



# FARMER TO FARMER

podcast



## EPISODE 159

**Anne and Eric Nordell of Beech Grove Farm on a Multi-Pronged Approach to Weed Control, Farming with Horses, and Designing a Farm**

**February 22, 2018**



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Chris Blanchard: It's the Farmer to Farmer Podcast, episode 159, and this is your host, Chris Blanchard.

Chris Blanchard: At Beech Grove Farm, Anne and Eric Nordell manage six and a half acres for vegetable crop production, with half of that in cover crop and half of it in vegetables, and they do it with horsepower, next to no hand weeding, and absolutely no irrigation. Anne and Eric share their experience farming with horses, something they've done since Beech Grove Farm's start 35 years ago. And how they set the farm up from the start to be manageable for the two of them. We talked about their strategy for reducing weed pressure, including their reduced tillage system, and the year-on-year-off rotation of vegetables and cover crops that allows them to build soil while minimizing weed issues. We also dig deep into their low-input system for making compost, their low-input wood-fired greenhouse, and the changes they've seen in their rural community.

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- Chris Blanchard: Anne and Eric Nordell, welcome to the Farmer to Farmer Podcast.
- Anne Nordell: Thanks for having us.
- Eric Nordell: It's wonderful to be on the Farmer to Farmer Podcast.
- Chris Blanchard: I will say, I didn't tell you guys this before, but in episode 100 of the show, my friend Liz Graznak actually interviewed me, and she asked who were some of the guests that I was particularly excited about having: What was my bucket list for guests to have on the show? And I actually had listed you guys as being on that bucket list, because I think you guys ... I mean, the work that you guys have done with the whole shallow tillage, and the weed control, and the crop rotations, I feel like in many ways it's foundational, the stuff that the market farming community is doing. Then there is this added aspect that you guys don't have a computer, so that makes it kind of cool that we're actually doing a podcast recording.
- Chris Blanchard: I'd like to start off by having you guys tell us a little bit about Beech Grove Farm: Where are you guys located? How many vegetables are you guys growing? Where are you guys selling that?
- Anne Nordell: We're located in the mountains of North Central Pennsylvania. We've been here for about 35, 36 years. We manage about six and a half acres for vegetables. Half of that is in cover crops every year, and so it's about three and a half acres, three and a quarter acres for vegetables, and we market everything within a 25-mile radius. We do a farmer's market in Williamsport, which is the closest city, and we supply a few restaurants.
- Eric Nordell: I might just add that often when people think of Pennsylvania, what comes to mind is Lancaster County, Southeastern Pennsylvania, which is one of the most productive areas in the country. We're in the northern part of Pennsylvania, which is a much shorter growing season, not quite as nice soils. As one researcher from Rodale referred to it, as the tundra of Pennsylvania. So it's a little bit similar growing conditions to what you might think of as Western Massachusetts, Southern New England, probably even parts of the Upper Midwest.
- Chris Blanchard: And just from looking at the map, it's somewhat folded country. It's not exactly flat around Trout Run, Pennsylvania.
- Eric Nordell: Not at all.



- Anne Nordell: No, not at all, in fact Eric spent a fair amount of time out in Cashton, Wisconsin area, and he, when we came to this area, he thought it really reminded him of that area, so you can get a visual of that.
- Chris Blanchard: Cashton being kind of near La Crosse, and that whole-
- Anne Nordell: Right, rolling hills and...
- Chris Blanchard: The Driftless region of Wisconsin. You guys, I mean, you said how many vegetables you're growing and the cover crops, but one of the really interesting things, I think, about Beech Grove Farm, is you guys are farming with horses.
- Eric Nordell: We've done that from the start. In some ways, I wouldn't say it's the most unusual aspect of our farm. It might almost be considered the least unusual aspect now, but I was ... It's kind of like the way a lot of us came to organic farming. The concept completely made sense to us, but it wasn't until we got our hands in the soil that we realized how much we loved it, and it was the same for me with horses.
- Eric Nordell: I think I had read about it in Wendell Berry's *Unsettling of America*, the whole sustainability aspects of it, growing your fuel on the farm, the fact they can reproduce themselves, provide fertility for the crops and so on, but it wasn't until had the opportunity to work on horse farms in Lancaster County that I realized that this is what I love to do, and couldn't really imagine farming, doing it any other way. Some of that is ... Farming is so much about working with things that are alive, and so the horses are one more aspect of life. They're right out there in front of you, living, animate power source. They're always giving you feedback. It's almost like ... well, they're called a team, but it's really like teamwork, in a sense, you as a teamster, or kind of the coach.
- Eric Nordell: It's so quiet too, and this is something I really hadn't thought about. We were part of a research project. It was called the NEON Project, Northeast Organic Network. It was a multi-faceted project, and one part of it was key studies of 12 farms around the Northeast. We were one of them. Researchers came to the farm every two weeks during the growing season for two years, monitoring five different crops, and there were some interesting things that came out of that.
- Eric Nordell: On our farm, they were surprised that horse-drawn cultivation was actually faster than tractor cultivation. That may or may not be a good thing, depending on what you're trying to do. They determined a nutrient budget for our crops, and it turned out on our farm it was almost perfectly balanced. We were adding and growing almost the same amount of nitrogen and phosphorus in our fields as we were exporting from the farm in the crops. They did a nitrogen mineralization study, which showed that the cover crops and the small-matter compost, we were releasing almost exactly the right amount of nitrogen for a crop of broccoli that we planted in that field, and that crop turned on to yield above the industrial average.
- Eric Nordell: But those are all kind of scientific-y things, and the comment we heard over and over again from the researchers on the farm is, "It's so quiet on your farm."



Everywhere else we go, there's always a tractor running." I don't know what value you can put on quiet, but it is, you might say, a quality of life improvement.

