

Interview

How to cultivate an ecological farmer

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INTRODUCTION

The 2012 Quivira Coalition conference was my second. I had come the year before to hear the likes of Christine Jones, Doug Weatherbee, Greg Judy, Sara Scherr, and David Montgomery; I came back to hear Allan Savory, Gabe Brown, Jill Clapperton and a group of other amazing speakers in 2012.

At this second conference, I noticed that one wiry, gravel-voiced woman shot up her hand after every speaker. She asked questions -- tough questions! -- or commented on their speech, and I could see that whoever was at the dais took the audience a little more seriously because she was there. I learned from her as well as from the scheduled speakers.

Luane Todd is simply a dynamo of agricultural wisdom and enthusiasm. She was a Texas city girl whose husband convinced her to move to a rundown Ozarks ranch to raise cattle in 1975. By the time he left 11 years later, she had fallen in love with the place -- with the rolling wooded hills, the rhythms of nature, the animals and the promise of the grassland. She knew that if she was going to run the ranch successfully by herself, she had to find a better approach than that urged by the ag experts -- a costly combination of tillage, seed and chemical purchases, and visits from the vet. Todd became an ecological pioneer, figuring out how to work with nature so that her land, animals, and cash flow thrived.

Now retired, she reads extensively and travels to conferences to build upon her own hard-won wisdom and pass it on to the next generation of farmers and ranchers.

Questions from Ryan Sitler for a Growing Culture

RS. Give the readers a little introduction to you, where you're from and what it is you do these days.

Luane: It is with humility and respect that I shamelessly 'borrow' the title of Fred Kirschenmann's latest book *Cultivating an Ecological Conscience* and tweak it to tell my story which I will call *Cultivating an Ecological Farmer/Citizen*.

Interesting side note: long before I knew him, but in the same year I began my journey, Fred told a class of graduating high school seniors that "education is like a baseball mitt---it extends your reach so you can catch balls you would otherwise miss". That is a beautiful way to describe how I feel about my life although I would not have thought to use that analogy.

Education, specifically educating myself, has been an important part of my life for as long as I can remember. Lucky for me my parents and my local schools did an excellent job of teaching me how to learn. This has served me well over the years...how to ask the right questions to get useful answers.

That skill has opened more doors into worlds to explore than I could have imagined.

About the same time Fred made his baseball mitt analogy I was embarking on a totally new life path which continues to occupy me today. I had been a typical stay-at-home wife and mother in suburbia. I didn't even flower garden let alone food garden. I was 35 years old when my husband decided we

needed to flee Houston for somewhere less congested and hopefully safer for our two young children. It wasn't exactly my idea to leave the big city but I said, "Why not!"

In some ways I think I am a throwback to the pioneers who left the more or less comfortable life on the Eastern seaboard and headed west into an unknown life in unsettled and somewhat hostile territory. Eventually we wound up on a rundown farm in the Ozarks of Arkansas in 1975. This city bred girl was in a whole new world with a lot to learn in order to live this new life.

I did not start out as a poster child for what we now call ecological agriculture...that term was not in use when I started farming and I didn't have enough knowledge in the beginning to think about farming in those terms. Like many other people I came to the ecological concept because it also made economic sense. I loved what I was doing but I could not afford to keep following the traditional 'experts' recommendations. As a fellow once said, "The outgo was eating up the income". I spent eleven years learning a lot about the cattle and the way of the land but I was going broke. The last twelve years I changed course, stopped all the inputs and let the land and the stock do the work while I did the planning. Now the income was covering the outgo with some to spare.

In 1998 I decided it was time to retire. I thought I was out of the agriculture world but that only lasted about 5 years. I realized there was a need for people with the knowledge of the production end of growing food and caring for the land to start advocating for these non-conformist producers who wanted to bypass the chemical based systems.

When you are doing the work on the farm you really don't have the time to encourage other producers and encouragement is vital. It can be very lonely when you are the only renegade in the neighborhood. You also have very little time to educate the customers about the value of the products being produced and the methods being used.

We can't expect the public, most of whom are at least 2 generations away from the farm, to understand and appreciate the need for getting out of the industrial production model if we don't do at least as much publicity work as the agribusiness complex does. It does not necessarily take a lot of money to start this campaign but it does take time and that is what I have now so that is what I am doing. In a way it is sort of like the Johnny Appleseed approach...scatter the ideas everywhere you can and engage people where they are...get them excited about the possibilities...the producers and the customers...those concerned about what is happening to their world and really are open to suggestion. It's worth a try.

In fact, I think we will make more progress attracting practitioners of 'Nature-mimicking' Agriculture (which is really the way I think about what I was doing; a form of Biomimicry if you will) if we also show that this can make us less dependent on inputs whose price cannot be predicted. We will also attract customers if those who are concerned about the quality and purity of their food see our production techniques as a solution to those concerns.

