

AJO CENTER FOR SUSTAINABLE AGRICULTURE

Heritage Grain Growers Field Trip – Friday, July 12, 2013

Kelly Watters of Somos la Semilla organized a fantastic tour of three Southern Arizona farms participating in the Heritage Grain Growers Collaborative project, which promotes growing the forgotten and rare heritage grains White Sonora wheat and Chapalote flint corn. Although the grains project was a great excuse for getting the tour together, the real benefit of going on the tour was the chance to see three very different approaches to farming in southeastern AZ – each one a unique response to various needs in various communities, but all three dealing with the identical issues of biodiversity enhancement, invasive weeds and sustainability.

The first farm we visited was the Native Seeds/SEARCH Conservation Farm, just north of Patagonia. This farm is dedicated to growing and conserving native crops and creating seed stock in order to maintain the vitality of the two thousand varieties distributed by Native Seeds/SEARCH. Farm Manager Evan led us on a tour of the farm, showing us a field of various varieties of corn and explaining how corn self pollinates – with the male tassels dripping pollen on the silky female hair strands below. He told us how in order to prevent cross-pollination they have to cover the tassels and the tops of the cobs with paper bags every night. He then showed us more fields with various types of corn, becoming more and more animated and not even noticing that his bare feet were being devoured by ants. Moving away from the anthill, he led us over to another field, which had become a no-till project based on a series of mistakes, missed opportunities to harvest, and malfunctioning equipment. Evan talked about the various challenges of the no-till method, including the fact that planting often involved the use of a pickaxe. However, no-till avoids exposing topsoil to the sun and the damage caused by disturbing the soil's life network. He showed us various other successes and failures and explained how each was a learning opportunity, and stated that in the past the emphasis in agriculture has been on maximizing yields, while now the emphasis should be placed on finding the most optimal yields, taking into account water use and topsoil maintenance. He continually emphasized the need for seed saving and the importance of agrobiodiversity, noting that nature is powerful and complex, and that the natural ecosystem had to be incorporated into the field, such as promoting the hosting of beneficial insects and bacteria. He also talked about switching from growing biomass/cover crops in the winter to doing it during the summer, which may be viable in Ajo (if we could get enough rain!). He noted that dryland farming often has lower yields than irrigated fields, but sometimes has larger ones; sometimes the birds would attack the irrigated fields but leave the drylands fields alone.

We left Patagonia and headed for the Avalon Gardens and EcoVillage in Tumacacori. We were greeted by their farm manager, Tarenta, who invited us to have lunch under a shade structure by a pond surrounded by lush greenery. We then toured the village's fields and talked about their approaches to feeding their 100-member strong community. They also talked about agrobiodiversity, and its benefits in everything from fighting back their ubiquitous Bermuda grass (a legacy of the property's days as a 160-acre ranch) to the development of their food forest, which is starting to turn into a jungle! The fruit and nut trees which they planted just a few years ago will eventually provide sufficient shade and nitrogen fixing to host efficient and productive gardens. They showed us their wonderful multi-harvester, which is no longer made and which they had had to import from Wisconsin. This led to a discussion about the lack of agricultural equipment designed for small-scale farming, and how work would have to be done in this area in order to revive the family farm and small-community farming concept.

We then saw their wonderful cob oven and talked to one of their bakers, who uses a wild fermentation method to keep his yeast, and bakes using a mixture that includes white Sonoran wheat. We toured the fields and saw the strips of “black mulch” – black plastic sheets which keep the weeds down and the moisture in. We also saw (and tasted!) their harvest of white Sonoran wheat kernels – two huge bushels in huge plastic sacks which they had bought for \$15 each from brewers in Tucson.

The focus at Avalon Gardens is to feed their entire community from what they grow, and they also run a CSA. They are always looking for ways to improve their yields and their techniques, and it is clear that they put a lot of time and effort into their operations. They are a gold mine of information and are very willing to share their hard-won knowledge. But their efforts are not paying off just in the gardens, but in the unique buildings and landscaping too. What a beautiful environment they are creating in this hidden corner of Arizona!

Everyone was also invited to their Earth Harmony Festival on October 5th and 6th, which will feature organic garden and eco-village tours, music, speakers, informative booths, food (of course!), camping, a children’s village and theater.

The last farm we visited was Forever Yong Farm, near Arivaca. After a tortuous drive we entered a compact valley with a wash running alongside the farm. We were met by John and Yong, who showed us how they manage to run their sizable operation without a lot of infrastructure, mostly by being extremely resourceful, i.e. storing their garlic in the back of an old panel truck, and washing all of their produce in just one kitchen sink.

Forever Yong has an excellent well, which only needed to be drilled 150 feet down, and the valley bottom has excellent soil. However, in order to succeed as a commercial grower, John has had to turn to growing certain crops in greenhouses, which he says present their own challenges, such as pest control. He is currently moving away from organic sprays, which he finds just aren’t effective, to using biological “weapons” such as beneficial insects. Since Forever Yong is a commercial operation, they do more monoculture planting, with 750-foot-long rows dedicated to individual varieties, as opposed to the intercropping seen at Avalon Gardens or Native Seeds (except where they are trying to prevent cross-pollination) – if you are not familiar with intercropping, you can also see it at all of the Ajo Center For Sustainable Agriculture’s gardens! They also do a lot of watering, since they have the resources (the recent rains had brought the water table up to just 40 feet down!). All of this results in their incredibly good-tasting produce, which they served up as salad and roasted veggies for dinner and beautiful melons for dessert. If you want to sample some of their excellent produce, you can find them at various farmers markets in Tucson or buy it at the Food Coop on 4th Ave in Tucson.

All in all this was one of the best field trips (both literally and figuratively) that I have ever been on. The three farms all have very different approaches and goals, but are all fine exemplars of the modern local natural foods movement, and all are modeling methods and consolidating knowledge that will become increasingly valuable as our efforts to create a larger supply of healthy local food continue to expand. Although Ajo’s climate is much drier and soil much less fertile than those in southeastern Arizona, much of the knowledge and many of the techniques and approaches we saw on Friday can also be applied here. What we all share in particular is a belief in stewardship of the land and water and the attempt to find sustainable methods of small-scale farming and community building which can be used as benchmarks for the future.