

From interns to farmers: taking the plunge from dream to reality.

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Most children growing up in suburbia dream of becoming doctors and lawyers, teachers and policemen. Not many kids in America's cities decide they want to be farmers when they grow up. However, there are an increasing number of young people exploring small-scale sustainable agriculture through farm internships and apprenticeships. More and more of them are discovering their passion for farming along the way, and taking the plunge towards owning and operating their own farms. That is exactly what happened to us. This article is about the steps we took to start our small farm, how we applied what we already knew, and what we learned through the process.

Like others, we were drawn to sustainable agriculture because it weaves together beliefs about the environment, social justice, education, healthy food, and community building. Unlike many of our childhood friends who struggle to find meaning in an office cubicle, we feel fortunate to have a profession that is both a livelihood and a way of living.

How did we learn to become farmers if we did not grow up on farms? Although we studied sustainable agriculture in college, it was not until we were farm interns and received hands-on, practical experience that we really learned what farming truly entailed. Translating that knowledge to our own operation has been a fascinating and exciting challenge. Yet even the most comprehensive internship cannot teach everything. We hope that through our mishaps and adventures this article can shed some light on what is necessary to start a farm from scratch for budding farmers and their mentors.

The Big Challenge: Finding Land

In the fall of 2003, after finishing four combined years of internships and jobs on two successful organic farms in California, we moved to Emily's hometown of Tulsa, Oklahoma. Our dream was to have a farm that was big enough to support us financially, but small enough to operate without hiring employees.

Many people have asked us why we chose Oklahoma. First, it really helped that Emily had an existing network of support from family and friends here. Second, land is relatively affordable. And third, through preliminary research, we believed there was a high demand for local organic vegetables with vast opportunity for more suppliers.

Since we did not inherit property and we had no independent source of monies finding land was, and still is, our biggest challenge. We thought we could move to Oklahoma in the fall, buy land shortly thereafter, till it up, and plant a crop in the spring. We did plant a crop that spring, but not as we originally planned.

Neither of us had experience with real estate, and we had to start at ground zero. We wanted a farm within an hour's driving distance to Tulsa. This meant looking at a grand total of 15 surrounding counties! We had no idea how to find an agent for rural property spread out over such a large area. After numerous phone calls and visits to several real estate offices, we finally found a realtor willing to work with us who was familiar with our needs.

Although our idea seemed simple enough at first, we soon discovered that productive farmland is hard to come by in northeastern Oklahoma. We looked at countless properties in four months. We joked that if farming did not work out, we could always go into the rural real estate business. The fall quickly became winter and there were no properties that met our criteria of fertile soil, access to water, within our price range, and with at least ten acres of tillable land. There is some excellent soil right on the edge of Tulsa, but the majority is being paved over for housing developments, which keeps the prices far beyond our reach.

By the end of January 2004 we were starting to think that maybe it was time to pull out the classifieds and forget farming for the year when we found land to lease. Through a series of contacts we were put in touch with a family who owned acreage just on the periphery of Tulsa. They generously offered us use of two acres of horse pasture. To make the whole situation even more remarkable, they also had a 60 horsepower tractor, a harrow, and a rotterra which they were also happy to let us use. All they wanted in return was vegetables! Our dream was saved at the eleventh hour.

While it may seem like our experience is completely random, we think it is actually very transferable. There are people around the country who are willing to provide access to land, and even equipment, to beginning farmers. The tricky part can be finding them. It is very important to tell anyone and everyone that you are trying to start a farm - you never know who will be able to help you. We found our land through a labyrinth of people: the state organic inspector put us in contact with a woman in Tulsa working on local foods issues who put us in touch with her friends who own the land we now lease. It is a wonderful example of the importance of networking and leaving no stone unturned.

In retrospect, we believe that leasing was infinitely better than buying our own land during our first season. There are enough stresses and learning curves during the first year of growing without the added pressure of a mortgage. Yes, we will have to start over again when it comes to building up the soil and getting the weeds under control when we eventually buy our own land, but the benefits far outweigh the negatives. The biggest and single most important advantage was not going in debt while we were still learning about growing on our own in a climate different from our previous experience.

Even though we were originally against leasing, we now encourage all prospective farmers to consider renting during the first couple of years. At the end of that time, you will have a better idea of the local geography. Also, a more complete understanding of how your system operates and what your needs are in a property will benefit your business. Additionally, several successful years of growing are essential in applying for a loan.