In some ways this idea fits into my other attitude. I am a card-carrying member of the Dumpster Divers Club which is another way of saying that I have practiced salvaging things and finding new uses for things most of my life. I think it is fun and it saves money while creating something unique and personal.

Regenerative farming is another way of salvaging and finding new uses for what you have. It's the way I found myself thinking about the end results of my work on my farm. The land was a gigantic canvas that Nature painted while I held the brushes and carried the palette.

RS: So how did you learn to do this style of farming and why? Did you have mentors or teachers? Luane: In a way I had the beginnings of the solutions to my problem already available.

My stock were Beefmaster cattle, a breed developed by Tom Lasater in South Texas during the hard times of the 1930's. It was a time when land had almost no resale value, and cattle had very little

more. Tom faced a similar situation to the one I found myself in. Necessity forced him to create a herd of cattle selected specifically to live off the land without outside inputs and multiply anyway.

Tom was also one of the first people I actually knew and had talked to about what would come to be known as sustainable, regenerative - essentially organic - food production while developing a land ethic much like what Fred talks about in his book. Sitting on the patio at his Colorado ranch late one afternoon, Tom casually suggested, "Nature is smarter than all of us. She'll do all your thinking and most of your work if you'll just get out of her way".

Letting Nature do most of the work is also the least expensive way to run a business based on the fruits of the land. Of course, as Benjamin Franklin might say, "If you can keep it functioning well." And that is the challenge: you can't destroy your resource base if you expect to stay in business. In this case the resource base for a livestock operation is the forage on the land. If that base is eroded you can't keep going.

The Beefmaster people, as an organization, also provided one of the first platforms for Allan Savory in the late 1970's when he came to the United States after being exiled from Rhodesia (now Zimbabwe). Charles Probandt, a Beefmaster breeder in San Angelo, TX, introduced Savory to our convention one year as, "That crazy Rhodesian with a hell of a scheme to sell wire." This was a reference to Savory's approach to forage management which involved, among other things, tightly controlling where and for how long the stock will be on any given piece of land in order to maintain plant growth and keep the soil covered. As soon as I started studying Savory's concept I realized it could be the answer to my need to have the land provide what I needed to continue producing cattle.

I believed in Lasater's hands-off ideas about stock selection, i.e. the stock have to be able to thrive without a lot of heroic interventions. I also shared his conviction that everything on the land was there for a reason and therefore should not be eliminated without real cause. This means not killing coyotes or prairie dogs or other so-called pests.

Savory applies this thinking to the various 'weeds' that so many people try to eliminate. Observation taught me that the cattle took advantage of these unconventional food sources often enough to suggest there was a reason for those plants to be there. A quick search of available literature tells me that many of these weeds contain high amounts of necessary trace minerals not available in the grasses. It would appear the stock know this even if we don't. I often wondered why the stock didn't eat as much purchased mineral/vitamin supplement as the salesman said they would. Now I knew. Before supplements the grazers seemed to do quite well eating what the land provided so long as these natural supplements were available. With Savory's monitored forage management system I believed I had found the only economically sound way to feed the cattle.

It made sense. Both men were letting the 'nature of your place' dictate how you managed it. Wendell Berry talks a lot about 'becoming rooted in your place' and I think this is how you learn what the nature of your place is—through the power of observation, attention to the details. Cooperating with instead of trying to dictate to Nature. More quickly than I could have expected the land and the animals responded to this approach. Almost immediately I was able to feed the stock year round from what grew on the farm. When I stopped trying to create a so called 'ideal' environment for the stock and let Nature dictate which ones could live well in spite of the conditions, not because of them, my life got a lot simpler. The stock and the land improved noticeably. The diversity of plant life over the seasons was amazing. There was always something green and growing no matter the season or weather conditions. And each year things got better.

I once asked Walt Davis, one of the first producers I had the pleasure of learning from in the early years of my education, if he thought there was a limit on how far you could carry this concept. He said he didn't think so because you were adding back fertility every season and the land was responding with increased plant growth which meant you needed to increase your harvesting to keep the quality where you wanted it. I often thought, and sometimes said, that although I knew there was not

supposed to be a perpetual motion machine I wasn't so sure after working with careful forage management using the stock as the tool to harvest and fertilize the plants.

RS: What were some of the defining characteristics of your farm?

Luane: Several things happened on the farm over the 11 years that I operated it as a grass farm maintained by the stock. Attention to harvesting the grasses at peak quality meant that I was moving the cattle to new forage at least every day. Sometimes, when the cool season grasses were growing very rapidly in the spring, they got moved 2 or 3 times a day because the grasses were trying to make seed and I wanted to slow down reproduction to maintain top quality.

