

Abby Morrison:

Hello, and welcome to this special episode of Field, Lab, Earth, where we're focusing in on practical transitions from conventional to organic farming. This episode is part of a four part podcast miniseries with a five part companion webinar series, and is hosted by Dr. Erin Silva, an assistant professor in the Department of Plant Pathology at the University of Wisconsin, Madison. You can find more information about these series and related resources, as well as how to get continuing education units for listening in our show notes or on our website, [fieldlabearth.libsyn.com](http://fieldlabearth.libsyn.com). That's Libsyn spelled L-I-B-S-Y-N. Today's topic is organic certification. Our regular programming will resume on March 4th with a special two part episode. Thank you to NCR-SARE, the North Central Region Sustainable Agriculture Research and Education Program, for the support of this episode. Let's talk about farming.

Erin Silva:

Welcome, everyone. We're here today to talk about organic certification, which is an important step in considering the transition to organic production. I'm here today with Harriet Behar. Harriet's been working in organic for over 30 years now, definitely one of the foundational people within the organic movement here in the Upper Midwest. Harriet currently works in the UW Madison Organic Grain Resource and Information Network, OGRAIN, as an outreach specialist. In addition, Harriet's been a long-term organic inspector working doing certifications and inspections for decades now, as well as is the current chair of the national organic standards boards, so knows the regulations inside and out. Welcome, Harriet.

Harriet Behar:

Hello.

Erin Silva:

So we're going to go through over the next 30 minutes some of the details and some recommendations in terms of how a farmer might approach the organic transition in terms of certification. And Harriet, you're the expert on this. Each operator must complete an organic system plan within the first year and every subsequent year. So can you tell us a bit about what is the organic system plan?

Harriet Behar:

The organic regulation mandates an organic system plan for every operation. And it basically covers all aspects of what that operation is doing, so everything from fertility management, weed management, natural resources protection, the equipment on your farm, all seeds that are used, the three year history of all the crops, and all the inputs that you have used before and intend to use in the future are all part of that current year's plan. And how the organic certification agencies have done this is they've made the application for organic certification to be that organic system plan. And it's not a narrative plan. The vast majority of them from the various 50 [inaudible 00:03:24] certifiers of the United States mostly have kind of multiple choice.

Harriet Behar:

So when an operator gets that organic system plan application, it might be a little daunting because they're typically from 15 to 20 pages long. But the good part of that is that once you do your first plan, your annual updates are much shorter. They're only about three or four pages. And again, most of it is multiple choice. And it is important that you don't leave the questions blank if you don't understand, or

it's not applicable because then your organic certification process won't move forward if the certifier gets an application that has a significant number of the questions not answered.

Erin Silva:

So if a farmer is considering transition, or if a crop advisor is helping a farmer through transition, how does the organic system plan get addressed through the transition process? How does this relate to a farmer consider transitioning to organic?

Harriet Behar:

Well, in order to be certified, you have to show that the land has not had any prohibited substances on it, or at least three years before the first organic harvest, so that's 36 months from the last application of the prohibited substance to the harvest of an organic crop. It would be a good idea to try to get ahold of an organic system plan so the farmer can see what type of records they need to start maintaining, so when they put in their application, they have all they need. Understanding what the rules are ahead of time can maybe even speed you along that journey to being certified because if the land hasn't had any materials on it, let's say it was conservation reserve program land or it was a pasture that nobody's spot sprayed, or a hay field that they didn't apply any materials to control leafhoppers, or whatever. That land may be ready to go.

Erin Silva:

That's good to know that some fields might not require the three year transition period, not that there's not a requirement that they haven't had prohibited substances applied, but there may be certain circumstances where they may not have been applied just due to general management. So we have this organic system plan in place that the farmer has developed. They're ready to go with becoming certified organic. How is that plan used in the annual inspection? And what type of other documentation is needed to verify these various aspects of the organic system plan?

Harriet Behar:

So in addition to that 15 page organic system plan, there will need to be some other documentation. For instance, what seeds have you used for those three years during the transition time? And what seeds are you planning to use the year of organic certification? Because during the transition, you cannot use genetically modified seeds. You cannot use seeds that have had a prohibited fungicide or insecticide applied to them. And there's also rhizobial bacterial that's used on alfalfa typically that is also genetically engineered. And so all of those things are not allowed. And that's why you have to have the documentation from where you purchased those items for seed tags and the invoices.

