wonderful, wholesome, and local meals a day. We grow as much of our own food as possible and buy the rest from our neighbors in the region. During the busy season we host an average of 40 mouths at every meal, meaning we cook over 120 meals a day in our small family kitchen. The ethics of slow food has long been instilled in our kitchen: each meal is prepared from scratch over three to four busy hours. This labor of love has paid off, as our visitors and participants routinely rave about our food and two years ago we published our first cookbook, *Buen Provecho: the Recipes of Rancho Mastatal*. We are proud of the food we serve, where it was grown, and the bellies it fills, but a year ago we began actively questioning the use of propane in our kitchen and its place in the slow food paradigm.

Just as you have a choice when you shop for food, appropriately taking cues from the season and local cultures, you have a choice when cooking that food. Unless you are a raw foodist (not a good fit with the abundance of Oxalic and Cyanic acid in many tropical veggies) you will be using some form of heat in your kitchen. For most of us that means propane or electricity. Both of these heat sources are fast and hot, they are transported easily, often brought directly into our homes, and they make cooking food effortless. The hardest part of using our propane stove is finding a lighter that works. I think someone hides them.

At the Ranch our propane stove has done the bulk of our cooking for ten years. But, over the last year we have begun to re-evaluate this choice and its place in our kitchen. We questioned whether it fit into our ethics to cook food grown with love, using energy industrially mined from our planet. Propane is a by-product of natural gas mining and oil to gasoline processing. In Costa Rica that gas in your canister most likely comes from Venezuela. Without discussing the politics of Hugo Chavez or fracking, we came to a simple conclusion at the Ranch: we want to minimize the use of propane in our kitchen. It is easy to brush this topic aside and just turn on the stove, just as it is easy for many people to buy packaged food, eat fast food, and cook exclusively with the microwave. The Slow Food movement has done a wonderful job of encouraging people to reverse this and take the time and energy needed to cook real food. Where does Slow Cooking fit into this ethic? For us it has become an important part of our work, our daily chores, and we hope to inspire others to do the same.

So the question has become for us, what are the alternatives to propane and what role can they play in our kitchen?

Roughly a year after we set about with this question in mind our kitchen has become populated with a number of strange looking cooking appliances. We have come to the conclusion that no single cooking option currently is as fast and easy as propane, but by building redundancy into our system through a diversity of heat sources, we are easing ourselves off of propane. It is fitting, and not at all shocking, that once again diversity presents itself as a true root-cause-level solution.

So, without further ado, our lineup of non-propane cooking options: □

1. a two-burner methane gas stove,
2. two wood burning cob rocket stoves,
3. a cob and brick baking oven,
4. two passive solar ovens,
5. a used veggie oil burner,
6. and coming soon, a wood burning biochar stove.

Impressive collection right. Now of course no normal kitchen needs all of these, but as a living laboratory of sorts, it has become our goal to expose our guests to these alternatives. Just as we expose individuals to the idea of making their own mayonnaise, carbonated sodas, buttermilk, bread, and much more, we want to give people choices beyond the big ugly box with the four circles sitting in their kitchen.

In our kitchen these alternatives get used every week, and many of them for a few hours daily. The result is we are often able to cook meals with little to no propane. It has become part of our culture that every cooking team challenges themselves to use as little propane as possible. These days, one can often hear a celebratory shout from the cooks, "Propane-free!", and of course a communal cheer ensues. We've talked about giving gold stars to these talented cooks, as they run around re-kindling the fire, cleaning sputnik's vaporizer, and re-positioning the solar ovens.

This is an exciting and rewarding step for us, filling in the whole circle around slow food that includes growing, processing, transporting, cooking, eating, cleaning, and composting. Slow Cooking expands the idea of Slow Food, it encourages us to once again think about our daily actions, and not surprisingly it brings a whole new set of challenges and joys to our lives.

Instead of importing propane, we are using used veggie oil, wood, human and animal waste and the sun to cook our food. While we are thrilled about the renewable nature of each of these sources, we can't brush aside their challenges, just as we can't ignore the external costs of propane. Each of these heat sources presents its own set of challenges. One of the reasons propane is so easy for us to use, is that we don't see

the costs of getting it to our kitchen: environmental pollution, destroyed communities, government subsidies, etc. For these alternative sources we must explore how they arrived at the Ranch, what by-products they have, are they realistic alternatives for rural families, and so much more.