In order to take advantage of this spring flush of growth the cows were also calving at this time and getting in shape to rebreed quickly. A side benefit of all this moving was that the calves got used to the program from the day they were born and they learned to pay attention to their mothers; to go when mother did. This is quite similar to what happens in any wild grazing herd...stragglers are fair game for predators; there is safety in numbers. There must be a latent memory of this, even in domesticated stock.

With all this human interaction, the calves were also very comfortable with humans. Years ago I read a piece Temple Grandin wrote about her evaluation of the value of a calm disposition in the performance of weaned calves in finishing situations. Since the calves were the cash crop it was worthwhile to have them calm in the presence of humans as this reduced stress to them from handling. When I took my calves to market the buyers noticed this; it added value as a side effect of the management program. After a few years I could call the buyers, tell them when I was coming and they were ready to pay me top dollar.

Moving the stock daily made it easier to notice any health problems that might develop before they got out of hand although I had almost no health problems in my herd. Having all the cattle in the same phase of production made feeding them based on nutritional needs much easier as well. In other words, it is difficult to do a really good job of caring for the stock and the land if all the parts are not coordinated and matched to need.

Another thing I learned on my own; at least I don't ever remember anyone talking about this...in Nature the females in the grazing herds are always together no matter what age they are. Using Lasater's philosophy I expected my heifers to get bred as yearlings and be mothers at or about age two. In the early years I would hold the heifers away from their mothers from weaning until they calved at two which was approximately 18 months. There is a distinct difference in the type of forage available in the growing seasons and the dormant seasons. I finally realized that if I put the heifers back with their mothers a month or so after they were weaned they would learn what a cow was supposed to eat in the winter which would be very helpful as they approached their first calving the next spring.

What I didn't think about until I watched it happen was that the heifers would stay close to their mothers that yearling spring and they would also get to observe a calving season in action before they had to do it themselves.

Heifers observing calves and cows

It was an education for me to watch the learning process in action. The first spring after I started this technique it seemed to me that there were almost no bonding problems with the first time calvers. I had not had much of that problem anyway but now I had none. I was always open to anything that makes things easier for me and the stock.

RS: What would you say were the strongest aspects of your operation?

Luane: By the time I left the farm it was fully capable of feeding the stock all year with only management of the harvesting routine by me. As a fellow said one time, "Trust your grass" and that's exactly what I did. It never let me down.

The change in the land was remarkable. Without any seed applications on my part there was a range of plants that I would not have imagined possible. I estimated that there were somewhere between 15 and 25 different desirable forage plants growing on all 155 acres. Each acre had warm and cool

season grasses, several different legume-type plants and a range of forbs (what we call weeds) that the stock ate at different times. Effectively that meant any acre could feed the stock any given season. Most remarkable was how many native plants re-emerged once they had a chance to grow without being 'nipped in the bud'. They had to have been there always but the stock kept them pruned to the point that I had no idea they were there. Every time the stock went into a new area I watched them and they ate the natives first. No wonder I didn't know I had them!

The native that surprised me the most was Eastern Gamagrass. I looked it up and found that at one time, before we took over management of the grasslands, this was the dominant grass from Canada to the Florida Keys; from the Atlantic to about 250 miles west of the Mississippi River. That is a very broad range of soil and weather adaptation. Gamagrass is a grass with the ability to grow 15 to 30 feet tall and put down a root system of equal depth. That makes it very drought resistant. Because it is so deeply rooted it can access nutrients unavailable to shallow rooted tame grasses; much like the forbs. Technically it is a warm season grass but in my latitude it was the first grass to start growing in the spring, usually in late February, and it was still growing in late November and many times into December. For a grass based system this is invaluable because you get 10 to 11 months of very good quality feed on a regular basis. The stock love it and I didn't plant it, Nature did. If I had not been tightly controlling the time and frequency that the stock could harvest this grass I would never have known it was on the farm.

Over time gamagrass became even more widespread on the farm partly because it could take full advantage of the other technique I used regularly. If I had a grass I wanted to 'transplant or spread' to a different piece of ground, I would let it make seed, then turn the stock into the area where the grass was, let the stock eat the grass and seeds, then 24 hours put them where I wanted it planted. It came out in this nice little fertility packet and the stock didn't graze it until it no longer tasted like dung which meant it was also nicely established. That is no-till planting simplified!

I let about 30 acres grow up with sometimes only one grazing during the growing season then used the strip grazing technique to have winter feed for the cows that I didn't have to bale and haul back into the field for them. Underneath the frosted stockpile there was always some green forage for the protein supplement a dry pregnant cow needs in the winter. You don't get that with baled hay. This technique is also a way to lay down even more fertility than I did with the normal grazing schedule since the cows are crossing the strip they grazed yesterday to eat today and they are dunging and urinating on yesterday's 'hay' line which is behind them today. It is a lovely tool for rapidly improving the fertility of a particular piece of land. Each 1000 pound cow deposits about 12 tons of fertilizer a year. That is literally worth its weight in gold, or actually, dollars, when fertilizer is selling for about \$1300 per ton these days. It will probably get even more expensive in the not-too-distant future.