Harriet Behar:

The same thing with all the inputs, so they would need invoices and tags or documentation of what was actually in all the inputs that were used during the transition years. They also need to know all the activities that you do in your fields, especially for the year that you are asking organic certification. So let's say you're going to grow soybeans that are clear hilum, that are human grade soybean. There is a restriction on the use of raw manure. That manure cannot be put on that field sooner than 90 days before the harvest. Well, that's probably not going to happen. But let's say you're growing edamame soybeans, which actually was a human grade food, is harvested much quicker than a hard soybean seed that's used for making soy milk and tofu.

Harriet Behar:

And that crop is actually the outside of the shell is consumed by people. So the application of manure moves up to 120 days. So this is why they need to know exactly what date you applied what and when, and which field, and which crop it's growing. And most of the certifiers have really good forms that have all the information in one place, so it's real easy for you to fill it out and have it there. Also, the other thing too would be keeping track of: Where are you going to store your organic products? Or has the bin been treated with malathion, or phostoxin, or other prohibited materials? Are you cleaning it out? Let's say it held genetically modified corn the year before, and it has an air floor. You would want to pull out that floor, clean everything out underneath to make sure that when you turn on the fans and your organic corn is in there, that you're not going to be blowing up chaff from genetically modified corn. And then when it gets taken to a buyer, they'll find residue of GMO in your organic corn. That would not be a good thing.

Harriet Behar:

So figuring out all the items from fertility and tillage, to cultivation, to harvest and storage, and even sales, how all of that is going to be managed to protect the integrity of the organic crop, that it's not be commingled with non organic in any way, and does not have any contact with prohibited substances.

Erin Silva:

And I imagine that many farmers considering transition might be interested in just transitioning some of their acres, not necessarily going in with both feet and transitioning their whole farm. Is this possible to develop organic system plans to address these parallel operations?

Harriet Behar:

Yes. And that's a good question. So it is not required that the whole farm be organic. So it could be done on a field by field basis. But once a field has been transitioned to organic, it really is not supposed to go in and out, in and out, between organic and nonorganic. So if you do have organic corn and nonorganic corn growing on the same farm in separate fields, that's okay. But you will have a lot more scrutiny on all the use of your equipment. For instance, if you use the same planter for planting the nonorganic seed and the organic seed, how did you clean the planter between that treated seed? Right? Most of the nonorganic seed is treated. And you can't have any residue of that seed treatment on the organic seed corn, which typically is planted later than your nonorganic.

Harriet Behar:

So you'd have to have how you do it, documentation of what you did, and when. You'll just have a lot more scrutiny for everything. I mean, even so that would mean there's just a lot of little details to make sure that especially if you're growing the same crop, which obviously you'll be using similar equipment on both fields, that it's completely clean between the two. So it does work better if, perhaps, let's say one year you're growing organic corn and your conventional field is growing soybeans. Well, then we're not going to have as many chances of possible commingling, so that's one way to make it easier in the organic system plan of keeping it separate.

Erin Silva:

So it sounds like a really intimidating, daunting process. But even with a parallel operation, it is very doable once you get the initial plan set, once you get in the habit of it, and using those great forms that

are available through the different certifiers. So in terms of the organic inspection, can you describe a little about what happens during the organic inspection, what activities are done, how long it takes, what the inspector is looking for?

Harriet Behar:

Sure. So the inspector will look at all of the fields. That includes nonorganic and organic. They'll want to look at all of the fields' borders to see if a buffer zone is needed. They'll look at all the equipment to make sure if you say that you rotary hoeing. Is there a rotary hoe? They'll look at the cultivation equipment. They'll look at all the storage locations to make sure that there isn't a chance of contamination with prohibited substances. They'll look in your seed boxes, in the planter, to see if it's clean, or if there's residue of seed treatments. And then of course, they'll look at the documentation that you've maintained, information on your seed, your inputs, your field activities. And most farmers either have a little field notebook or a calendar where they just jot down cultivated fields, five, seven, and 11 on a certain day, or whatever, just to kind of show that the organic plan, if you say your core weed management, that you're going to cultivate, then we look at the field activity log to see that you actually were cultivating.