- Chris Blanchard: Your farm, because you're farming with horses, is laid out somewhat differently, I think, than the typical six-acre intensive market farm.
- Eric Nordell: Oh, definitely. A big part of that was actually to utilize the horses as much as possible. When we started farming in the early '80s, there really weren't many models for horse-powered market gardens, and the few that were doing it were basically doing the fieldwork, seed prep, bed preparation, and everything after that was handwork. In fact, a lot of small-scale tractor farms were doing the same thing, but that didn't really provide much work for the horses, and one of the big things that I think is different between the two power sources is that horses require a fair amount of training, and so really the more you use them, the better they get. Well, I think most tractors pretty much know everything they will know when you purchase them.
- Eric Nordell: Also, you are in a sense fueling the horses year-round. They require almost the same amount of feed and care whether you're working them or not, so the more you use them, the better return you get on their fuel. So one of the things we did right from the start is plant our crops in widely-spaced single rows, and this is so we could take advantage of the traditional straddle-row crop riding cultivator, and this allows you to cultivate one row at a time. It's what was used traditionally, say, with corn, tobacco, cabbage, other row crops. One of the nice features with this cultivator is it has pedal steering so you can actually guide it along the row as you go for precision cultivation, but it does require planting the crops farther apart than what you think of as your typical multiple-row plantings in a bed system. We did try experimenting with multiple-row beds, and as I said earlier, the horses are maybe the least unusual practice on our farm.
- Eric Nordell: We also don't use irrigation. We don't even water in the plants, and we are putting out lettuce every week of the growing season, direct seeding, mesclun and spinach every two weeks. We really have to pay attention to preserving soil moisture, which is another aspect, but having the crops in widely-spaced rows is providing a very large reservoir of moisture for each plant, and for that reason we've stuck with row cropping. We could modify a horse-drawn cultivator to straddle a wider bed and cultivate several rows, but because of trying to do dryland market garden, we haven't gone that route.
- Eric Nordell: The other aspect of utilizing the horses as much as possible is, as I mentioned earlier, we've divided the market garden into cover crops and vegetable crops. It's actually roughly half-acre strips alternating around the market garden, so every other one is in cash crops, and the alternating strips are in cover crops. Of course the cover crops are great for building the soil, reducing the weed seed bank. And it's a great way to use the horses throughout the summer, planting the cover crops, mowing the cover crops, incorporating them, and seeding them, so we're probably tripling the use of the horses, as opposed to just seed-bed preparation and that's it.
- Anne Nordell: You probably can tell that Eric loves working the horses. The more he gets to do it, the better. It's not like he's trying to get through with the job. This is what gets



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him up in the morning. The more time he has with the animals, the better, so that's how we've designed this, to accommodate that interest.

**Eric Nordell:** We actually started with both a team of horses and a tractor, and the primary use of the tractor was that Anne had all this tractor-driving experience, and it seemed like we should make use of that. The tractor was great for breaking the old sod, the first plowing on the farm. We were also using it for PTO work like combining the oats for the horses. We used a chopper for chopping medicinal herbs before drying them.

**Eric Nordell:** But I think it was either the third or fourth year on the farm, we looked at the tachometer on the tractor and noticed we'd only put seven hours on, and we really couldn't justify it. I mean, the maintenance, just changing the oil, whatever, cost more than the use we were getting from the tractor, and we decided, well, we could just kind of reorganize things on the farm a little bit: drop some crops, buying the oats for the horses, and so we eventually sold the tractor and did that.

**Chris Blanchard:** What do you use as a power source on the farm when you have jobs that you would have done before with the PTO? And I'm thinking specifically, not so much things that can be done with a soil-moving implement, because you can trade a plow for a Rototiller, but things like a chopper, something like you were using to chop up those medicinal herbs before you were drying them.

**Anne Nordell:** Well, we no longer grow medicinal herbs and dry them and wholesale them. We've scaled back on that; we only do fresh herbs anymore. So we don't need that equipment anymore. Every once in a while you think, oh, it'd be nice to have a chopper to chop up the broccoli stalks or something, but we use manual labor, I guess, for those kind of jobs.

**Eric Nordell:** A nice tool found on a lot of vegetable operations is a flail mower, or rotary mower. As Anne mentioned, it's nice for chopping up the crop residue, and also comes in very handy with cover crops, chopping them down to a smaller size, easier to manage. We've just found some other ways to handle that. I don't know if you're familiar with a sickle-bar mower that is sort of the traditional horse-drawn implement. Very interesting, because you're just using the traction power from the wheels to drive the pitman that runs the sickle bar. What we do with the tall cover crops, say like rye or oats, is put the cutter bar in transport position. If you can imagine, it's kind of angling up at maybe from 18 inches to 24 inches high. Make a pass with that. That cuts off the top of the cover crop. Then we come right back with the cutter bar on the ground, cut off the bottom half. Now, it's obviously not as small pieces as a brush hog would put it in, but we've found it's adequate for getting through with a plow, or undercutter, or whatever implement we're following it with.

**Chris Blanchard:** So at least you're not ending up with a five or a six-foot-tall rye stalk out there in the field.

**Anne Nordell:** Exactly.

**Eric Nordell:** Exactly. What I've heard is the ... maybe the biggest reason people would not switch to horses, and I don't think it's a serious obstacle, but it's a very legitimate concern, is that horses don't come with a front-end loader, and that would have



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many uses on a farm, whether it's moving pallets of vegetables into a warehouse, or just moving soil, collecting rocks, whatever. We just simply do things by hand, case by case. At our scale it doesn't seem to be a major problem, but it could be a deterrent. Actually, many horse-powered farms have a tractor or skid loader just for that purpose, so a dual-powered farm has its place as well.

Chris Blanchard: But that choice to stay at a small scale where you really can do that handwork, that's something that you've been very intentional about.

Anne Nordell: We have been. Both of our previous experiences, before we got together over 35 years ago, mine was on a very large-scale farm that ... it just kept expanding and expanding and expanding, and you could see the stress level expanding as well, and Eric also saw experiences on different farms where ... just that ... getting to the point where you're at a scale where it's not manageable anymore, really causes some stress. So we were very, very kind of cognizant of designing our farm that we could work together, on a scale that could be manageable and that we would enjoy our work, and we've kept that.

Chris Blanchard: Do you guys have hired help on the farm, or is it just the two of you?

Anne Nordell: Well for, I'd say, the first 25 years it was just the two of us, and then we made a decision to have some local people, one person actually, starting out helping in the packing shed, washing, bagging, those kinds of things. So Eric could focus on fieldwork and another person could be here kind of doing the tedious work, I guess you'd say. And we've been just really, really lucky. There's a young woman who grew up on an organic dairy farm 10 miles from here. She started working here when she was 17, and she just loves working here. This will be her 11th year coming up. She just knows every aspect of the farm. She's just great. She's just like a partner in the farm. So she's with us. Four years ago, Eric got very, very ill, and for three seasons we had a young man helping us on the farm, doing the horse work for the summer for three months. But in general, I guess you'd say it's a three-person operation now.

Eric Nordell: We started out primarily wholesaling vegetables because there wasn't demand in our area. It was kind of pre-organic, at least in these more remote parts of the state. So we were growing the medicinal herbs that were dried and could be shipped, and a lot of root vegetables that could also be stored and moved as there was demand. So that was much easier for the two of us to handle. As we transitioned almost completely into direct marketing, and doing much more time-consuming crops, as well as the age factor ticking in, it was very helpful to have another pair of hands.

Chris Blanchard: You guys have been very intentional about the technologies that you've chosen to employ on the farm. Are you off the grid?

Anne Nordell: No. I mean, we have electricity. We have a telephone. We've just chosen not to have a computer. It's not like we're against it or anything like that. I think in general, our personalities, we're pretty minimalist, and we kind of always look at things and say, "Do we really need this? Is this necessary?" Some things aren't, and we haven't missed it. We haven't had a television since we were married. But when we go visit relatives, it's really fun to watch a little television. Then we can get away from it, and don't have a need for it.