RS: Also, what was the weakest point of your farm?

Luane: When you are a one-person operation there is a limit on how many different businesses you can realistically operate at one time. I had wanted to expand into direct marketing much like what Joel Salatin was doing. I didn't have the labor force necessary to do this. My farm was capable of generating more product to sell, but I had a logistics problem. I couldn't bring in the large stock hauling trucks necessary to move in a cost effective manner as many animals as I could feed. When I/we chose this farm it never occurred to us this would be a factor which further illustrates how productive the land had become.

As I approached my 60th birthday, after 25 years on the farm, I decided it was time to close this chapter of my life. I could not take the next step which was to increase the cash crop (actually change the focus of the farm) due to the logistical problems. I had no one to pass it on to, and I realized that I was in a rather dangerous business where the mechanical equipment might eventually get me. It is not smart to have no other human close just in case an accident happens. After two scary encounters I was ready to do something else while I still could!

One last point...this farm was a typical Ozark hill farm. It was very rocky and steep but it could grow grass once it was allowed to. What you can't do is plow or till it—too many rocks and way too steep. It never ceased to amaze me how well grass would grow in what was essentially a gravel bed.

Learning More—Sharing Knowledge

From The Soil and Health, Sir Albert Howard....

“One of the objects of this book is to show the man in the street how this England of ours can be born again.

He can help in this task, which depends at least as much on the plain efforts of the plain man in his own farm, garden, or allotment as on all the expensive paraphernalia, apparatus, and elaboration of the modern scientist more so in all probability, inasmuch as one small example always outweighs a ton of theory.”

At the time I was doing this tightly monitored forage management it really never crossed my mind that there was something else I could do to capitalize on the amazing fecundity developing on the farm. I had put two different groups of 4 young bulls on forage-only grow out programs over the years. One was at the Noble Foundation in the early 90's and the other was in central Arkansas in the mid 90's. These tests were conducted using small grains...wheat and/or rye. Both times, but particularly the second time, my bulls grew very well, at the top of their classes. They were a proper slaughter weight at 12 to 14 months of age. This answers the commonly voiced 'problem' of it taking too long to grow out beef animals on pasture. Most feedlot cattle are at least 18 months old before they are ready to process so I was already ahead of that curve.

16-month-old bulls, early summer, no feed

There is a lesson to be learned from the feedlot people about feeding cattle. They are fed smaller amounts of feed 3 or 4 times a day to encourage them to eat more because it is fresh and I think they are bored so something new is interesting. Based on what Gabe Brown is doing in North Dakota—no-tilling grain into permanent pasture then feeding his cattle through the winter and spring on those forages—I could have done something similar on my own farm with my own meat calves in the very few bottomland pastures I had. Utilizing the strip grazing technique I could encourage more consumption by giving the 'feeder' calves fresh forage several times a day. That would have been a way to finish beef for the table even faster than the feedlots if I had wanted to do it. It would have been an easy method for producing a value-added product to sell directly to the end user--the family in town buying food for themselves for instance. The only added expense would have been my time.

Ryan Sitler asks: When did you commit yourself to producing agricultural products contrary to the influences of modern chemical agriculture?

Luane: I don't remember ever consciously deciding to operate my farm 'contrary to the influence of modern chemical agriculture' as a philosophical statement. Remember that in the early days of 'organic' production our advisors told us this approach was more expensive than 'conventional' methods. What I did do was determine what it was costing me out of pocket to use the chemicals and determining that this was something I could change; I could set up a system that didn't need those costs. So many farmers deciding to eliminate one set of purchased inputs simply substitute another set of purchased inputs. A lot of these 'organic' inputs are at least as expensive as the industrial model inputs. Of course over time, as I studied the whole thing in depth, I also realized the adverse effects of the chemicals. But that was later; it was not the initial motivator.

I knew that my only real control over my business is the same one that applies to almost any other business...minimize the input costs. Quit writing checks for things you can do for yourself. By relying on the livestock to provide the needed soil amendments I could predict what my operating expenses would be from one year to the next. It is almost impossible to make an accurate projection about off farm input costs even monthly, let alone yearly, when input prices fluctuate so much.

Surprise, surprise...it wasn't costing me as much to be totally chemical free as it was the guys following the recommended procedures or the organic meat producers still following the industrial model type feeding program! Now I could bank more real money even in the standard sales channels. However, I had come to realize that my only chance to make a living on a small scale was to do what Fred calls 'develop a differentiated product'. I wasn't big enough to compete in the volume markets. My 'differentiated product' would be meats that had no chemical residues from the feed or the needle. Because I was also a seed stock breeder I could offer a particular genetics completely selected for production on available forages only...that was and is very rare. I did need to eliminate the middleman costs as much as possible.