On the Paper Trail: Research and Development

Finding land was just one aspect among the many facets of starting our own farm. As apprentices, farming felt like a state of being. In fact, it is as much a business as any other self-employed venture. Learning to think in business terms was one of the most crucial aspects of our transition into farmers. It was on this paper trail that we become aware of what we did not learn as interns.

We jumped into the administrative details through a series of research and development tasks. This was critical since it got us thinking about what we needed to do to get our farm venture initiated.

We started by writing a business plan. We read about business plans and began putting our thoughts on paper. This plan was not meant for a loan, like most business plans are, but for our own organizational purposes. Our first steps were based on researching marketing outlets, meeting our “cooperatition” (to borrow a great term we learned in California which refers to other farms who are your competition, but with whom you also cooperate in terms of sharing equipment and ideas), budgeting, and becoming familiar with local resources.

Many farmers have told us that the easy part is growing the food; the hard part is selling it. Our primary goal was to decide how we were going to market our produce. We wanted to replicate the model we learned in California. It entails a three pronged approach - farmers’ market, CSAs, and wholesale. Of course we would be operating on a smaller scale, but we wanted as many different venues as possible to spread our risk.

The farmers’ market was straightforward. Tulsa has one main market that has become very popular in the last couple of years. We sent out postcards to anyone we could think of announcing the farmers’ market dates to solicit customers. Almost all of these people came to the market at some time during the season. For our CSA we decided to keep the membership to ten of our family friends. The wholesale world was more difficult. In the fall, we called restaurants that we thought might be interested in local foods to see what we could grow that they would want to buy. Many restaurants were not accustomed to buying locally; nevertheless, a few did express an interest and we contacted them again once the season was underway.

We also wanted to get a sense of the state of organic vegetable farming in Oklahoma. It is important to know how many other people in your area are doing what you are doing. These farmers are an instant source of support, resources, and community. We made appointments with all of the nearby organic vegetable farms or those offering CSAs. Meeting with these growers was extremely helpful as they shared their experience about weather, customer demands, variety selection, pricing, and other locally-specific information.

The hardest part of writing our business plan was the budget. It was hard to anticipate all of our costs and project our income. We began by making a list of everything we remembered using in our internships. It is amazing how many materials are needed to plant vegetables on a couple of acres. The budget helped streamline the items we absolutely had to purchase the first year and to negotiate for the rest.

Other items we explored for our business plan were record-keeping systems, business structure and legal organization, and insurance. We also examined our target sales, developed a planting calendar and a harvest schedule, and explored government and private organizations working on sustainable agriculture. Ultimately, we were able to use our business plan format to successfully apply for a grant from the Oklahoma State Department of Agriculture.

By joining local sustainability advocacy groups, we tapped into a captive audience and benefited from a free source of advertising. We took every opportunity to list our farm on relevant websites. Although this is a strategy not likely to yield immediate results, it eventually led to customers, contacts, and even media publicity.

We touched base with our county cooperative extension agent, attended local farm shows, and began subscribing to trade journals.

The realization that we are not only a farm but also a business led us down a bureaucratic road. There were government agencies we needed to register with, fees to be paid, and forms to be filled out. We attended workshops offered by the IRS and the Oklahoma Tax Commission which helped us navigate the process. We attended classes presented at our local library on topics such as the difference between employees and independent contractors, applying for a sales tax permit, and setting up a small business accounting program. It was discovering the finer points of being a self-employed business owner, like registering for our Federal Employee Identification Number (FEIN), that finally helped us convert the dream of farming to actually becoming farmers.

Challenges Along the Way

Along the line of finances, we needed a sizable nest egg to live off of during our start-up months. We saved money from our internships and previous jobs, but we also benefited from having a cheap place to stay during our R & D phase. Getting the farm operational was a full-time job, but without any income. Anyone planning on starting their own farm should think through their financial needs (car payments, health insurance, student loans), and make sure to have an adequate amount saved to pay bills while still having enough for working capital.

Oklahoma is not vegetable farming country. This made finding equipment and supplies suitable for our projects somewhat difficult. We bought as much as we could from local hardware stores, building shops, irrigation stores, and used equipment dealers, but we also had to supplement by mail ordering from companies that specialize in small vegetable farm supplies. Finding a high-quality supply of compost for example, took weeks and was a source of major frustration. This is where we experienced the downside of a small farming community—there were not many people to turn to for help with resources.