Harriet Behar:

And typically for a grain operation, if the fields are within two, three, four miles of the home farm, that will usually take between two and a half to four hours, especially if you have your paperwork ready, it could even go a little bit less. And that's done on an annual basis during the growing season. So inspectors don't come out in the winter and try to look at a field that's covered in snow. It's during the time when the crop is growing. And usually, the inspector will get out of the pickup truck and kind of assess the weed management and things like that.

Erin Silva:

It's good to know that the plan's not so rigid that it doesn't allow for farmers to adjust, giving the weather of a season, or market changes, that there is some flexibility for a farmer to make adjustments in a given season.

Harriet Behar:

Yeah. And the documentation is one area where farmers get a little bit intimidated. But it really doesn't have to be that difficult. Just making a place where you write things down, or a file folder, or a shoe box, or whatever you use to put your seed tags in and put your invoices in. Keeping those documents in one place and just making it a habit to keep track of it. The other thing too is that organic is very much based in management and not as reliant on inputs. And so over time, when you have records of: When did you plant things? Which inputs did you use and at what rate? You'll all of a sudden be able to look back and be able to see. Oh, that really helped my yields over here, or whatever it might be. We all think that we've got good memories, but when you're thinking back five, seven, 10 years, you're not going to always remember. But you will have those records to help you with better planning.

Harriet Behar:

And I will say that as an organic inspector, many of the organic farmers who have the nicest fields typically have some of the better records as well. And they talk about how they refer back to those records for each even individual field to understand. And they can kind of manage those fields to their

optimum yields. And having those records is really a good thing. So I'm a big rah, rah for keeping good records, not just for the organic inspector, but also to help in your organic management.

Erin Silva:

I've heard that same thing, Harriet. And these records seem like they take a lot of time, and they're a big burden, and it's just for certification. But it really can help a farmer or a consultant be able to see trends over years and in specific fields, and be able to optimize management. So you just gave some tips and terms of preparation for the first inspection, the importance of keeping and maintaining documentation. Are there other hints that you can provide in terms of how a farmer can be prepared for this first organic inspection?

Harriet Behar:

Well, one of the main things is really knowing if the inputs that they used were allowed under organic production. And I think it's always important to start thinking about who your certifier is. And they can tell you if the material that you want to use during your transition is okay or not. The farmer can ask the manufacturer if they have any approval from organic certifiers, so then of course verify with the certifier that that's true. There's an organization called The Organic Materials Review Institute, OMRI, O-M-R-I. And their website is [omri.org](http://omri.org). They have brand name products on there that are all approved. MOSES here in the Upper Midwest, OGRAIN, and other organic and sustainable agricultural organizations can let people know what's allowed or what's not. But always check with the certifier that you'll be working with to make sure that it's allowed.

Erin Silva:

So it sounds like developing a relationship with a certifier through transition could be pretty important, not only to get those different record keeping forms, but to be able to ask questions on what is allowable under certified organic management. How does a farmer find a certifier?

Harriet Behar:

It sometimes works well if you're being certified as organic and that inspector comes to your region, and the cost of bringing there is split amongst more farmers that can save you some money. There is a listing on the national organic program website. OGRAIN has a resource list up on our website and so does MOSES. Going to field days that are focused on sustainable organic agriculture, you'll be able to find some of these resources. But really, if you know of anyone in your neighborhood who's organic, ask them who they're certified with and see if they're happy with their service.

Erin Silva:

My understanding is they all have a slightly different fee structure, so doing some shopping around, asking people if they've been happy with the service from the certifier, certainly is something that's valuable.

Harriet Behar:

Yes. And so the cost could probably be around \$800 to \$1200, something like that. But there is something called organic certification cost share that can either be, you apply for it either through your county farm service agency office, or through your state department of agriculture. And it will cover up to \$750 or 3/4 of the cost of your organic certification, whichever is less. So if you paid \$1000 for

certification, you would get a check back for \$750. So the organic certification would cost you \$250 and not \$1000, which is a pretty good deal.

Harriet Behar:

Plus, if you happen to have livestock that you're also certifying, that's \$750 or the 300, or the 3/4 of the cost goes by what's called a scope. And the scopes are crops, livestock, handling, and wild harvest. So really, in the end, your certification is not that expensive.