To some extent, choosing to not follow the industrial, chemical production model is also a statement of principle...

One of the more insidious side effects of using chemicals, whether it is in a farming operation or in your own body, is that these interventions reduce the ability of an organism to maintain its own defense system. In effect we create a never ending drug dependency—we become drug dealers of a sort. Sir Albert Howard talked about this back in the 1940's but I hadn't read his book when I first started my farm. I don't know if Tom Lasater had read Howard when he developed his philosophy of raising cattle but the two men agreed about the end result of overriding the built in defense mechanisms of plants and animals. I have to concur. In the end the plants, animals and people have to live in the world as it is, not a world is constructed for them.

Of course there are some neat alternatives to chemicals...

Three-year-old Barbado rams

In the early 1990's I added goats and hair sheep to my livestock inventory. They are compliments to the cattle when it comes to using all the bounty Nature was offering. The sheep and goats work well together and mesh nicely with the cattle. In many respects this was another way to cooperate with

Nature's plan in that all these animals are grazers but they harvest different plants at different times. It is a substitution of cattle for bison and goats and sheep for deer, antelope, elk, or moose. Now I could mimic on a small scale what Nature does on a larger scale.

The goats and sheep can be very effective at controlling or eliminating certain unwanted vegetation if you put them to work at the right time. Now another 'bring in the chemicals' problem is pretty much solved and you have a possible cash crop instead of a check drawn on your bank account. What better reason to get off the 'modern chemical' train!

We talk a lot about resistance to implementing this kind of careful management and who is interested, or not, in what we are doing. Over the years I was surprised that some of the old timers understood exactly what I was suggesting and agreed that it was sound. They would say they wished they had had the ability to do this when they were younger, but the tool that made it economically feasible was the high quality and dependable electric fence which is a relatively new technology. Some of them implemented the ideas. Most did not as they were in the process of retiring.

Beginning in the late 1970's, I had used various cattle oriented meetings such as the Arkansas Cattleman's Association state conventions and a very popular yearly event for cattlemen in a town near me to promote my breeding stock. As I started to get such remarkable results with the land management techniques, I incorporated that information into my displays as well. Once in a while I would also be a presenter at some local cattleman's meeting. I developed a way of talking about my concepts and results that many producers enjoyed and appreciated. Temple Grandin talks about 'thinking in pictures' and I 'talk in pictures'. It engages the listeners in a way they can remember and relate to. This would be useful later, although I didn't know it at the time. Always I was promoting using the resources at hand and reducing input costs in that way.

In the late 1980's had I started writing a monthly column for Stockman/Grass Farmer magazine which was actually a diary of what I had done the previous month as I set up the grazing system. I also included the lessons I thought I had learned. Sometimes I would have to admit that something I tried didn't work quite as I planned.

One of the other writers coming on board for Stockman/Grass Farmer at the same time was Joel Salatin. Another regular contributor was R. L. Dalrymple, the head of the forage program at the Noble Foundation in Oklahoma. While I was implementing Savory's suggestions and using Lasater's stock selection criteria, Joel was doing his early work with the chicken tractor and R. L. was working with grass-finished beef from birth to slaughter. We were all working on optimizing the use of Nature's feed sources while maintaining and enhancing soil health and productivity with minimum to no outside inputs. We were taking advantage of the nutrient cycle that exists when stock harvest then digest and deposit the processed plant materials back where they came from.

During those years all of us writing for and reading Stockman/Grass Farmer were also talking about people like Andre Voisin, Sir Albert Howard, even Jan Bonsma, the stockman from South Africa who had influenced Tom Lasater and Allan Savory, plus the work being done in New Zealand on strictly forage production systems. At our conferences in Jackson, MS, there was a lot of learning going on.

In the early 1990's I put together three other producers here in Arkansas, and we did a research project for the Southern Sustainable Agriculture Research and Education program to validate the results we were getting using managed grazing. I was conducting regular tours of my farm, which

were well attended by people in this area but also from other areas, people who were following my columns in Stockman.

Field day with cows

I went to Joel's farm in Virginia one year and I attended the monthly 'Talk and Tours' that R. L. conducted at the Noble Foundation in Ardmore as often as I could. As interest in this management technique spread there were quite a few gatherings in Arkansas, Missouri, and Oklahoma as well, some conducted by the traditional information sources such as various extension personnel as well as some NRCS people. Some state agencies were more receptive than others but we learned to take advantage of as much interest as we could.

RS: Does anything stand out in your mind as being the biggest shortcoming to being a farmer?