The wood burning rocket stoves are a wonderful exploration into appropriate technology. These are small efficient stoves designed to fully combust small diameter pieces of firewood. They have the ability to solve two problems at the same time: □

1. they reduce respiratory disease by minimizing smoke inhalation through full combustion, and
2. they reduce deforestation by relying on small pieces of firewood which can be gathered without felling a whole tree. □

Essentially this is a perfect resource for us to master in order to accomplish our goals, but of course it becomes more complicated than that.

We often get our firewood from a neighbor's sawmill. These are scrap pieces of wood that would otherwise be bulldozed into the forest. We trust our neighbor, but we also know that illegal logging practices are common in the region and less occasionally our small town. Can we guarantee that the wood scraps we are using were not illegally harvested? Questions continue; how were they transported to the mill? To our farm? Were trees planted in their place?

Once you get going it becomes easy to get mired in the muck of the unknown. Fortunately, with slow cooking one is working on the local level and can often find the answers to some of these questions. Better yet, we can often develop our own solutions to these challenges. By planting our own trees for firewood we can eliminate any demand we inadvertently create in the logging industry. Going a step further these trees can be multi-purpose agroforestry species such as Madero Negro, Poro, and Acacia. They can be pruned yearly, producing the perfect size firewood for our needs, all while releasing valuable nitrogen fertilizer into the soil, and re-growing their branches through their coppice response abilities.

Another great example is our methane biodigester. Through this simple system we input fresh manure and receive hours of cooking gas, ready-made manure tea, and the perfect medium for our worm composting system. The benefits of this system fully outweigh its challenges. Being able to produce one's own cooking gas, while also supporting the local economy (we buy the manure from our neighbor), instead of the propane company, gets us excited!

This is quintessential whole system thinking. The Slow Food movement examines many parts of our agricultural and culinary worlds, but it often leaves out mention of heat sources for cooking. We hope to close that loop and remind ourselves that people did not always use propane for heat. The sun and its byproducts (wood, manure, etc) provide legitimate alternatives. We prove that everyday in our kitchen. It is our mission to expose individuals to this reality, and knowing that as I type these words someone is in the kitchen kindling a fire for the fresh beans harvested from our neighbors land, it feels like we are doing good work and my stomach can't wait for the results.

by Scott Gallant □

Farm Facts: Orchard Establishment in the Tropics: Applied Permaculture with Chris Shanks

One of the best parts of taking a course with Chris Shanks is watching the veins pop in his neck as he leaps across hillsides, flailing his arms and screaming about plant morphology. “Man,” I think, “this guy is *really* excited about biomass. *Maybe he’s on to something?*”

The Orchard Establishment Workshop with Chris Shanks was the second in a series of Applied Permaculture courses offered this year at the Ranch. It was partially inspired by the success of the first course “Advanced Agroforestry Skills,” taught in April by Peter Kring. (Peter Kring is basically a wizard, so obviously that course went well.) Chris’s take on orchard establishment was more ninja-style than wizard, although he did show some serious wizard qualities in his uncanny ability to rattle off the Latin names of basically any tropical fruit or nitrogen fixing tree known (or not known) to humankind.

The course began with a site analysis of each participant’s orchard. We looked at the different environmental and landscaping factors that would affect the decision-making process in establishing healthy orchards in different areas. Some of the ideas were what the budding permaculturalist would expect—look at sun, at slope, at soil. But there were also a lot of juicy tidbits and ideas gleaned from Chris’s decade plus of experience in the field that I never would have learned from reading El Arbol or Overstory. I loved watching the class raise their pens in unison as Chris said, “Write this down because it took me eight years to learn.” *Okay. I will then.*