- Chris Blanchard: When you talk about having a packing shed and storing crops, you guys, do you have a walk-in cooler and a regular packing facility with a barrel washer and other tools like that?
- Anne Nordell: Oh yeah. We don't have a barrel washer, but we have a walk-in cooler. We have a spinner for the baby greens, but we do a lot of washing by hand with a hose, and we have a whole set of tubs and tables, and things like that, yes.
- Eric Nordell: Just going back to the technology question, I mentioned I learned to work horses in Lancaster County, and both farms I worked on were Old Order farms that ... they are not at all anti-technology, but are always looking at how technology affects their community, and so just step back, let's watch, and wait, and see what happens. I think that kind of rubbed off on me.
- Eric Nordell: We didn't see the need right away to get on the Web, or computer, or smartphone, or anything like that. Let's just sort of stand back and watch what happens. It's not going to change anything. I mean, the genie's out of the bottle, right? We're not going to stop social media all of a sudden, but I'm not sure everything that's gone along with that has been positive, and in some ways I think we have a lot more time on our hands. I mean, we're not plugged in all the time. We sit down and read a book, magazine, when we have extra time. We've talked to a couple of farmers who say, "A computer is a real help, but we spend way more time on the computer than we used to before, when we did things by hand." So it's a trade-off.
- Chris Blanchard: Of course, we hear that again and again, and it is an incredibly powerful tool, and I know a lot of the listeners, well, probably the vast majority of the listeners to this show are plugged into technology simply because of the medium here, it being a podcast, and something that people do listen to on their phones. But it is also certainly something that comes at a cost. I mean, even you talk about the quiet that you guys get on the farm, not having that interrupted by an iPhone ringing, or not plugging into an audiobook while you're working with the horses. Those are quality-of-life choices.
- Anne Nordell: Right, and some things happen not necessarily by choice. Like, we live in a very hilly area, so we don't even have cell phone service here, so we don't even have the option of having a cell phone on our hip and getting phone calls. So that's okay and we don't have a problem with that.
- Chris Blanchard: We didn't have cell phone reception on my farm either, and that was always a source of tension with my teenage children, but it was something that I really did love: that you couldn't get a hold of me while I was out on the tractor.
- Anne Nordell: Exactly.
- Chris Blanchard: Half of the market garden's in vegetables and the other half is in cover crops. Can you tell me a little bit more about how that works and why you've chosen to do that?
- Eric Nordell: Well, I think there's several factors to why we set aside half of the market garden each year for cover cropping. Some of our decisions have been somewhat



arbitrary. For example, we decided our only compost input for the market garden would be from the manure generated by our workhorses, so that is actually a rather limited supply of compost. Typically, over the last 30-plus years, we've had three to four horses, and we might be producing 35 to 40 yards of compost maximum, and so we realized that we really needed to have other sources of organic matter to maintain the soil tills for vegetable production. And of course the vegetables, most vegetables themselves don't do much for returning organic matter to the soil, or even improving aggregation with their relatively wimpy root systems.

Eric Nordell: So by taking land out of production, we could grow the cover crops, have plenty of time and space to do it, and this, how do you say ... Compared to growing vegetables year after year, you're always constrained by small windows for cover cropping. Maybe you finish up harvest late in the fall. You can get some rye planted. You're ready to turn around and start cropping again in the spring. You turn it under the rye again. You really haven't gotten much out of the cover crop. In fact, in some cases, it can be a nuisance: it's just getting in the way of getting going with the cropping year.

Eric Nordell: I think we realized, particularly in a relatively short growing season like we have here, that we would need to allow the cover crops to grow almost to maturity. In other words, let's really get that rye up towards heading out and producing a lot of organic matter, and then let's have the time where we could incorporate it and allow it to decompose before planting, so we don't have concerns with nitrogen tie-up, or just simply too much coarse organic matter for planting.

Eric Nordell: So typically, we would get a over-wintering or spring cover crop, starting out what we call the fallow year, the year out of production. We could allow this grow until it's almost to maturity. Obviously, we don't want it to make viable seed. Incorporate it. Then we have time for what we call a bare fallow period, and then plant another significant cover crop for fall growth.

Eric Nordell: So we're really growing, for each cash crop, two full, mature cover crops. This fallow period between the two cover crops is a time when we can intentionally reduce the weed seed bank in the soil. And we do this ... It's very similar to what many growers do before planting vegetables, a series of stale seedbeds kind of trick the weeds into growing, then shallowly incorporate them so that they're dead, and then come back, allow another generation of weeds to grow. We've been doing this for many years.

Eric Nordell: I referred to this NEON Project in the early 2000s. They actually did weed seed counts in our soil, and really didn't find much of anything. I mean, they're kind of oddball weeds that you just don't normally find. Most of the weeds were actually cover crop seed. We weren't starting out with high weed pressure. I mean, these were old hay fields. I think we've seen all of the major weeds: the lamb's quarter, pigweed, galinsoga, foxtail, and so on, but it wasn't as if it was polluted with these weeds. But we have very intentionally tried to reduce the weed seed bank, and it seems to have worked for us.

Eric Nordell: One of the things you have to keep in mind is that if we reduced the number of weed seeds in the surface of the soil during this bare fallow period, we plant the fall cover crop, and then the next year, if we go in and plow deeply, well, we're



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going to end up bringing new weed seeds to the surface. That's kind of counterproductive, and that's what really set us down the path of trying to minimize tillage. How could we reduce the depth of tillage so we weren't bringing up new weed seeds to the surface?

Eric Nordell: This also ties in to preserving soil moisture. We're growing kind of on a hilltop. If you till deeply, you get some heavy winds, it's going to almost dry to tillage depth. Not very good when you're trying to seed carrots, or spinach, or something like that. So a lot of these things have kind of worked together to make the system work.

Chris Blanchard: And when you talk about minimizing tillage, you're not necessarily talking about minimizing the number of passes that you make with the tillage, but you're really talking about trying to minimize the depth of the soil that you're going after, and just how much soil you're disturbing. Is that right? Is that my understanding-

Eric Nordell: You've got it exactly right. I mean, when you think about it, there's a number of ways you can reduce tillage. One of them is, you pointed out, the frequency of tillage. There's the depth of tillage. There's the intensity of tillage. And I think it would be fair to say that we are tilling frequently, but not deeply, and it's not intensive tillage. By this I mean that, you think of a Rotavator is eating the soil at a high RPM. We're just going slowly through the soil, say with a set of sweeps, or an undercutter, spring-tooth harrow, something like that.

Eric Nordell: There's a lot of interest now in no-till organic vegetable production, and much of it started with, I think, the work at Rodale and other places, where they're rolling down a cover crop, and the idea is that the cover crop suppresses the weeds, and then you plant into it. We've almost come from the opposite end of the spectrum, where we first reduce weed pressure, and now this gives us the option to do minimum tillage without worrying about the weeds.