Luane: Not everyone is suited to the self-motivation and self-discipline required if you are your own boss and make your own schedule. To some extent, particularly if you are a single woman, there is the issue of not being taken seriously but that happens to the men also, especially when dealing with the academics. There seems to be an institutional bias that says the man in the field doesn't qualify as an expert because his input is not replicated research results; it is only observational. The problem with replicating results for validation purposes is that Nature never exactly replicates conditions from season to season let alone from year to year. So long as Nature is in charge of conditions there can be no absolute replication to conform to research protocols.

Fred pointed out in a presentation in 1989 that "organic agriculture is derided by agriculture experts, frowned on by the United States Department of Agriculture and ridiculed by many farmers". Twenty years later this is still true. As Rodney Dangerfield used to say, "I don't get no respect", and many times it feels that way. If you are doing something as contrary as what we grass farmers are doing we are definitely marginalized or ignored. That bothers a lot of people...not being accepted. It can be a downside of choosing to farm as a business. Most of the time I just considered the source and continued doing what I thought was right but I admit this takes a lot of conviction on the part of the individual. Not everyone is comfortable with rejection or outright ridicule.

When the Schools of Agriculture morphed into Schools of Agribusiness teaching high tech, modern, 'best management practices' they became the tool to legitimize the industrial agriculture paradigm. For that reason it will be difficult, but not impossible, to get good information to help you implement non-fossil fuel based agriculture. For the most part you have to find alternate information sources outside of the usual channels and that can be time consuming. Depending on what kind of farming you are doing, time to do this is limited. The vegetable and fruit growers are more time-limited, I think, than the livestock people.

I would also strongly suggest regular 'community of interest' fixes. Go where people are congregating to discuss what they are doing to implement these somewhat strange techniques. Spending time, in person, with others who share your attitudes is good for the health of your mind if nothing else. Everyone needs positive reinforcement once in a while and humans are herd animals who benefit from the companionship of likeminded others.

Where do I go from here—Wheels Within Wheels

Understand that 'we contrary farmers', to use Gene Logsdon's definition of himself, 'are a strange breed and we will often be lonely in a crowd of farmers. 'In general 'it is always a bit lonely when you are the scout because you are usually so far ahead of the herd'. But that is what we are...scouts for a way to survive and thrive as things change.

Ryan Sittler asks: Is there anything specific that you learned along the way that you think is important for people to know or understand that they may not already?

Luane: Anyone planning to do an alternative agriculture system-- what I like to call the original conventional agriculture because it is what was practiced before the industrial model we have now-- will have to give up the notion so strongly ingrained in the Western, specifically the American, psyche that humans can 'control Nature'.

Nature makes the rules; we don't. We will not be successful with regenerative, lasting, realistic, place based agriculture systems so long as we think we can remake things to suit us.

I like Fred's statement that "we cannot 'save the planet' in terms of 'preserving things as they are'. At best we can engage the biotic community in ways that enhance its capacity for renewal".

For a long time I have argued against the notion of saving the planet in part because I think the capacity for life on this planet will go on with or without humans and it will be the humans who cause themselves to go extinct if they continue to try to override Nature.

Fred adds that "health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity".

This should be the real goal of all we try to do...make our decisions about what practices we use based on maintaining the health of the soils, the plants, the animals and the people.

My experience suggests that attention to these things allows Nature to do most if not all the work and do it well. An excellent source of inspiration is F. H. King's *Farmers of Forty Centuries* for how to set up a self-renewing food production system. Sir Albert Howard's *An Agricultural Testament*, possibly the main source of inspiration for J. I. Rodale, and *The One Straw Revolution* are also very good resources.

RS: Do you currently have any themes or specific focuses that are motivating factors for the work that you do?

Luane: We are outliers in the current system and we will have to engage in a customer education program if we want the public to demand what we produce.

Because I don't have the responsibility for a piece of land I can travel more frequently to the places where people are gathering to explore alternatives. I can revisit all the work done by so many pioneers of the ecological solutions for humans and their other-than-human compatriots. There is much to be learned from these pioneers and this knowledge should be part of our deliberations. I can add my voice and experiences to these discussions to show what can be done. Along the way I am meeting and learning from the people who are actively doing these things now. This is a positive, being able to cite current work. With luck I can be a motivator for those still in the 'thinking about it' mode.

There is an even larger need as I see it...

What I hope to accomplish is to help define the barriers to moving forward with building a complete food system that can be an economic benefit to more people in an area than just the farmers. People need meaningful, productive work and that is in short supply all over the United States. A complete food system needs more contributors than just farmers.

Fred Kirschenmann brought up an interesting thought from that paragon of capitalism, Adam Smith...

-The Ideal Market must have---

Community—many small farmers, artisans, buyers and sellers

Entrepreneurs-- function within a set of commercial rules, sanctioned and protected by the state, that prevent business monopolies

Capital-- is locally rooted, owners living and working where they do
business Free and open markets available

-Apart from "community" and a framework of justice, competition becomes destructive. -Trade is only "free" when people are free not to trade.

