

Growing an Organic Food System

One farm family's experience converting from a chemical-intensive to organic dairy operation

By Neill Lindley



photo by Allen Spalt

(Editor's note) This piece is a transcript of a talk given by farmer Neill Lindley at the 27th National Pesticide Forum, Bridge to an Organic Future, held in Carrboro, NC, April 2009. Mr. Lindley is the fourth generation in his family to farm on the home farm in Chatham County, North Carolina, now called Lindale Organic Dairy. His father is still very involved with farming – he likes to drive the tractor, which is fine with Neill, who likes to concentrate on developing their rich, nutrient-dense soils, maintaining their pastures and caring for their herd of 175 Holstein and Holstein-cross cows. In the 90s, Neill farmed with his father conventionally, but he was bothered by the health of his cows. Neill began converting the operation and was certified organic in 2007. The farm is now part of the Organic Valley cooperative. The session was introduced by University of Minnesota organic outreach coordinator and Beyond Pesticides' board member Jim Riddle. The talk in its entirety can be seen at <http://www.beyondpesticides.org/forum/video/2009foodpanel.htm>.

Introduction

First off, I want to say that I really appreciate the work that everyone at Beyond Pesticides does. It is my pleasure and honor to

moderate our opening panel this morning. Welcome everyone. I have been working for the University of Minnesota as the organic outreach coordinator for three years, so I get to do workshops and promote organic agriculture on behalf of the University and it is truly a privilege to be in that position.

The session this morning is titled "Growing a Fair Local Organic Food System." Before we start, I just want to share a story that was told to me by Fred Kershman, Ph.D., who many of you might know. He's a long time sustainable agriculture leader at the Leopold Center for Sustainable Agriculture at Iowa State University. Fred spoke at our Minnesota organic conference in January of this year, and he told me a story of a friend of his, who had dinner with Barack and Michelle Obama sometime after the election but before Secretary of Agriculture Tom Vilsack had been appointed. They wanted to talk food and agriculture for the entire three hours, and it was evident that the President understands the systemic changes that are needed in agriculture and food production and the linkage to human health and environmental impacts. But with so much on his plate, so to speak, he can't personally take it on. However, I think that we can look to the First Lady to take the lead. Look for incremental changes.

One thing that is most interesting is the first family's transition to eating organic food. Before Mr. Obama announced his candidacy, they realized that Mrs. Obama would not be able to cook for the family. So, they brought in a chef who looked at their pantry and just gutted it, getting rid of all the processed food and replacing it all with organic whole foods. They say that they saw the behavior, performance and attention span of their daughters significantly improve. The two of them were on the road, living in hotels, shaking hands with everybody for 15 months and did not get sick a day. This really changed their lives and their minds. It's so significant to me when you can effect change at a very personal level, especially for the children. That is the kind of change we are seeking.

Already we have an organic garden at the White House, At USDA, Secretary Vilsack has torn up the pavement and started a peoples organic garden in front of the Department's headquarters. These are symbolic actions, but they're big symbols. It is significant to have Kathleen Merrigan appointed as USDA's

number two person, the Deputy Secretary. She worked for Senator Patrick Leahy, who was the original author of the Organic Foods Production Act. I'm finding a very open door, at least at USDA for organic and sustainable agriculture, which hasn't always been the case. So it's very exciting times.

It's also exciting to be here in Carrboro and the Carolinas. The thing I see that I think is so innovative are the farm tours that the Carolina Farm Stewardship Association (CFSA) organizes. Several times a year in different locations around the state, you have 40 farms opening their doors in this region. And the consumers love it! They learn the connections and want to know where their food comes from. This is the kind of thing we need around the country. It has been a great model, and has been an inspiration for me, trying to get that going in Minnesota.

Our first speaker this morning, Neill Lindley, is the 4th generation in his family to farm on the home farm, about 26 miles from here, called Lindale Organic Dairy. In the 90's, Neill farmed with his father using convention chemical-intensive practices, but was bothered by the health of the cows, so he began converting the operation and became certified organic in 2007. He is now a part of the Organic Valley Cooperative.