Eric Nordell: So we no-till garlic into a winter-kill cover crop. We add a little mulch in the pathways to preserve moisture, but as you know, winter-kill cover crop breaks down pretty quickly in the spring, and we don't need to weed the garlic. We do minimum-till vegetables, simply, we plant the cover crop on a ridge. Again, it's a winter-kill cover crop. In the spring we go over the ridge tops with a rotary hoe that's more commonly used for weed control, say in corn or soybeans, but it's just sort of popping the top inch of the soil, just enough so that we can transplant the bare-rooted onion. I don't know how workable a process that is for other growers, but it has allowed us a lot of flexibility in terms of reducing tillage.

Anne Nordell: The management that Eric's just described has reduced the weed pressure so low that I don't do any hand weeding at all in the three and a half acres of vegetables. That's what allows us to be able to have only three people here. If we were fighting weeds all season long, it would get very stressful. That has just really made a big, big difference.

Anne Nordell: In comparison, we do a lot more intensive planting at what we call our house gardens, where we have six hoop houses, and regardless of how we manage things, there's always a little bit of weed pressure in those things. So focusing, over the years, on the cover crop management and shallow tillage has just made a phenomenal difference in our weed pressure.



- Eric Nordell: I think one other piece of the puzzle is, I referred to earlier that we're only using the compost made from the manure produced by our horses. We can control what we're feeding the horses, the bedding we're using, and the composting process, so that we're not introducing new weed seeds to the market garden via the compost. That is such an easy way to increase weed seeds, is just bringing in that one load of free manure, and for years you have purslane or something like that. So that it really is a multi-prong process to reduce weed pressure.
- Chris Blanchard: Are you harvesting your own bedding on the farm for the horses?
- Eric Nordell: We originally did. I referred to, we had the tractor, and we used it for combining oats for the horses, so we used that straw. This is something, not only because of not being really cost-effective to maintain the tractor, but also changed, because of getting busier with the market garden crops. When we started out with the storage crops, we had a window during the middle of the summer for making hay, harvesting small grains, putting up straw. However, our income from the storage crops, sold wholesale, was not nearly as good as direct marketing locally. So the trade-off was, as we went into these more labor-intensive crops, is we gave up harvesting the hay, the grain, and the straw for the horses. This is a real trade-off. The economics for our farm has worked much better. We are able to buy hay from our immediate farmers, dairy farmers that have extra grass hay. For many years we purchased the straw from them as well. We can drive by their fields and observe how weedy the oats look, and decide whether we really want to buy straw from that particular farm that year.
- Eric Nordell: Another development, I guess this is probably in the last eight years, you've probably heard about the natural gas development. We're kind of at the ground zero for fracking for natural gas, something we haven't really enjoyed being around. They've had to build miles and miles of pipelines to move the natural gas out to the big cities. They mulch all of that pipeline ground with straw, and of course all the farmers wanted to sell for this because they're getting twice the price that they used to get. We literally went from \$3 a bale up to \$6 or \$7 a bale for, small bales, for oat straw, and so we ended up switching to wood shavings, which of course are completely weed free, and have just stuck with that ever since.
- Chris Blanchard: You're taking that bedding and turning that into compost. Is that correct?
- Eric Nordell: Right. For 25 years we used pigs to do the composting for us. I don't know if you can visualize this. We have our horses' stalls along one side of the old dairy barn, and then the other side we constructed three pig pens, roughly nine by 15 feet, and three feet deep, so we could pitch the bedded horse manure directly into the pig pens. One of the benefits of horse manure is that it generates heat very easily, but that's also its big drawback is it can overheat, basically burn out. You end up with a lot of dry ash. A lot of the nitrogen is going off. You can smell that in the form of ammonia.
- Eric Nordell: We found that by having a couple of good-size pigs on the manure pack, it ... in a sense, it reduced the air flow into the manure and slowed down the heat, so we got more moderate temperatures rather than super-high temperatures. Then, once the manure pack got two to three feet deep, we encouraged the pigs to turn



it. We simply poked holes in the manure pack, dribbled corn down the hole, the pigs root their way to the bottom of the hole looking for the corn, turning the manure over in the process. That was, without doubt, the easiest, fastest way to make horse manure compost, we've come across.

Eric Nordell: Several things happened. I guess this was, again, about six to eight years ago. We were growing the pigs for a soup kitchen in nearby Williamsport, and this older gentleman, who has always butchered the pigs, was finally getting old enough. He said, "I can't do this anymore." We didn't quickly find someone else who was willing to butcher the pigs on a volunteer basis. We were feeding the pigs organic corn, because we didn't want to import GMOs onto the farm. Right at that time, the price of organic corn doubled. I'm not saying the farmers didn't deserve it, but it got a little pricey for growing pork that we were going to donate.

Eric Nordell: Then, we also tried an experiment. I guess you'd have to think we were crazy to even consider it, but of collecting all of the manure the horses dropped on pasture, bringing it in to the pig pens for composting. I won't go into the details of that unless you're really interested. But it did mean that we needed more bedding to offset the manure, and that was going to be an added expense, to do it with pigs. So we've, in a sense, transitioned into more of a low-till composting system.

Eric Nordell: We've noticed that a lot of composting systems, they actually segregate the solid manure from the liquids. There are a number of reasons for doing that, but we realized once you did that, it really dropped the temperature, the ammonia production, kept everything more moderate.

Eric Nordell: So we kind of have two streams, where the urine-soaked bedding goes out to a hoop house, kind of gets pre-composted, loops back into the horse stalls as bedding, gets more urine, goes back out, then every day a small percentage of that pre-composted litter with the manure solids, go into the composting pens that are adjacent. We just have a flock of laying hens on top of it to kind of mix it and scratch it. The temperatures rarely get over 130 degrees. Makes a very nice horse manure compost. This obviously isn't meeting the standards, either for the NOP or for food safety, so we have to treat the compost as if it's raw manure, applying it 120 days before the harvest of most of our crops. A small percentage of this, we put into a tumbler we built, that qualifies as in-vessel composting, so you only need to reach a temperature over 131 for three days in a row. We actually get temperatures well over that for about a three-week period. We actually roll this tumbler, kind of like a big drum, across our barn floor. We use this compost for our potting mix, and in the high tunnels, where we have a quick turnover of the vegetables.

Chris Blanchard: And then the compost that you're applying out in the fields, are you applying that on the vegetable portion, or is that going onto the cover crops?

Eric Nordell: Well as I said, it always goes on three to four months ahead of the harvest of the vegetables. I would say, in general, for any early-planted vegetables, the compost is going on the year before. We would typically apply it during that bare fallow period, and before planting the fall cover crop. We'd be using a winter-kill cover crop in that case. So it's easy to do minimum-depth tillage in the spring. Before, say, fall vegetables, sometimes we're applying the compost into the spring onto an overwintering cover crop, say, like rye and hairy vetch, or a mix of clovers.