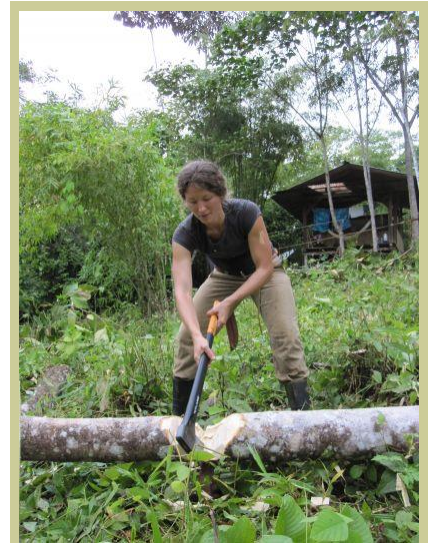
After lunch (involving Katuk fritters and candied *Mamon Chino* seeds) we took it to the field and looked at various states of orchard succession at the Ranch. We got the low-down on nitrogen fixers, the godliness of biomass, and the value of simple systems that reflect complex states of succession.

On day two we whipped out the machetes and axes and cleared several hundred square meters of scrub. As Solin put it, “A man’s machete is his resume.” It had better be sharp! We used A-frames to measure contour lines, planted Vetiver, and made dead barriers. In the afternoon Chris, Solin, Jorge, and Rob gave us one-on-one instruction in the workshop on the fine art of tool sharpening. The entire class was jealous because I got to sharpen Barry Biesanz’s machete (the one we accidentally stole after Barry let me use it to harvest some turmeric in his lawn). “Look, it still smells like Barry!” Scott inhaled as the class eyed me with envy.

After dinner (involving nixtamalized corn pozole and squash tart) I accidentally got the entire class wasted on an especially potent batch of live cultured ginger beer. (I’m sorry Mr. Police Officer, microbes made me do it...) But seriously, we were trashed. The funny thing was that even though everyone was pickled off their arses, guess what they still talked, laughed, screamed, and sang about: *Sustainable orchard systems. Palm tree varieties. Nitrogen fixers.* It was our dream come true—a whole room full of people drunk on microbes, appropriate technology, and orchard succession.

Since there’s nothing like working off a hangover with a little orchard establishment at six in the morning, the next day we took it back to ninja-style in the field. Then we switched to wizard-style in the afternoon as we crammed tree species, pruning techniques, and more site assessments. Throughout class we snacked on buckets of Brendon’s ridiculously sweet oranges, the odd Soncoya, and homemade chocolate from Jorge’s cacao farm.

At the end of the course we all promised to visit each other, traded seeds, and hugged goodbye. Chris road off into the sunrise on his motorcycle, and I went back to the field to keep planting trees.



Axe Work during our Orchard Workshop

By Laura Killingbeck

Community Stories: Jodee

Enjoy this amazing poem by JODEE ADAMS-MOORE, a former Ranch intern.

□ Froze the rainbows into cages
which is why we wove our wadges
into slips of cellephony
rodeo on tele-pony

bony hands touch bony knees
while softer spots inside of me
porta-surf Bojangle waves
into the belly of the cave
find the rugs to lay upon
in twin peak hues and velvet song

shards of dreaming fire bushes
two click to the fire pushes
stumbled on a dusky morning
salamander sat forewarning
under leaves a week ago
asked if I be friend or foe
said I wanted to be near
but the later's what I fear

burned up all the dampened places
narrow halls find hollow faces
watch them waltzing front to back
to the longing
to the lack

luster rides on glacial blue
erratics wait now overdue
and by the hand she leads me into
pools of nudibrach to sing to

jubilant at jubilee- downed another julep tea

ran up high to belly-yell while far below the city fell
licked the skulls on forest floors
knocked and heard the mushrooms roar
& in the space where mouth meets tail
strung the corn atop the snail

Jodee Adams-Moore



Concentration

Intern/Guest Gossip: Jungle Footwear Anthropology

It is hard for me to state, with any certainty, what the fashion status of footwear is back stateside. My time spent there does not include gazing at either feet or their inevitable adornments. But I can state, with a certain sense of wonderment that in Mastatal the footwear of choice is the croc. This trend has been occurring for quite some time now in this small jungle enclave, and the commonplace nature of the croc easily confronts the inquisitive mind. How did they first arrive? Who was the first intern that strolled off the bus with a pair on their feet? Did everyone immediately overlook their aesthetic faults (it is generally assumed as fact that crocs are ugly) and recognize how perfectly designed they are for Ranch life? □