Making the Conversion to Organic Practices

Good morning. It's an honor to be here! I did have to milk this morning, so if I'm a little foggy help me out. I did start my day at 4:00 am. I appreciate the opportunity to share some nature with you this morning. My bottom line here really is an understatement: Each day we see a new blessing in working with nature instead of against it. We count our blessings. We have about 400 acres on our farm, give or take a little bit, and this month we have totally transitioned every acre to certified organic. I'm happy about that.

I got into this in part because my cousin was telling me about all of the good things he saw while traveling and touring around with Organic Valley (OV). He told me stories about the really healthy cows he had seen, and it got me interested. I really can't say enough about OV. I want to take a few minutes to speak on what OV has done and is doing for me, and then devote the rest of the time talking about my farm.



Organic Valley and CROPP

I am part of the Cooperative Regions of Organic Producer Pools (CROPP) which makes up Organic Valley, headquartered in LaFarge, Wisconsin. There are five of us here in North Carolina. We all sort of transitioned around the same time. Things have gone well so far. We've relied on each other quite a bit, and while we had a couple of droughts that came through around the time we transitioned, we've been working together and things have been going extremely well.

We do tours through CFSA. And I'm in an investor program that works with Organic Valley where we have buyers come in and do a tour of the farm. We have our barn with the gambrel roof, the grain bin where the grains are stored, and the tractors in the shed, which I want you to keep in mind, because I want to come back to that later.

Birds as insect control

And we have numerous Purple Martin gourds. We call that our organic insecticide. These birds fly around and eat their body weight in insects in half a day. So we enjoy watching them late in the afternoon. They do a really good job and are fascinating birds.

Building a market for organic

Okay, so here's Organic Valley's mission: "The purpose of the Co-operative Regions of Organic Producer Pools (CROPP) is to create and operate a marketing cooperative which promotes regional farm diversity and economic stability by the means of organic agricultural methods and the sale of certified organic products." The purpose is solely for marketing organic products, and they provide economic stability for us. I just can't say enough about them. I don't think that it would be possible to be here had it not been for Organic Valley and their insight into the future.

Dairy is the main pool for CROPP, and the other pools include eggs, meat, juice, produce and soy. CROPP is broken into three different categories, the different brand names: Organic Valley, Organic Prairie, and organic logistics as well. The CROPP Co-op Structure is based on a few things:

- They exclusively market organic product, as you know.
- Marketing co-op is modeled with supply management and brand strategy.
- Farmers set the pay price based on the cost of production.
- Active, educated farmer-controlled Board of Directors, and monthly pool meetings.

The farmers are actually the owners, so we have a conference call each month. The pay price is set on the first of each year, and it's a fair and stable price for farmers. That's music to our ears. It's been a little challenging with the economy, of course. But for the year it's been good for us even though growth has been kind of slow. It's still sustainable and we feel good about that.

Carlo Petrini, founder of Slow Food, said, "If the farmer is not paid fairly, it is not a valid product."

When the original seven started Organic Valley in 1992, they set out on a mission to create a fair and sustainable price for the farmers in Wisconsin. These seven guys started out selling cheese basically out of the back of their trucks and it grew into over a thousand strong in dairy. I think I was something like the 894th dairy farmer with CROPP. The "Y" in the road is just a business model that pays farmers a fair price first, and then the business side of things follows suit. A lot of co-ops operate in a different manner, but this has really been very beneficial to me and my family and others involved in CROPP.

Equity Program

We buy equity into the co-op whenever we sign on. This is how it works:

- As a cooperative, the majority of the operating capital comes from the farmers/owners.
- To join, farmers must purchase stock equal to 5.5% of one year's gross income.
- This investment also establishes the production level (base), so the co-op can manage supply and protect pay prices.
- All farmer stock (Class B) earns 8% interest.