- Chris Blanchard: With the rotation that you're following, this one year of cover crops and bare fallow, and then one year of vegetables, is that something that you started with, or was that something that you developed as the farm developed and matured?
- Anne Nordell: We basically designed it in that way right from the start. I think we were influenced by both of our previous experiences, but also by our neighbors, who had very good rotations of corn, oats, hay. So we could always ... we're always looking at how other farmers do their jobs, and we were trying to kind of implement those concepts within the vegetables. I had farmed out in the state of Washington in Trout Lake, and it was ... that's the way their farmers also designed, so we were just very influenced by our previous experiences, as we probably all are.
- Eric Nordell: In Trout Lake, Washington, it was a medicinal herb farm. It was really essential to have low weed pressure before planting these low-growing crops that had to be contaminant-free before they were dried and shipped for medicinal uses. They used this cover-crop/fallow sequence in preparation for these herbs, most of which were perennials, would stay in the ground then for several years.
- Eric Nordell: So we did that right from the start, because we knew that the hay fields that were here on the farm were completely infested with quackgrass, and it would just be hopeless to plant vegetables directly into that. So we used, actually, very extended bare fallow to clean up the quackgrass, and then planted the vegetables the next year. Some of that area we planted to vegetables again the following year, and what we noticed is that beautiful, loamy, crumbly soil that we had coming out of sod, by the end of two years of cultivated vegetables, was filthy, and crusty, and really not much fun to work with, and I think that's when the light bulb went on that unless we're going to import a lot of compost to radically improve the stable organic matter in the soil, we would need to keep reconditioning it, with the root system of cover crops. We basically did that ever since, always taking land out of production to grow cover crops before planting the vegetables.
- Chris Blanchard: How long did it take you, using the cover crop and bare fallow rotation sequence, to feel like you had the weed seed bank under control on your farm.
- Eric Nordell: It's a little hard to say, but about the time we started farming, Eliot Coleman's wonderful book *The New Organic Grower* came out, and we were really intrigued with his use of overseeding the vegetables with clover, and we tried that. We got a nice clover stand, but we also had a lot of weeds growing in the clover, and it just wasn't practical to spend our time weeding the clover, let alone weeding the cash crop, and so that was a pretty good indication that initially we weren't there yet.
- Eric Nordell: But I would say about four years. In other words we think of it as a four-year rotation: typically late-planted vegetables, a year of fallow-year cover crops, early-planted vegetables, a fallow year of cover crops. By the end of that four-year sequence, a dramatic reduction in weed pressure. We started interseeding the vegetables after that point. Typically, we used just a single row of hairy vetch planted in the middle of the pathways. This is also because we're not irrigating. We found the broadcast seeding of clover could become quite moisture



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competitive with the cash crop. Also, somewhat hard to manage if it grew tall and started reducing air circulation, where the single row of vetch just kind of creates a mat on the floor of the soil. So I would say four, depending on the field, four to six years we could start implementing that practice. We didn't begin no-tilling or sort of minimum-tilling until, I'd say, 12 years. In other words, three times through the four-year rotation.

Chris Blanchard: And when you say, didn't start no-tilling or minimum-tilling, what does that no-till or minimum-till look like compared to the practices that you had during the first 12 years?

Eric Nordell: Well, I would say the initial 12 years, if we had a winter-kill cover crop, we were typically going over that in the spring with a disc. It was a small horse-drawn disc with some weight on it. We were probably only tilling two to three inches deep. It was enough to incorporate some of the residue, loosen it enough for planting. Typically, our cultivator is set up with large tractor sweeps, so we can handle a lot of residue, as far as that goes, but we couldn't just go in and no-till efficiently, transplanting, and certainly not direct seeding with, say, a Planet Jr. or EarthWay. For an over-wintering cover crop, we were typically plowing as shallow as we could. We found with the horses and walking plow, we could often get down to just two inches deep, say with a cover crop of over-wintering rye. Clover is a little trickier, often more like three to four inches deep. If we were letting the rye and vetch, say, go to flowering, then again we would often knock that down with a disc, or I've referred to it different times, an undercutter. This is simply one shank mounted in the middle of the riding cultivator, which has a 12-inch sweep on it that kind of undercuts the cover crop, and on top of the sweep, we call it a potato furrower. I don't know if you can imagine, it'd be like a big shovel you would use for opening a furrow for planting potatoes. It acts kind of like ridging wings, so as the sweep undercuts the cover crop, it throws a little bit of soil on top of it. Then we could allow that to decompose a little bit, level the field with a spring-tooth harrow. We have our harrow set up with widely-spaced teeth so it can handle the residue. Then typically level the field with either a cultipacker or rotary hoe.

Eric Nordell: So depending on which sequence I described to you, it's either a clean seedbed, like after shallow plowing, or what you might refer to as mulch tilling, with the shallow tillage of the cover crops on the surface.

Eric Nordell: By contrast, no-tilling, we're simply cutting a slit through the cover-crop residue. Again, we're using the riding cultivator with a coulter mounted in the front, and a narrow tooth in the back, and then we can come back and in the case of garlic we're hand-setting the cloves or transplants. We're sticking that into that planting furrow by hand. We've never scaled up to using a transplanter. There are all sorts of transplanters now made for using with horses, but again, we're rarely planting enough of any one thing to justify it. Typically, a transplanter, at least planting at a horse's pace, which is around three miles an hour, you need three people: one to drive the team and two on the transplanter. Little hard to do with just two of us. And then, we also found it allows us to plant into much higher residue than would be possible with most mechanical transplanters.

Chris Blanchard: With that, we're going to stop here. We're going to take a quick break and get a word from a couple of sponsors, and then we'll be right back with Anne and Eric Nordell from Beech Grove Farm in Trout Run, Pennsylvania.



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- Chris Blanchard: All right, and we're back with Anne and Eric Nordell from Beech Grove Farm in Trout Run, Pennsylvania. So, I mean, it's easy talking to you guys to get focused on the horses, and the cover crops, and the weed control aspect out in the field. Now, clearly the weed control aspect out in the field, Anne, you mentioned that you haven't done any of the hand weeding. I thought that was an interesting comment earlier, because it really did sound like you've got a division of labor on the farm there.
- Anne Nordell: Well yes, we do have a division of labor, but it's not like Eric's out weeding. Nobody's out there weeding. So in that realm we've kind of solved the problems of having excessive weed pressure. That's what I meant earlier. But yes, there is ... It's developed organically, kind of a division of labor in that Eric really focuses on soils, and cover crops, and tillage, and my real love is plants. So I do all of the seeding in the greenhouses. I'm the one who decides which crops are going to be grown, when we're transplanting. I and the other woman who helps me, we do all of the harvesting and the work in the packing shed, as well as I do all the marketing. We do one farmer's market a week, and I hire five other people, and they're all friends, and we just had this very good market. And then on Wednesdays I do deliveries to restaurants. So Eric doesn't have to do any marketing. So those things. It's just there's a real division about who's responsible for certain aspects of running a farm.
- Chris Blanchard: Now in the greenhouse, you talked about doing the transplant production, I think you guys have an interesting greenhouse setup. Can you describe how that works on your farm?