Background Scenery

After a massive shoe rack clean out it was discovered that over half a dozen recently and long deceased pairs of crocs were in existence at the Ranch. Where did these all come from? Do they breed and multiply when stuffed and forgotten in the back of a humid shoe rack? And how did they become so thoroughly worn out? A careful observation of the croc creates more questions than answers, but it does answer one important question: what to wear in Mastatal? □

Whether arriving for just a few days or spending many months, we can finally answer the Frequently Asked Question of what footwear to bring, and assure you that crocs will treat you well here. Quick to dry, easily rinsed off, kicked on and off with ease, they match many of your jungle foot wear needs. And it is not just foreigners who are excited about crocs, bring a pair down and you may match Don Chepo. Even Juanico, he of the bare foot, glass crushing, flintstone feet, can be found with crocs on now and then. Of course it is important to keep in mind that there are many croc replicas these days, but rest assured any similar brand will do. Not surprisingly, since they are all made in the same factories in China, they wear down at similar rates, which bring us to the most important question, how are so many crocs so thoroughly destroyed at the Ranch. □

It seems that crocs and their now commonplace knockoffs go through a pattern of wearing out that wholeheartedly competes with nature's best decomposition methods. The first piece of the croc to go is the heel strap. One button pops out and the next thing you know the whole strap has disappeared, oddly resurfacing a week or month later in a bag of humanure or on the trail to the Rio Negro. □

Next begins the slow and steady thinning of the soles. Within a year the crocs go from comfortable sandals to swiss cheese on rocks. Between the melting sun, gnawing insects, and eroding rains, there are a plethora of jungle mechanisms that eat away at croc undersides. □

The final gasp of the crocs comes when the toes eventually blow out. After careful study and documented observation it is apparent that the blow out is caused by either too much futbol, microorganisms eating toe fungus, or Timo borrowing one's crocs for a half day and doing whatever he does to destroy footwear. Many folks have attempted to postpone this inevitable decline with lots of duct tape, which works for less than two hours of use, maximum. The reality being that the jungle eats crocs. □

Despite this, crocs remain ever popular, greatly outpacing their competition; tevas, chacos, and the random flip flop purchased in Puriscal that breaks in approximately 26 minutes. In a recent survey 72% of former interns would bring crocs if returning to Costa Rica, but 83% cannot afford them either way, being poor hippies. Interestingly enough, the same survey reported that 98% of former interns thought crocs made their feet look ugly. Appearance may not be everything after all. □

In conclusion it is apparent that crocs superior traits far outpace their negative ones. It would be pertinent to continue this observation throughout Costa Rica, perhaps first at the beach. Do we dare dream that the company producing such fine footwear would be willing to sponsor this trip? Anyone work for croc?

by Scott Gallant

Comida Corner: Fermentation Poetry

Cabbage cabbage
Chop it up
Nappa makes the dopest stuff
Fine green onion
Bounce real good
Garlic kicks it in the hood
Tamari dont be sorry
Dream boat to tommorrow
KIMCHI QUESADILLA gonna cruise away your sorrow
Cayenne dust
fer-ment-ed won-der-land
Never gonna rock a scramble band bland
Come hither ya'll
KIMCHEE BANGERS!
Munch from dawn to dusk
Unscrew the mason lid
Snort the heady musk
Be not affraid
Optimals' damn funky
Vining through the jungles
of the kimchee monkey
Keepin it fresh
One minute at a time
My chi
Your chi
Kimchi
DEVINE

Jodee Adams-Moore



Bagel Toppings on the Lazy Susan



Campeones

Futbol Follies: Clearing the Field

The field's been cleared! The perfect combination of machetes, weed wackers, and horses has the *dormilona* and *manzanillo bajito*. One of the clearest signs of the approaching dry season is the back and forth thump, thump, thump of the ball on the plaza as you finish up your work day, reminding one of the need to play. Start stretching legs again, as the rain fades away, the season approaches. The icing on the cake, the tidy piles of mulch! Gathered up and thrown in the truck, protecting our young fruit trees from the harshness of the dry season. *Vamos a la plaza.*

Inspirational Impressions: Happiness

"The best and most beautiful things in the world cannot be seen or even touched. They must be felt with the heart. Wishing you happiness. ☐"

-- Helen Keller

Abrazos,

The Ranch Crew



Olivia enjoying a Soncoya