Another challenge was the lack of access to credit for beginning farmers. We spent several months investigating loan options for working capital and farm real estate. Unfortunately, there are just a few. The Farm Service Agency operated by the USDA does give loans to beginning farmers at low interest rates. However, the loans take many months to process. Unless you are buying land from someone who can wait months to get paid, this is not a viable option. Banks and other credit institutions will not even entertain the idea of financing a farm operation until you have demonstrated two successful years of operation. Our only viable source of capital would have been asking one of our parents to cosign a loan with us. Ultimately, we used our own small savings to buy what we needed to get started.

Taking the Plunge

With business plan in hand and land under our feet we were finally ready to start putting our money where our dreams were. Our first purchase was a six hundred dollar seed order. We now knew that we were jumping in full force and that there was no turning back.

Ordering seeds was surprisingly laborious. We needed to figure what and how we were going to plant. We stuck with varieties we were familiar with and ones that do well in the hot, humid climate of Oklahoma (which we learned from our cooperative extension service). We took educated guesses on how much we would need. We had to accept that we were going to make mistakes, and we did. We over planted lettuce and broccoli - but in the process we learned which varieties do well and which do not.

In Oklahoma, spring arrives quickly. At end of January when we secured our land, we immediately started considering field preparation and greenhouse work.

With the help of a local farm couple, we constructed a small, economical 10 x 20 greenhouse. We bent EMT conduit (electrical tubing) to make the bows and used rebar and T-posts as anchors. We are proud to say it survived an Oklahoma spring which is no small feat (think "Tornado Alley"). To maximize the amount of space in our humble greenhouse, we used 200 cell plug flats. Even through our greenhouse may sound small, we can grow over 20,000 plants in there at one time!

While our plants were starting to grow in their propane heated home, we began the process of turning a horse pasture into a vegetable farm. As interns, the farms we worked on had their usual share of weed problems, but we could not help but look back and wonder how they ever turned their grassy fields into rows of beautiful crops. We made several passes with the rotterra and harrow, and then hand raked out the Bermuda grass (this is a noxious pasture grass that is a hardy perennial - it is nearly impossible to get rid of as it spreads through underground runners). This tillage method worked well by bringing the Bermuda up to the surface of the soil. The harrowing reduced the amount of soil still attached to the roots. Although hauling out all of that material took time, it was well worth it as it saved us hours of futile weeding during the summer.

Our next step was assessing our soil situation. An afternoon of digging with a soil probe showed us that our soil varies greatly throughout the field, from a clay loam to a sandy loam. A soil test indicated we were low in NPK. We bought 25 tons of mushroom compost from a local mushroom farm and started spreading it, along with some soft rock phosphate and granite dust, with a wheel barrow and shovel. We applied it directly in the bed furrows in order to maximize the amount of nutrients close to the plant roots. The plants responded well to this method, but our backs definitely did not. This was a lesson in the benefits of borrowing a manure spreader. Throughout the growing season we side-dressed with an organic granular fertilizer and foliar fed with fish emulsion.

Using a modified cultivator we made 30" raised beds. This system evolved from the equipment we already had on hand. Raised beds are critical in Oklahoma as it is not uncommon for storms to produce four or more inches of rain in less than an hour. The 30" beds worked well, but we decided later in the season we could plant more efficiently on the 60" beds we had learned to use in our internships.

By the end of February we were planting spinach and carrots with our Earthway seeder. We found the Earthway to be ineffective with most seeds. Towards the middle of the season we borrowed a Planet Jr. from the local land grant university's research farm which worked infinitely better. Planting is still a tricky task for us as we have not mastered seed depth or the optimal number of seeds per foot. On our internships we took for granted the farmers' ability to remember the spacing and depth requirements of each individual seed.

As the season progressed we realized why there is such a dearth of vegetable farms in northeastern Oklahoma - the weather and the bugs. Oklahoma has a reputation for producing tornados, but the real weather trouble is from intense thunderstorms that produce hail, wind gusts, and heavy rains. Luckily for us we only received hail once and it was very early in the season. On the other hand, we received several heavy rain storms that ripped holes in on our lettuce and actually killed tomatoes plants from water-logged soil.