As things stand now, the agribusiness complex has defined the rules of engagement with the customers to exclude competition from smaller, locally based producers, processors and distributors. If you consider all the steps necessary to move food from the farm to whichever table you want to put it on there is quite a lot of work to be done; more than any one person can do alone. Agribusinesses understand that the real monetary reward attached to providing food for people is the retail business.

That is the largest part of the cost of food...the processing and distribution segment. If we are to become true players in the provisioning of the public we have to establish a larger presence in this segment.

In their book *Food, Society, and Environment*, Charles Harper and Bryan Le Beau ask readers to envision the food production system as an hourglass. On one end are millions of farmers, ranchers, and farm workers raising crops and livestock; in the middle are a small number of companies that carry out the packing, processing, and distribution of food; and on the other end--purchasing food

from that small group of processors and distributors--are millions of customers. That small neck in the middle of the hourglass—the packers and processors—may not be a part of the food chain that we often think about. But packers and processors have an immense amount of power over the shape of our food system, and the power that they exercise can have harmful effects on both ends of the hourglass—closing markets to independent producers and affecting the price and safety of all food for consumers—as well as on the safety and health of the workers these processors employ.

We are dealing with a food supply system designed by agribusiness for the benefit of agribusiness that has become so normal to the average customer that it never occurs to her to question it even as she pays ever higher prices for the food she must have and for the compromised health caused in part by that food.

The key is customers demanding changing the rules to favor smaller scale production by more farmers, processors and distributors. . As Fred has pointed out “There is no one to champion the independent farmers’ cause in this squeeze” including the very entities originally established to serve small scale farmers...the Land Grant Universities. Wendell Berry discussed this corporate capture of the Land Grant system at length in his *The Unsettling of America* which was published in 1977. Even in the early 1900’s Sir Albert Howard was observing the beginnings of corporate capture which he viewed as a looming problem, particularly as the agriculture information sources were complicit in promoting the industrial model.

We have at least two generations of people who have accepted the corporate industrial model as the only thing standing between them and starvation. Re-educating our customers about what smaller scale, place sensitive food systems for can do for their overall wellbeing is a full time job that will need the attention of people committed to being spokespeople and advocates. It will also be imperative that many more producers come on line or the system can’t fill the needs of the public.

If the public were to refuse tomorrow to buy from the corporate suppliers we would have a hunger problem because there are not enough growers to provide the food that would be needed.

To quote a new (to me) observer of the forces we need to confront, Anuradha Mittal one of the founders of Food First, has said, “Hunger is a social disease linked to poverty...any discussion of hunger is incomplete without a discussion of economics.”...“people are hungry because there is no money to buy food, not because there is a shortage of food.” As an example she points out that the Punjab region of India, one of the prime agriculture areas in that part of the world, grows abundant food that is mostly converted to dog and cat food for Europe instead of for the people of India who are having to buy imported food as a result of this agribusiness mandate. There are numerous other examples of this kind of insanity in most of the Global South but also in the U.S. where a good portion of the grains produced wind up in gas tanks or confined animal feeding facilities. It is probably worth remembering that the French Revolution wasn’t just about liberty and equality. There was not enough bread in Paris and Paris had been able to feed herself for a very long time with extra to trade. Hunger is a powerful motivator of unrest.

You can find similar statements in all the published works of people like Sir Albert Howard, Fred Kirschenmann, Wendell Berry and even the United Nations Food and Agriculture Organization and the World Bank. The last two also direct our attention to the unbelievable amount of waste in the food supply chain. We must address the question of access to food that we can afford and to paying attention to waste because this also speaks to water and fertility issues. Food wasted is also water and soil as well as labor wasted.

RS: Is there anyone or anything that we haven't covered today that you would like to specifically mention?

Luane: We must confront these issues head on...

Who is responsible for the barriers to entry, why and how do we address this?

As Anuradha Mittal says, “I don’t think it’s too much to say that destroying local agriculture infrastructure is a central function of food aid. Once these local farmers have been driven out of business the people of the region are dependent on the West (more specifically agribusinesses) for survival.” Based on my study of American agriculture the same thing has been a feature of our food supply chain for over 100 years, starting in the late 1800’s. Henry Kissinger said in the mid 1970’s, “...if I control the food I control the people”. The food companies have put a great deal of effort into making all the world’s people dependent on them for survival.

We have to rebuild the public's respect for the business of growing food but we also have to undo the regulatory issues that make it so difficult to do what we know how to do. A Tupac rebel once said about Peru, "We want to be able to grow and distribute our own food. We already know how to do that. We merely need to be allowed to do so." This is the heart of the matter. Ms Mittal further observes, as I have, that the powerful agribusinesses have built an entire economic and governmental structure to support themselves. It will take a concerted effort on our part to correct this situation.