Erin Silva:

That's good to know that there's that resource out there to help defray the cost of certification. So you mentioned a bit about buffer zones. And buffer zones are needed between organic and nonorganic land. Can you describe more about buffer zones?

Harriet Behar:

So depending on the situation, the regulation states that it must be of sufficient size to prevent the unintended application of a prohibited substance. So if the neighbor is hiring an aerial sprayer, the chance of drift is much greater from aerial spray than from someone who's pulling a sprayer with their tractor. A typical field where the neighbor's just spraying with their tractor and pulling a sprayer, it's usually about 30 feet is required of the buffer zone. But an aerial spray, it could be 60 feet, 100 feet. It really depends on what's being sprayed and how often. And that's something that the farmer, that certifier, and the inspector all discuss.

Harriet Behar:

And it's not just spray. It could also be runoff. Let's say the conventional field is higher than the organic field. And there's no grassy fence line, or trees, or brush to contain any runoff. If those farmers are tilling right up to the fence line, the chance of runoff is much greater. And so there may need to be a buffer zone of 60 to 100 feet, depending on the slope on what's being sprayed and what the crop is up above.

Harriet Behar:

Now as far as strategies, I've seen a lot of farmers who maybe have a small beef herd, that they're not getting certified. They're either selling to family and friends or whatever, so they're maybe even raising the beef organically, but they're not selling it organically, so they just leave those buffer zones in permanent hay, and go in and roll that up and feed it to their beef herd. And then it's a totally different crop. There's nothing that says that you can't grow the same exact crop in that buffer zone. But then you would have to keep records of what you did. So it's nice to ... I see most farmers actually leaving those buffer zones in some kind of grassy hay, and just rolling that up and either using it themselves or selling it to others as nonorganic hay.

Erin Silva:

That's interesting that there's not necessarily a hard and fast number for the buffer zones. So during the inspection process, are there any tests that are required, any specific soil tests, or residue tests for the presence of prohibited materials?

Harriet Behar:

So there is the rule that if you use micronutrients, you must have a soil test to show its use. So if you're using, putting in manganese, boron, calcium, sulfur, all those things, you need to have some kind of soil tests that show that you needed to have it, something like use the manure or lime that's not as much of a requirement to have a soil test. And certifiers are actually required by law to do residue testing of crops either in the field or in storage of at least 5% of the entities that they certify. So at some point, you might just be chosen as someone who will have a residue test. Now that is covered by the certifier, not by the farmer. So there is residue testing that goes on. And a lot of times, it'll be based on risk. But sometimes it'll also just be random testing that is done.

Harriet Behar:

So no one is testing the soil to see if there's any residue, prohibited materials, because a lot of times that's difficult to find. But there would be some sampling done on organic farms. And it's just hard to know who going to get it this year. But 5% must be tested for what they call kind of an organic screen, which does a wide variety of pesticides, fungicides, and other residues that could be present, either in the crop growing in the field or in storage.

Erin Silva:

So we have the possibility of being chosen for that residue testing. What is the chance of a farmer having a surprise inspection? Usually these inspections, a farmer is given some notice, about two to three weeks notice. But is there ever a chance of the farmer getting a surprise inspection?

Harriet Behar:

And that's another requirement by the rules that at least 5% of all operations are surprise inspections. Those typically are not a full inspection. They'll be somewhat targeted. Those are typically based also on some sort of risk. So let's say you're growing a significant portion of nonorganic. And at your regular inspection, it looked like there wasn't very good storage to keep the two separate, the surprise inspection might include also taking samples out of storage and making sure that there's no nonorganic corn in your organic corn bin or whatever.

Harriet Behar:

So yes, there will be surprise inspections. There's times too that when there's been some poor record keeping by the farmer, the certifier might send out a surprise inspection just to make sure that those records are being brought up to what's necessary to prove that the organic integrity of the crop is being protected. And you just have to think though, there's a reason that organic costs more. The consumers are trusting that organic label, that the farmers are doing what they say they're doing, and that there is this oversight from seed to sale of the organic crop. And I have been quoted many places as saying, "What you do out in the field makes you an organic farmer. But what you do in your paperwork makes you a certified organic farmer."