We were also unprepared to deal with the pest pressure. Every week we seemed to notice a new insect that was wreaking havoc on our crops. Fortunately for us we have a fantastic cooperative extension agent who helped us

identify our wide range of bugs. We learned to accept losing some crops to diseases and insects. Our internships taught us the value of growing a diversity of crops and the lesson served us well.

A huge difference between established farms like the ones we worked on in California, and a new farm is the weeds. The weeds were overwhelming us. With a two person operation there is only so much time that can be dedicated to weeding. We wanted impeccably clean rows of crops, but eventually we learned to think of weed control as an on-going process. Towards the end of the season we rigged up an old C-shank cultivator to help weed one and two-row crops. Although it was not a perfect solution, it saved us our most valuable resource: time.

As interns we did not fully appreciate the maneuvering and juggling required to harvest in time for market, CSA, and wholesale orders. With several interns, farmers, and employees, picking and packing gets spread over many hands. When you are getting started, you have only yourself to rely on to get the work done. There were some harvest days when the strain of being a two person operation was pretty intense. If we did not get the produce picked ourselves, no one else was going to do it for us. We wanted to harvest crops the day before the market so they would be as fresh as possible. Harvest days were grueling, but also incredibly rewarding. Our "cooler" is an example of a satisfying innovation we devised. It is an insulated room in a barn with a window AC unit. We were able to keep the temperatures near 50 degrees even in the heat of summer. Learning to creatively solve our obstacles has been an enjoyable experience.

We tried to keep as many records as possible. Some examples of the records we kept are: daily field logs, planting calendars, harvest records, market journals of what we sold and at what price, and pest control and fertility applications. These records were extremely helpful preparing for the next year. We were able to determine which crops made the most money, which varieties did well, and how much time we spent on particular tasks. And though at the time we thought we were being too obsessive, there were still some details we missed. Looking up a reference guide on records for small farms is an excellent way to find out what you should be keeping track of.

In order to give aspiring farmers an idea of our costs, we have broken down some "typical" expenses a beginning farmer would incur on a similar acreage. This was one obstacle that we had a hard time anticipating before getting started, but is it key to deciding if you are going to have enough start-up capital.

- Seeds - \$725
- Fertilizers and compost - \$650
- Pest control - \$125
- Greenhouse construction - \$450
- Greenhouse supplies - \$550
- Field tools and supplies - \$1900
- T tape irrigation supplies - \$900
- Harvesting and washing supplies - \$500
- Cooler - \$350
- Market supplies - \$850
- Fuel - \$150
- Hardware tools - \$120
- Office supplies - \$350
- Utilities - \$500

Altogether we spent over \$17,500. That number includes a tractor for \$5500 and a pick up truck for \$3200. The lower you can keep your costs of course, the higher your profit. But many of these items are one-time expenses. Keeping track of your annual expenses is the best way to budget how much you can afford to spend on new equipment each year.

Lessons Learned

Our first year far exceeded our expectations in terms of sales. We were able to pay ourselves back the money we invested in the farm (this money will be needed for a down payment for property) and make a few major purchases, like our John Deere 820 tractor. In the coming years we want to focus on labor and back-saving equipment.

Without our prior farming experience and the guidance of the farmers we worked for, we would not have been able to begin our farm. Our internships gave us an automatic production framework which made it possible for us to move to a new location and fruitfully produce a crop our first year. Not every technique was transferable, but the basic skills and understandings were. We adapted what we already knew to meet the current situation.

Before we started, thinking of starting our own farm was an overwhelming prospect. There are many avenues to consider: record-keeping, tillage, post harvest handling, pest control, irrigation, marketing, greenhouse work, harvesting, and unanticipated circumstances. We tackled each situation as it arose, and tried not to get bogged down with the constant list of chores and work. The important fact to remember is that you only have one first year.

We hope prospective farmers have gained new insight into questions to ask their farmer-mentors. If you are really serious about becoming a farmer, try to get as much as exposure to each phase of the operation as possible. When you have your own operation, the work will not be all planting, weeding, and harvesting.

Likewise, we hope this article helps farmers teach their interns how to bridge the gap between the idea farming and the reality of farming. Farming is so labor-intense that it can be easy to focus on getting the work done. But if you are truly trying to grow farmers as well as crops, remember your own first year and what lesson you wish someone had shared with you.

The most important lesson we learned last year was how much we love farming. We would not trade a day in the sunshine transplanting, hearing words of encouragement from our customers, or spotting the first tomato of the season for any other profession.