

Polyculture Farming Must Serve As The Foundation

Last January I went on a road trip across California with my brother Adam in my Aunt and Uncle's VW Camper. I remember the awe we experienced as we gazed out the window at hundreds of acres of grapevines young and old. As we traveled along the countryside and outskirts of cities, we tactfully dodged mudslides in Big Sur, flooding, 80 mph winds in San Luis Obispo, where we hunkered down for the night at the [El Chorro Regional Park](#) next to the [Botanical Garden](#), and a snow storm in Yosemite. Luckily the highway apps allowed us to safely maneuver our way between two beautiful National Parks in the winter. If you haven't visited [Yosemite](#) or [Joshua Tree National Parks](#), they must be on your bucket list!

I never really thought to consider viticulture as a thriving monoculture movement until I was bombarded with rows of vineyards in my peripheral view. Just as the picture indicates, there's a succinct system in play within the viticulture industry and it's hard not to miss the lack of biodiversity in this industry alone. While there is a cover crop of grass in between the rows, there are other solutions that could be utilized to make viticulture production more sustainable. Encouraging [organic viticulture](#) is an ongoing debate but there are winerys all over the globe that work with nature to create a wine that is better for all living things.

In the twenty-first century the "tri-lemma; food, fuel, and the environment," are the driving forces that should propel biodiversity and agrobiodiversity. Power postulates that innovation is thwarted by decisions that farmers must make in response to policies and market trends, with landscape changes devised to meet these demands (2009). Power presents the dilemma that ecosystem services must support and detract between agricultural services and ecosystem services, and that they must be supported by biodiversity (2009). I believe that farming methods used to cultivate crops, like polyculture vs. monoculture, play an essential role in biodiversity and agrobiodiversity.

Ecosystem services must incorporate polycultural agricultural systems in order to build the foundation for more sustainable

food systems. Landis, Wratten, and Gurr (2000) previously discussed how monocultural cropping systems prevent the occurrences of beneficial insects to run their course due to the use of pesticides, and how polycultures provide a welcoming environment for multiple species to coexist and work with nature over time. Polycultural farming methods should serve as the foundation of policies and programs.

Agricultural systems are implemented as a result of agricultural practices driven by the demand in global markets (Power 2009). Agricultural systems must support alternative landscapes like permaculture in order to be effective at maintaining conservation, resource recycling, and water harvesting, while creating more biodiversity (Conrad 2013). Hesterman states that we are chipping away at transforming the food system through a systems change, emphasizing that we can't afford to wait, "we need to act more directly and forcefully now" (Oran B. Hesterman 2011, 43). Furthermore, policies should mandate that farms incorporate "adaptive landscaping" (Power 2009) on their farms in order to receive funding, and claim agricultural exemptions. Insisting that giant monoculture viticulture farms adhere to [biodiverse systems](#) would provide more sustainable solutions for dealing with drought.

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Sustainable Opportunities in Central Texas

Hi y'all! Hope 2017 has kicked off to a great start! I'm super excited to update you on all of the great sustainable transitions that have happened in the past few months! For those of you who were able to attend the Mother Earth News Fair in Belton, Texas in February, it was great to see you and thank you so much for attending my workshops! In case you missed either of them I'm pleased to tell you that you have another chance to attend the [Small Farmer Value Added Workshop](#) if you are in the Central Texas area this summer! I will be teaching that class June 22nd-July 27th on Thursdays from 6-9pm at Austin Community College through their [Sustainability](#) Program! Did you know that ACC offers the only sustainability program in the state, as well as many other awesome [home and garden](#) courses?

The Small Farmer Value Added Workshop is for beginning or existing farmers who want to incorporate a sustainable, holistic, values-based system that additionally brings to market niche products to help generate more revenue. Workshop will cover a wide range of topics including Texas Cottage Food Laws/Production/Food Sampling, Waste

Management, Sustainable Marketing, Triple Bottom Line, Certifications, Whole Farm Planning, Branding, Agrobiodiversity, and Resource Development. There will be individual and group activities as well as a student workbook provided.