- Anne Nordell: Yes, we do. It's a fairly small structure, but it's designed with bottom heat, so there is a barrel stove with a chimney running the length of the greenhouse, and then a chimney out the back, and on top of that chimney, there is a grate, and we've put about 18 inches of stone on top of the grate. The whole idea is we run a very short, hot fire, initially about six o'clock at night, through this system, and it heats up the stones, so that the plants are getting a lot of bottom heat, but not a lot of excess heat in the whole structure itself. So overnight the air temperature could be 55 degrees, but the soil temperature stays about 70, and it's worked very well so far.
- Chris Blanchard: How big of a greenhouse are you heating with that system?
- Anne Nordell: Oh, maybe, I don't know--
- Eric Nordell: Twelve by ...
- Anne Nordell: 12 by 16.
- Chris Blanchard: Okay.
- Anne Nordell: And then we have another greenhouse that is unheated, so we're actually, maybe not the most efficient, but we do move ... As the plants get bigger, we move them into another hoop house before they're transplanted out.
- Chris Blanchard: Well, and most efficient or less efficient, I mean, maybe less efficient in terms of labor, but more efficient in terms of the heating resources that you're using.
- Anne Nordell: Oh yeah. We use, probably, I don't know, a quarter of a cord of firewood all season long to heat the greenhouse. I mean, it's a very small amount.
- Chris Blanchard: Anne, are you starting all of your own plants in there. When you talk about transplanting onions, and you talk about a quarter of a cord of firewood, does that include seeding onions at this time, here at the end of February, early March?
- Anne Nordell: Yeah. Mm-hmm, mm-hmm (affirmative). Yep.
- Chris Blanchard: Wow.
- Anne Nordell: We also do, I must say, we have an enclosed glass porch off of the south side of our house that we do initially start our onions and the earliest crops out there. We have a source of heat from our ... we have a wood furnace in the house, and that pumps out heat into the front porch, so I can have maybe 40, 50 flats out on that French porch before it goes out to the other greenhouse.
- Chris Blanchard: When you're managing the harvest process, are you using the horses to get crops out of the field, or is that something where you're moving things back up to the packing shed by hand?
- Anne Nordell: We use a pickup truck.
- Chris Blanchard: Oh, okay.



- Anne Nordell: We're taking everything out of the field by hand, but we have a pickup truck on the edges of the fields. And we're harvesting really, really early in morning. We're doing a lot of greens, and maybe I'm impatient, but I like to get up there fast, instead of having to bring the horses in, feed them, harness them, take them up. So life's a compromise, but I love my pickup truck.
- Eric Nordell: We didn't start doing it for this reason, but of course food safety is becoming a bigger and bigger concern, and having work animals in a crop that you're harvesting isn't really an ideal situation, so by using the pickup truck, we kind of keep that out of the equation.
- Eric Nordell: Maybe some of your listeners are not aware of it, but there's thousands of acres of produce being grown now by the Old Order Amish and Mennonite communities. It's kind of saved many of those communities as dairy farming has become so difficult. They're using all of what you would think of typical market garden implements: plastic mulch layers, water wheel planters, mulch lifters. Most of those farms are designed so that there is a drive lane, maybe there's eight, 10 beds of vegetables, and then a drive lane planted to a cover crop or a perennial grass, and that's where the team and wagon, sometimes using a boom conveyor, goes through so they aren't actually taking the horses into the field.
- Chris Blanchard: And Anne, when you said you're parking the truck at the edge of the field, do you guys have lanes between these 60-foot-wide blocks of produce and cover crops?
- Anne Nordell: No, it just goes around the perimeter of the market garden. The half-acre strips are 380 feet long, so say we're harvesting ... We'll harvest half that field length at one end, and then we'll move the truck around to the other end, so we're only walking in and out, whatever that is, 180 feet or something. We don't have the pickup truck going through.
- Chris Blanchard: And I'm just curious. Is there a reason that you guys haven't implemented a harvest lane system?
- Anne Nordell: I don't know. I guess, just ... we have to change. We're not good at that.
- Chris Blanchard: Okay, that's good enough for me.
- Eric Nordell: Well, I think one thing we've noticed is we have dramatically reduced the weed pressure in the fields. Where we see weeds are encroaching from the edges, whether it's a quackgrass rhizome, or the implements, or on our boots. We're walking through weed seeds in the wet dew, and then bringing them into the fields. You can very clearly see that it's the first [funny 01:02:50] seed. If you're going to have to do any weeding, that's where it will be. So if we started implementing permanent lanes, it's just going to create that many more edges. And so again, it's kind of a trade-off between efficiency of weed management versus efficiency of harvest. I don't know, it's kind of interesting. So many growers we know are focused on reducing the number of steps they take, and of course that's a great thing, but we always found it was really good for our bodies to get up and walk. If all you're doing is in a stooped position, and then right to the vehicle, you can get a sore back much faster that way.



- Chris Blanchard: We've had Ben Hartman, who wrote the book *The Lean Farm*, on the podcast quite a while back, and he talked about, and I've seen a lot of conversation recently about this concept of muda, which is waste, in a lean system. It's interesting, what you're saying there, Eric, because you could look at the Beech Grove Farm system and say there's a lot of waste. There's a lot of time feeding the horses. There's a lot of monkey business with making your own compost rather than just buying it in. There's this, like you just said, there's picking up, harvesting a case of lettuce and then standing up and walking it to the end of the field. It seems like you guys don't look at that as waste, though. That's actually part of the system.
- Anne Nordell: Exactly. You have to sustain yourself in order to do this. We could have easily designed some amazingly efficient system, and we would be able to expand, and we'd have all kinds of things going on, and we'd probably not be having fun anymore and enjoying ourselves. We've just been very, very conscious of that. I mean, that concept of time is money: yes, but also this is our life. It's not just our work. We're not always trying to get things done as fast as possible so that we can move on to the next project. When you stand up ... You're harvesting lettuce, and you stand up, and you walk out to the pickup truck, you're actually seeing beautiful mountains around you. I mean, it sounds kind of hokey, but you actually get up and look around, instead of just having your head down.
- Eric Nordell: We actually picked up Ben Hartman's second book at the PASA conference this weekend, and-
- Anne Nordell: It's great.
- Eric Nordell: ... it is just a phenomenal, well-written book. Incredible visuals. All his crops look great. And I was struck by the same thing as you, Chris, that in some ways, we are both trying to cut waste out of our systems. We've just done it in very different ways. He went away from the cover cropping to using large amounts of compost. We're making very small amounts of compost and doing lots of cover crops. Some ways, I think it's the same goal, just different paths to get there, but I look at a lot of the pictures of Ben and his employees harvesting, and they're always bending. Their bodies aren't upright or straight down, they're always to the side.
- Anne Nordell: Twisting.
- Eric Nordell: That can, ergonomically, may not be the best over the years, where you have a single row of salad mix. I know it sounds crazy, but you can straddle that row, you can cut it very quickly, and it's good for air circulation and other things like that, but ... It's different aspects of lean, maybe. In fact, we spoke out at the Ohio Vegetable Growers conference last winter, and one of the farmers from the Pioneer manufacturing company, they make horse-drawn equipment, they've implemented the lean system, and one of them came up to me and said, "Have you heard of this Ben Hartman? Some of the things you're doing just really look like lean," and we hadn't even heard of the concept at the time, but we're glad we made the grade.