In order to get more producers plus the processors and distributors required to serve the public need, several things will have to be changed. At this point most alternative producers have a rather narrow window when they supply fresh produce. That is good but it is insufficient to provide food all year. This is the segment of food supply where the processing and distribution system applies and it is where the agribusinesses have a definite advantage now. We must address the whole range of demand, not just the seasonal demand.

It is not enough for alternative producers to opt out of a system they reject. They will have to become actively involved in changing--that is, opening up--the operating environment in order to make a place for themselves and hopefully make what they are doing the normal method of supply. I don't think it matters very much in the long run if we are talking about producers in the U.S. or in the other countries, the ones usually called the Global South. Our methods of production require more people doing the work. Even as our producers secure their place in the new normal they must also bring in more help and stop looking at new people in the business as threats to their place.

In *An Agricultural Testament* Sir Albert Howard made this point—"Nature never attempts to farm without animals". This fact seems to be in ill-repute these days as so many people try to again exercise the right to tell Nature what is and is not correct; where mistakes have been made; what we must do to correct those mistakes. Think about whose interests are served if we demonize a significant piece of the food growing system that has worked for thousands of years. Do the chemical/fertilizer companies really want us to know that we can do quite well without them?

Sometimes I think our alternative farmers are their own worst enemy in the sense that they resist cooperating with each other for the benefit of their whole food production community. They have fallen into the trap laid for them as David Korten says by "...global corporations who cooperate to force people to compete...the willingness to destroy local capital (in this case the other farmers producing food differently than the industrial model) for the sake of individual gain". So long as these farmers see each other as competitors to be bested they will be easy targets for the highly organized, coordinated industrial farming corporations. There is room and a need for all the foods this planet has and can produce. But we cannot accomplish the monumental task of producing this food without a much larger pool of food producers and their support systems.

In a way this need for more farmers, processors and distributors is the strength of alternative, small scale, place sensitive food production. At its best it offers a way for many people in all parts of the country to care for themselves and their neighbors at a time when industrial America is laying people off due to lack of demand for industrial products. No matter what else people require, food is number three on the priority list, right behind air and water.

At first we will be the only ones pushing for this to happen and we need to select people to speak for us who 'are us' even if they are not active farmers. The work of growing the food is a full time job and we will have to put aside our natural reluctance to seek outside help if we want to make the future better than the past. This could be the start of a re-education initiative—discussing the different, democratic trade arrangements we envision.

What other business needs more people to do the work than the alternative food production does. It is a system by definition designed to be implemented by many people in many places at the same time. I'll end with these thoughts---When making the decision to be a pioneer in this different way of doing agriculture "...there is no way to know if one is called or deluded. The only way to know is to jump in and find out".

Thank you Fred Kirschenmann for that insight...

The real Arsenal of Democracy is a fertile soil, the fresh produce of which is the birthright of nations. -- Sir Albert Howard, *The Soil and Health*

Howard viewed the "whole problem of health in soil, plant, animal, and man as one great subject." He further stated about his book *The Soil and Health*:

“One of the objects of this book is to show the man in the street how this England of ours can be born again.

He can help in this task, which depends at least as much on the plain efforts of the plain man in his own farm, garden, or allotment as on all the expensive paraphernalia, apparatus, and elaboration of the modern scientist: more so in all probability, inasmuch as one small example always outweighs a ton of theory.”

“If this sort of effort can be made and the main outline of the problems at stake are grasped, nothing can stop an immense advance in the well-being of this island.”

The man in the street will have to do three things:

He must create in his own farm, garden, or allotment examples without end of what a fertile soil can do.

He must insist that the public meals in which he is directly interested, such as those served in boarding schools, in the canteens of day schools and of factories, in popular restaurants and tea shops, and at the seaside resorts at which he takes his holidays are composed of the fresh produce of fertile soil.

He must use his vote to compel his various representatives — municipal, county, and parliamentary — to see to it:

(a) that the soil of this island is made fertile and maintained in this condition;

(b) that the public health system of the future is based on the fresh produce of land in good heart.

A healthy population will be no mean achievement, for our greatest possession is ourselves. Sir Albert Howard

Anuradha Mittal joins her voice to Sir Howard when she challenges us to

“Get involved. If power is not taken back at the local level nothing will change nationally or internationally.”

Ours is a powerful new story if we will tell it. Stories change minds as the advertising industry knows very well.

RS: I am interested to hear how you first got connected with A Growing Culture.

Luane: I met Loren Cardelli at the Prairie Festival in Salinas, KS, in September, 2012. Then I met you both in Albuquerque, NM, at the Quivira Coalition meeting later that fall. After much back and forth discussion you both contacted me to see if I wanted to contribute to your publication. I am delighted and honored to be invited to help with your work.