As a Farm to School Ambassador for the Sustainable Food Center and Austin Independent School District I have really enjoyed engaging elementary students during lunch by offering samples from local sustainable farmers! AISD has been integrating the salad bar at various schools and 135 schools are a part of the Farm to School program in Austin! It has been a refreshing opportunity to volunteer on behalf of this social sustainability program! This past week we distributed a cilantro, carrot, and lime juice sample that the kids loved! Also check out School and [Community Farm Stands](#) or weekly SFC farmers' markets which also allow customers to use SNAP and WIC benefits. SFC F2S team assisted with citrus fundraisers offered at some of the schools this winter from fruit grown in the valley. Above is a picture of some citrus I grew last year.

Chicken Flock Transitions

It's nearly December already and we haven't had

our first freeze yet. But, there is a chance that the predictions may be wrong and we have one tonight. For the past 2 years we have had our first freeze by November 15th. We are only a few days past, and I'm holding out on our green tomatoes, sweet peppers, and hot peppers that aren't quite ready. I'm also created temporary low tunnels for nightfall in the event of a freeze. I suppose I must cut some of the herbs too, if I plan on preserving them for winter (it did end up freezing as I'd predicted! It tends to be roughly 4 degrees cooler in my backyard probably due to the greenbelt). Which meant a busier day in the garden removing all of the frozen plant mass. The bees and butterflies, especially the Monarchs, have been migrating through here the past few weeks. I saw the last hummingbird pass through and our regular clan mid September. They seemed to be on schedule. I read that if you keep a feeder up throughout the year you may likely see a few of the more rare species. I may test this out this winter just to see.

We have a new flock of 12 chicks. This will be our 4th flock to date. So far our second flock was by far the most superior health wise and we selected them from Ideal Poultry in advance. For whatever reason we didn't fare well with our selectively bred spring flock in 2016. They weren't given an immunization shot and perhaps that's what did them in, or the heavy rains and potential chemical run off from neighbors, who knows. Our place has been

pesticide free and "organic" for 7 years now. There were a multitude of issues with this flock and after contacting experts from various purveyors including Fertrell and Penn State experts, and doing a necropsy, our tests were inconclusive. We didn't send them to A&M either.

The interesting thing is that the first days of a chicks lives are imperative and you may not see results of their first 5 days until weeks or even months later. So perhaps it was the feed, this seemed to be a concern when we lost a few chicks. We didn't have this issue in the past using our favorite local feed mill, but all ideas aren't off the table. We found ourselves giving them regular Vitamin E doses in their water when we thought it was feed issues. Again, any developmental issues that happened in the chicks first 5 days could have very well been the culprit.

We once again ordered a flock from Ideal and after 2.5 weeks old they are happy, lively, vivacious, and flighty as ever. In due part to the fact that we have Americaunas and they tend to be wilder to the core. We had a 20% success rate with our selective breed flock of Barred Rocks last spring, pretty brutal. One gloriously handsome Rooster that we recently culled (we aren't supposed to have chickens, and he was no exception since he crowed at all times of the day and night, but we did almost have him for 1 year, he was spunky scaredy cat too), and one hen are all that remain

from that flock.

We have a small backyard flock; 12 elder hens (3-3.5 yr olds, 8-2 yr olds, 1-nearly 1 yr old), and 12-2.5 wk old chicks (4 Black Australorp, 4 Cuckoo Marans, 4 Ameraucanas). We have learned a lot, and experimented a ton! From building multiple brooders and chicken coops, to experimenting with various dual purpose breeds, visiting multiple farms, researching how to sex chickens, to culling them and dissecting them, attending workshops, tours, clubs, fairs, and events. We are not chicken experts but we have had our share of trials and tribulations that would make one give up. Since we are a fan of pastured organic chicken egg production we also joined APPPA last year and nearly launched a joint venture with a neighboring farmer to go into a larger small scale pasture raised chicken egg production operation. I wasn't quite ready to handle that operation on my own but it's in my husband's mind that's what he wants to do when he retires. We shall see. Until then, we will keep our backyard flock manageable and try to be as simplistic as possible. I must note that this time instead of using a 250w heat lamp we used a heat mat and it has cut our energy bills in half. Once I placed the chicks in the brooder on our back patio, I also added a reptile black light for additional warmth. They seem to be fine and we are pleased with the savings and the hassle. Plus they have normal sleep patterns without a light on all of the time. One thing that has remained

constant throughout all of the changes is that we harvest rainwater and the chickens love it as their main source of drinking water.