We all know about all of the challenges:

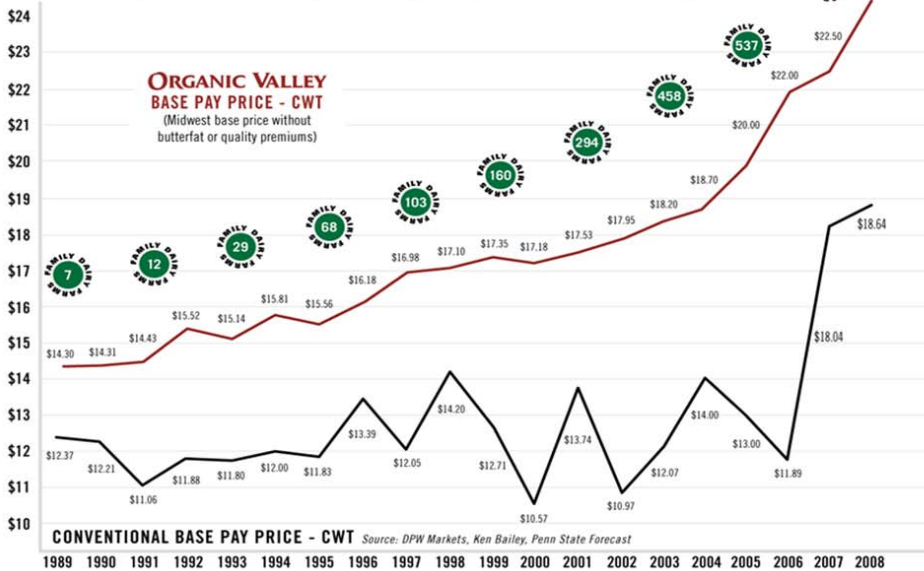
- Supply and Demand—intense growth period.
- National Co-op with regional program/brand.
- Competition with large public companies.
- Negative backlash on Industry Issues (media).

These bird houses made from gourds attract the purple martins, which serve as insect control.





Dairy Pay Price Comparison 20 years of Organic Partnership



Dairy Pay Price Comparison. This graph shows prices that we get. The top line is us, and bottom line is conventional. As you can see, there's a great variation in their prices. To us, the top line reflects the true cost of food. So this is the graph we like to look at. We like that line to stay as confident as it can. We also measure our success by the number of farms. Currently there are 1,332.

Facing the challenges

I would like to introduce you to the challenges that I faced in making the transition to organic. When I first got into organic, I was told that it couldn't happen. I spent many a sleepless night stressed. So, this is the way we did it. At one point, we were at a total of 300 cows. I had to sell the top half of the herd in order to afford to get into this, because biological preparations had to be made to the soil. I had a soil where the organic matter was at less than 1%, and I couldn't understand why, because I thought I had good soil.

So what we had to do was go back and sow green manures. We had to restock the soil. I had to feed the live stuff in the soil that had been so neglected through all the chemical fertilizers and pesticides over the years. I did not realize that I was killing, as well as the initial weed that I thought I needed to get rid of, snails, fungi, and all the live stuff in the soil that we are supposed to manage.

So, I began to stay up through the night and read books. I read a lot, including some of my heroes, Phillip Callahan, Ph.D., for instance, and *Biological Theory With Ionization* by Carey Reams, Ph.D. What that is, is balancing, or mineralizing the soil so it becomes electromagnetic. If there's a good balance, these plants are actually electric. If they're rooted and grounded in mineralized soil, they capture a lot of their nitrogen and nutrients from the at-

mosphere. I did not realize that the air we breathe is 78% nitrogen.

My goal became to mineralize the soil and to get nature's free gift, rather than me bringing in truckloads of minerals and truckloads of feeds on to the farm and so forth. It seemed like my input costs were continually growing in the conventional setting. It's kind of an addiction that I was into, that I just did not seem to be satisfied for the first 20 years of my career, actually.

And so, as I began to read these books and get this soil kind of a dark green color, and get some humus and organic matter back into the soil. I was telling some this morning that we are really seeing the benefits of it now. It's a holistic system, meaning that the whole is greater than the sum of the parts. Each day I see a new blessing.

Chemical treatments unnecessary

[See photo of calf on opposite page]

A beautiful healthy calf standing in my garden. He provides our fertilizer for the flower garden. We're going to till that wheat in while it's young and lush and feed the microbes in the soil. In turn, they're going to feed my tomato plants, my corn, or whatever my wife wants to plant out there. But anyway, that's a picture of health right there. I can honestly say that for this calf the inputs to the mother cow were just grass and herbs off of mineralized soil. She never had a wormer, she never had an insecticide. She was never doused with chemicals that were going to harm the environment. Anyway, that's a little buster right there. If you can catch him, you're pretty fast.