- Chris Blanchard: And I just think it's interesting because it shows that there's a lot of different ways to think about lean, or to think about even that concept again of waste. And it's not just that it has to lead to one particular farming system.
- Anne Nordell: Absolutely. Our system of the every-other-year cover-crop/cash-crop thing, we were able to do this because we bought land that was relatively cheap, and we could afford to do that. And that allowed us to do this, so that we could become, in a sense, more efficient with our harvesting and planting so that we weren't spending all of our time weeding. That's our basic concept. We totally understand people that are in areas where land is extremely expensive, they have to really do things on a much more concentrated area, and they have different methods. There's no one right way. It's just the way we've kind of looked at our environment here.
- Eric Nordell: The length of the field is more efficient to work with horses. A 50-foot bed, we would be turning all the time, and that is, at the end of the rows, to come back into the next row, and that is slow going with a team of horses. It requires a fair amount of room.
- Anne Nordell: Again, it's what your experience is. When I was out in the state of Washington, we had rows that were half a mile long, so 380 feet doesn't seem that long to me, and 50 feet seems really short. It is really all relative.
- Chris Blanchard: I remember one of the first farms that I worked on, Harmony Valley Farm in Wisconsin, getting dropped off in the morning at one end of the row of zucchini, and being told by the farmer, "I'll be back in three hours to pick you up."
- Anne Nordell: Right, right.
- Chris Blanchard: I mean, interesting that you mentioned the ergonomics of the harvest. I mean, Anne, when you're harvesting lettuce, you're straddling that row, and just going down and cutting those lettuces while you're basically on top of that.
- Anne Nordell: Right, right. I'm not to the side at all, so my waist isn't twisted. I'm right over it. I can harvest 25 pounds of mesclun in about 20 minutes, so it just goes zoom-zoom-zoom, or heads of lettuce, it goes really fast, you just-
- Chris Blanchard: And then with the mesclun, when you're talking about a single row, of mesclun, is it really just a single row, or is this like a four or six-inch-wide band?
- Anne Nordell: It is. It's direct seeded pretty heavy. So it is, maybe it would be considered a wide bed, but it's certainly not six rows to a bed. It is just a fixed seeding of mixed lettuces that we harvest them maybe a little taller than some people do. It might be four or five inches tall. It works for us.
- Chris Blanchard: Are you willing to share the economics of your farming system. I mean, can you tell us what kind of gross sales you're getting, and how much of that you guys are hanging onto in a year?
- Anne Nordell: Mm-hmm (affirmative). We average about 85,000 a year, and our costs usually are about, our farm costs, are usually about 40,000.



- Eric Nordell: That's as if we're reporting to IRS, looking for every cost we can.
- Chris Blanchard: Right, right, and of course when we talk about farm profits, there's a huge variability in that, right? In what you report to the IRS and what you keep, but it's always interesting to get at least some sort of an idea. I mean, \$85,000 off of three and a quarter acres of vegetables is certainly nothing to sneeze at.
- Anne Nordell: Right.
- Eric Nordell: And one, I think, big difference also, between our farm and many other small-scale market gardeners is that due to our location in the mountains, where we have a relatively cool, short growing season, and our market in Williamsport is down along the river, it's almost two growing zones warmer, is that the growers down there are going to be so much earlier than us with warm-season crops: tomatoes, peppers, and melons. So our niche has really been the cool-season crops: the leafy greens and root crops. So where a typical market garden might gross a third of their income on tomatoes, for us it's, I don't know if it's even 5%. It's a very small percentage, just a few rows in our high tunnels. So not only are we grossing that on widely-spaced rows, but not the highest-value crops either.
- Chris Blanchard: One of the things that I feel like has really changed in farming over the last 20 years, and when I say stuff like this I always feel like I'm acting like an old-timer, which I'm not really an old-timer, but it does seem like the weather has gotten a little bit nuttier in the last 20 years. More heavy rainfalls, more extended drought periods, and you mentioned that you guys aren't using irrigation. How have you guys adapted to this changing weather over the last 30-some-odd years of farming?
- Anne Nordell: Well, we actually are growing a lot of our own ... we're mulching a lot of our crops now with that in mind. We have seen some real temperature variations, and we're growing our own mulch in like a ... for example, it could be, in one of our fallow areas, where we have a cover crop of rye, we're letting that rye get fairly mature, and mowing it, raking it, and then moving that mulch over into our onions. So the onions have that moisture all season long, and it keeps the soil cooler, and we're always kind of trying to minimize moisture loss. We're doing that whole thing that Eric was describing earlier about shallow tillage. It really is amazing: we transplant every single week without any irrigation at all. Lettuce, and in the middle of the summer we're transplanting our fall broccoli, and there's always enough moisture to get those crops off to a good start.
- Chris Blanchard: I hear a lot of things on the podcast where I go, like, "Really? Can I believe that?" Because that seems absolutely contrary to my experience as a market farmer.
- Anne Nordell: Well, there are days when I also go, "I can't believe there's actually really good soil moisture here, because it's been hot for 10 days, and we haven't had a drop of rain." I think it's this whole idea of creating a dust mulch in the soil so that you've got this capillary action. The capillary action comes up to that level of that dust mulch, and the dust mulch acts as a barrier for moisture to evaporate. That's what we've done all these years, and it really works.



Chris Blanchard: With that, we're going to turn here to our lightning round, but first we're going to get a quick word from one more sponsor.

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Chris Blanchard: Eric, what's your favorite tool on the farm.

Eric Nordell: I'd have to say my favorite tool, and I've already referred to it a few times, is the riding cultivator. It's just such a flexible tool. It's so much fun to use with the horses, and we've found so many different ways of using it. We've actually initiated several surveys of teamsters, horse-powered market gardeners, to try to develop some benchmark numbers. They're rare enough, just for vegetable production, but there's really nothing been done out there for farming with horses, growing vegetables. One of the things we did was track all of the hours we spent for each implement used on the farm, and I was surprised to realize I spend half of my time on field work, on that riding cultivator. But only a handful of those hours were actually devoted to cultivating for weed control. Most of the cultivating we're doing is for moisture control, just like Anne said, trying to preserve a earth mulch to slow down evaporation. We use the cultivator for forming planting beds, for doing the minimum tillage, for marking planting furrows. So I guess it's ... I'm glad it's my favorite tool because I spend an awful lot of time on it.

Anne Nordell: He has four of them.

Chris Blanchard: Nice.

Anne Nordell: He has four cultivators: the fleet. He's managed to adapt those cultivators to things that aren't traditionally used. He's always looking in these different magazines and catalogs about new tillage techniques that larger farmers are doing, and then he kind of adapts that to this small implement. So he's not having to change all of those things. Just using one cultivator, he'd be constantly changing shanks and things like that, so having four makes it a lot easier.