Erin Silva:

Well, that's good for farmers considering transition to know that there is this rigorous part of the certification process, which only helps the integrity of organic and the confidence to consumers, which again will only help the stability and the growth of the market. So if farmers are making this commitment to transition and to go through this process, that the processes are in place to make sure that certified organic farms are indeed maintaining the integrity that consumers are expecting. So



moving to organic production, can you talk about what are some of the typical production changes that a nonorganic row crop or grain farmer might need to do during the transition and once they are organic?

Harriet Behar:

Yes. So in organic, a soil building crop rotation is maintained. So a crop rotation of corn, soybeans, corn, soybeans, corn, soybeans, that is not considered a soil building rotation because in organic, most of the time you'll be doing some tillage, although there is an organic no till system, where you roll rye and plant into that. But basically, changing the various crops and including a small grain and a forage in there is going to improve the structure of your soil. You're going to then have a legume in the rotation. The different plant species break up diseases and insect problems, and even change which type of weeds you will have by changing and rotating.

Harriet Behar:

And this is, while we are continue to learn how crop rotations can be used in a very beneficial way for the current crop and subsequent crops, this is something that we've known for millennia, that you need to be rotating those crops to break the those insect, disease, and pest cycles.

Erin Silva:

So Harriet, you just talked about some of the typical production changes during the season that a farmer must consider during the transition to certified organic production. Are there any specific rules on harvest, post harvest, storage, or transport of those organic crops?

Harriet Behar:

Yes. It's important that you keep everything separate between organic and nonorganic. If you're hiring a custom combine operator, there would have to be cleaning of that combine. Open all the doors, run it empty, and probably even run a little bit into the field and run through some organic crop, and then separate that as a nonorganic purge of the combine to really kind of scrape everything clean. And then document what you did with that purge and how things were cleaned. Like I said about the bins, make sure the bins are clean. You can't use any herbicides around the outside of the bin. You would need basically a 30 foot buffer where no prohibited materials are used around the bins.

Harriet Behar:

When a truck comes to the farm to pick up your crop, again, your auger should be clean. And you need to make sure that truck is clean. And there'll be usually some documentation of a clean truck affidavit. And again, just think about it. That trucker, he's not going to lose organic certification or his organic premium if that truck is empty, but you will. So climb up in that truck and look down in it. Now depending on the buyer, could be the buyer has sent the truck, and at the previous load or many loads were all organic crops. Well, then that's what the clean truck affidavit would say is that the previous load was organic, or perhaps even that grain truck is dedicated to organic production.

Harriet Behar:

The testing that's typically done, especially on GMOs, it's been found to have an accuracy of something like you could find that there's 15 nonorganic soybeans in a load, which is a lot, 800, whatever, 800 bushel. They can find it. So it's up to you to make sure that everything that where your organic crop is,



that there could not be any chance that there would be either residue of a GMO or a prohibited substance.

Erin Silva:

So it sounds like there's some changes in production and some different record keeping strategies that are necessary for farmers entering certified organic production. Where can farmers or crop consultants go for more information to assist through this process?

Harriet Behar:

Well, the OGRAIN Listserv would be a wonderful place. We have a whole resource of buyers, suppliers of approved organic inputs, organic seed suppliers, so that would be one place. We also have a Listserv where farmers and researchers discuss various issues. And so there's a lot to learn, so that's always a good place. And so if you have questions, you can put it out there and see if anyone has run across the same issue and how they solved it. OGRAIN also has a winter conference, which occurs usually the last weekend in January in Madison, Wisconsin.

Harriet Behar:

The other thing too that OGRAIN has is we'd have a YouTube channel. And in addition, we also have field days. MOSES, the Midwest Organic and Sustainable Education Service, has fact sheets. They have a winter conference. They have a mentoring program, where they work with OGRAIN to help new to organic production farmers. They pair them with an existing well-versed organic farmer, usually in their region. Groups like Practical Farmers of Iowa, land stewardship project, land connection, Michael Fields. These are in Iowa, Minnesota, Illinois, and in Wisconsin, are not necessarily totally organic focused, but they have many information and resources that are useful to organic producers.

Erin Silva:

Thank you, Harriet, for sharing your knowledge and providing both farmers and consultants, working with farmers considering the transition to organic production. It sounds like there's some great resources out there and some great opportunity for farmers looking to expand their markets.

Harriet Behar:

Thank you.

Abby Morrison:

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Abby Morrison:

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