Now, I really want you to get an accurate picture of the farm. The milk truck comes in to pick up our milk. It's processed as close as possible. It's one of Organic Valley's policies to process as local as possible. There are the Purple Martins again. I've actually caught some of them on film. They're coming in right now—they send their scouts each year and migrate back to the same place --so that's pretty cool. Santos Cortez is my herdsman and my partner, and he put the whole process together. He is much happier now that we came through the certification and we can just milk and go home. We don't have to work till the wee hours of the night anymore. The cows are healthy. I can unequivocally say that a dairyman's biggest problem is a sick cow. You can't sleep well if that's going on. These cows are healthy, and that's just another

blessing that we see.

The big barn is where we used to have the cows. My goal at one point was to have 300 cows, and milk three times a day and get all this milk and just grow as fast as I could. But I'm happy to say that the cows are out of the barn and off of the concrete. They're out in the sun getting the vitamin D that they need to be enriched with each and every day. And they're much happier. So, I like to look at that empty barn, cause there's much less trouble now with these cows.

We haul our waste to an animal waste pond, a holding that catches any runoff from the farm, and store waste before we can get it out to the field. This is a good thing, but I'll show you a much more efficient system.

Natural fertilizer

The cow patty is a much more efficient system of handling waste. This cow patty is out there in the field. Here is what happens on my farm. There are little holes in the cow patty that are dung beetle holes. These guys fly in here, and if you read through Dr. Calhahan's books, you'll figure out how they find this type of manure, the ones that they can digest and put into the soil so it can be used by the plants later on.

Nearly 80% of the nitrogen that we apply ourselves escapes into the air. These guys catch that and they put it into the soil. These roots on these plants exude acid and it works with the phosphorous and the nitrogen that these guys store in the soil foods—much more efficient than that big green tractor or that tanker that I have, as you see.

I go out there every day and kick a patty over and I can see they're working for me out there. They're making green grass. This is important to me because the cow pat was two inches larger in diameter four days previous. The pat will completely disappear within seven days. Because we rotate cows, we'll have 24 paddocks, and we'll get them on and off this part of the field and the pat will rest for 30-40 days again before that cow will see it and, well, that gives the dung beetle a chance to do its work, as well as the grass to come back.

A holistic approach for the nation

It's holistic. It works together and it's totally feeding those cows right now without me doing anything but turning them out. This is the kind of thing I'd like to see happening in our country. This is a holistic system. The whole needs to be greater than the sum of all the parts. I'm adamant about this, and it can be.

Our wheat field was pretty much biologically dead three years ago. It was row cropped for 47 years. We turned in one green manure crop, and put some calcium and humates out—pretty cheap



really. I was out in the field monitoring the Brix reading, which is essentially the sugar content to read the health of the plant. The sugar reading is out the roof. It's not that dark green color that you see on some fields where heavy amounts of nitrogen are put out there and the plant explodes. That's not the kind of feeding these plants need. We need to feed both the soil and the plant, not just the plant itself. Now, if you read some of Art Anderson—he's one of the guys that I do some workshops with—and look at some of his findings, not only will you find that we produce 30 tons of dry weight biomass per acre, but we can also go way above and beyond what we've ever done before with a biodynamic system. I'm really proud of that wheat field. So, we can feed America like this.

I really just want to pass along the excitement and the joy that we have found in organic farming.

This is the ugliest lot, the ugliest paddock I have. The staff veterinarian for Organic Valley came down to inspect and said, "Now, I want to

see the worst paddock you have." I took him here, and he walked around, and identified dandelion and certain herbs and said, "These are natural dewormers for your cattle." All I could think was, wow. So I took him to the worst looking paddock in our eyes, and it turns out that this is now where we turn them in the spring to give their immune system a boost. Look at her, she's happy, the only thing that's bothering her is me.

We have fresh well water available on each paddock. Milking time on Tuesday allows us to milk about 16 cows at a time. So we milk a hundred cows in about an hour. We like to get them in and out as quickly as possible. They don't like concrete and we don't either.

Now, before I finish, I wish to get the message across today that this is such an honor to be here, because I do believe that we can be holistic here in America. I'd like for us to be the first country to prove that. I really just want to pass along the excitement and the joy that we have found in organic farming. Thank you very much.