Chris Blanchard: Anne, what's your favorite crop to grow?

Anne Nordell: I love lettuce. We grow, I don't know, five or six different varieties of lettuce, just for heads, and then we probably seed, I don't know, six, eight different varieties for the mesclun mix, so I think lettuce is probably my favorite. And we eat salad every day, so it has to be it.



- Chris Blanchard: Is there one variety that stands out in your mind?
- Anne Nordell: Well, for a Bibb lettuce, for years we've grown a variety called Hermosa, which you can only get from one seed company. I think it's Turtle Tree Seeds. It used to be available through other companies, but no longer. That is a beautiful Bibb. And then also there is a romaine called Kalura, also from the same company, that is just lovely. It's big. It has great flavor. Seems to hold up in weather variations. Those two are probably my favorite.
- Chris Blanchard: Eric, what's Anne's farming superpower?
- Eric Nordell: It's interesting you used the term superpower, because I always refer to Anne as Super Anne, and she has many superpowers. She seems to be just able to do anything well, from planting, to seeding, harvesting. Even though we don't have more than one employee at this point, she seems to know how to handle people so well. Crowds at the farmer's market, as president of the farmer's market board. Sometimes working with farmers is like herding cats, and she's a great cat herder. A lot of people just seem to love to talk to her, and she calls it therapy. And then, as Anne mentioned, after being hospitalized for a month four years ago, and a long, slow recovery period, she was really carrying the full load here, and just doing it without any problems. So I consider Super Anne is the secret weapon of our farm.
- Chris Blanchard: Anne, how did you and Eric decide to farm together?
- Anne Nordell: Well, both of us were on different farms, so I think both of us had farming in our blood at that point in our lives. Maybe I should tell you briefly how we met. I was a crew boss working on this organic herb farm for six years, and Eric was traveling across the country, working on different farms, and he called up and asked if he could work for a week or two on this herb farm, and so I hired him. So I was his boss, and I guess I got a sense of his work ethic. Anyway, it all just evolved from that. So I think, when we just ... right away when we got together, we realized that we wanted to farm together.
- Chris Blanchard: And then, before we get to our last question in the lightning round, you guys have a book, Weed the Soil, Not the Crop. Anne, how do people go about getting that?
- Anne Nordell: They can write to us, and it's a cost of \$10, with \$3 shipping, and send a check and we will mail it out to them. There's also a DVD of a workshop that we did, actually, out at the MOSES conference a number of years ago, that we also put together, so people can get a kind of visual of what our farm system is like.
- Chris Blanchard: What's the cost on the DVD?
- Anne Nordell: That's \$15 plus \$3 shipping. We do this just as an educational thing. It's not like we're making a lot of money off this. It's just to kind of share information. The book is, it's a booklet of a series of articles that Eric has written over the years for the publication The Small Farmer's Journal.
- Chris Blanchard: And the address that people would send a check to?



- Anne Nordell: It would be Anne and Eric Nordell, 3410 State Rte. 184, Trout Run, Pennsylvania 17771.
- Chris Blanchard: We will also put that address on the show notes page for this episode, so if you're out driving the tractor and didn't get that written down, you can go back and check for that later. I shouldn't say driving the tractor. I should say if you're out behind a team of horses.
- Chris Blanchard: All right, so finally, Anne, if you could go back in time and tell your beginning farmer self one thing, what would it be?
- Anne Nordell: Pace yourself. You don't have to get everything done in the first two years. Look about the long haul and think about, okay, is this still going to be fun after 30 years, 35 years? I think that's what I would say.
- Chris Blanchard: Eric, same question for you: if you could go back in time and tell your beginning farmer self one thing, what would it be?
- Eric Nordell: Get a crystal ball. I think location is such a critical thing for a successful farm. We located here because the land was inexpensive and we liked the area, but there wasn't a large, urban, progressive market in the area. We were relying on Anne's expertise with growing medicinal herbs, which we could dry and ship out of the area. We're very fortunate that we've been able to develop a fresh market, that's direct marketing, that has worked for us. I remember, talking about advice, I remember this man who was kind of a mentor to me, Dick Bliss. After we were married, and explained that we wanted to start farming, and he said, "You should make sure to locate somewhere where you have kindred spirits." We thought that was good advice, but it seemed like where all the interesting people were located, the land was very expensive, and where we could afford to start farming, was a very rural area. Both of us, because we love farming and associating with farmers, that didn't seem to deter us locating here.
- Eric Nordell: But the reason I say have a crystal ball is, we would never have realized that this would have changed from an area that was small, family dairy farms, to large pig and chicken CAFOs, or fracking natural gas would be taking place. In a sense, we almost feel a little bit alienated from the area we settled in, and that can happen anywhere. So where we felt we had kindred spirits, in the sense of a lot of farmer friends. They were not growing organic vegetables, but there was a lot else we had in common. Now we feel like there's a lot fewer people we have in common. It's almost hard thinking about down the road, when we really scale back on farming, where our social life will be at that time, when all of our satisfaction isn't coming from the farming itself. That might be a little too heavy.
- Chris Blanchard: That's okay. Sometimes it is heavy, right? That's just the reality.
- Chris Blanchard: Anne and Eric, thank you so much for being part of the Farmer to Farmer Podcast today.
- Eric Nordell: Well, thank you, Chris.
- Anne Nordell: Thank you.



**SHOW NOTES:** <http://www.farmertofarmerpodcast.com/episodes/nordell>

- Chris Blanchard: All right, so wrapping things up here, I'll say again that this is episode 159 of the Farmer to Farmer Podcast. You can find the notes for the show at [farmertofarmerpodcast.com](http://farmertofarmerpodcast.com) by looking on the episodes page, or just searching for Nordell, that's N-O-R-D-E-L-L. The transcript for this episode is brought to you by Earth Tools, offering the most complete selection of walk-behind farming equipment and high-quality garden tools in North America.
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- Chris Blanchard: Also, if you liked the show, please head on over to iTunes, leave us a review, talk to us in the show notes, tell your friends on Facebook. We're at Purple Pitchfork on Facebook. And hey, those codes that we give out, like the F2FSEEDS for High Mowing Seeds, for our sponsors to be able to track how many people are listening and enjoying the show, and the same thing goes, when you talk to our sponsors, the ones that don't do a discount code, make sure you tell them that you appreciate their support of a resource you value.
- Chris Blanchard: Now, you can also support the show directly by going to [farmertofarmerpodcast.com/donate](http://farmertofarmerpodcast.com/donate). I am working to make the best farming podcast in the world, and you can help.
- Chris Blanchard: Finally, please let me know who you would like to hear from on the show, through the suggestions form at [farmertofarmerpodcast.com](http://farmertofarmerpodcast.com), and I will do my best to get them on the show.
- Chris Blanchard: Thank you for listening, be safe out there, and keep the tractor running.