Hello, and welcome to the Small Farms Podcast, a production of the Small Farms Program at Iowa State University Extension and Outreach. Our podcast covers the opportunities and challenges associated with rural life.

I am Joe Hannon, Commercial Horticulture Field Specialist with Iowa State University Extension and Outreach. Welcome to the Small Farms Sustainability Podcast. With me today is Dan Fillius of the ISU Produce Safety team. Welcome, Dan. How are you doing today?

I'm feeling great.

Awesome. Well, thank you for joining me today. Dan, tell me a little bit about yourself and what you do on the ISU Produce Safety team.
Sure. So on the ISU Produce Safety team, I’m doing the Produce Safety Alliance Grower Trainings, I’m doing On-Farm Readiness reviews, which is going out to farms and helping farmers walk around and identify items that they might want to address from a food safety standpoint. And on the side, I’m also managing Middlebrook Farm, which is a small farm that’s getting up off the ground in Cumming, Iowa, just south of Des Moines. And I’ve got 12 years of vegetable growing experience at other farms around the country.

Great. I knew you had a lot of experience, which is why I wanted to bring you in today to talk a little bit about standard operating procedures or SOPs for short, especially in light of the Coronavirus COVID-19 pandemic that we’re dealing with currently. So Dan, why should farmers be thinking about SOPs, especially in light of the situation that we find ourselves in right now?

So SOP, is the main point for an SOP is like a recipe card for making a cake. You want to be able to do the the steps in the right way every time so that the final product is what you’re looking for in a cake, obviously, that there’s specific amounts of each ingredient, and a time when you put it in, but for cleaning and sanitizing for example, having that process in place on your farm, especially if you’ve got a lot of different people who could each do that process in a different way. Be at hand washing or sanitizing your harvest totes. Having something written down so that everybody is following those instructions, that standard operating procedure is super important to make sure that it gets done right - little variances, if you will, can potentially have a serious impact.

I like the cake example Dan, I can give you water milk, flour and eggs. But unless he told me how to mix it together, I’m gonna get a solid blob of unedible stuff. Right?

Yeah. Or if you have, you know, swap the ratio of salts for sugar, you know, that’s gonna taste totally different.
Joe Hannan 03:06
Right, right. Yeah. In light of the situation right now, I'd add to having SOPs there is really important as we look at, you know, somebody that gets severely ill with Coronavirus, could be out two, four, six weeks from the job and you know how to do something on your farm doesn't necessarily mean your employees know how to do it doesn't necessarily mean your spouse knows how to do it if it's a two person operation. So having those things written down, I think really helps protect yourself in light of something happening.

Dan Fillius 03:41
I agree 100%. And you know, it's a good opportunity to start doing this. It's not like this is the only situation where standard operating procedures are useful, or the only situation where you could get laid up for that long. Let's say you broke your leg and you couldn't go you know, these things that could be routine, and that we just don't even think about, you know, a car accident, God forbid, but it's these SOPs are useful, and now's a good time to get those in place.

Joe Hannan 04:07
I agree, Dan. So what types of SOPs do you think the farm should really focus their time on both on the food safety side and just in general as well?

Dan Fillius 04:20
So mixing sanitizer, is a huge one that always seems on farms that I've worked on always seems to be somebody scrambling for the MSDS sheet or the manufacturer’s instructions, you know, where is that thing looking for it on their phone? And then trying to do some calculation because they want to mix up a smaller batch than what it says on the sheet is a teaspoon one quarter of a tablespoon, or is it a third of a tablespoon? I can't remember. So having that all written down, saving you that time of redoing that calculation every single time. That's huge for that.

Joe Hannan 04:55
How many hours are wasted trying to figure out what that new calculation is right?

Dan Fillius 05:00
Yes, pesticides, sanitizers, all these things. And the other one is just what is your routine?
What is the actual label for the sanitizer say, so you’ve got it mixed up in a spray bottle, okay, good. But then you take that away from where you had that label if you have that label at the mixing station, and then the label is going to be the thing that says, let it sit for 10 minutes, then rinse it off, for example. And you’ve got that down to the floor, and you just want to get packing or be done at the end of the day. And then you leave it set, but don’t rinse it off, or what have you have those things written out and posted where the information needs to be. So those are two big ones that both for food safety and COVID Cleaning, I think are good right now, as far as other things, I just think start with what you need now you don’t need to write your harvest protocols out right now. But what does somebody have to do to the transplanter running at this point? Are you mixing in any fertilizer into the tank with either transplanter? If so, Does everybody know how to do that? What’s the way to calibrate your direct cedar? Things like that, make sure that those things are easy to come by.

Joe Hannan  06:07
Really good suggestion Dan there is to look at what you what are those here now things over the course of the next four to six weeks, focus on those SOPs, focus on the sanitizer ones and then build out and expand from there. I think that’s a phenomenal suggestion.

Dan Fillius  06:24
And they don’t have to be difficult, like something standing in the way of so many people doing these things is they think it has to be perfect. And it really doesn’t just make it good enough. That good enough is good enough. You know, next year, you’ll be like, Oh yeah, I made that mistake in it. And it and we had this problem because of that, well, if you don’t have your recipe, you’re gonna have problems anyway. So just just make it good enough and correct it little bits here and there, could just be a piece of loose leaf paper with, you know, five bullet points on how to do something. I know that some of the Amish farms that I’ve visited, they just have it all written out with a ballpoint pen on a piece of paper stapled up to the wall. And that’s it. And that doesn’t have to be any fancier than that. Yeah,

Joe Hannan  07:09
Yeah, Luke Funk, who’s our Iowa Fruit and Vegetable Growers Association President, talking to him not too long ago. And he said, Yeah, I come in from work for the day. And I have my pen and I have my notebooks sitting next to my lazy boy. And I’m sitting in the couch at night. And I sit there and scribble down my notes. And you know what occurred to me the other day, like that’s a really good way to handle it.
Yeah!

After being on the farm all day after being on the computer all day for my day job. That's just a nice time away from everything so

Yeah, I agree.

That's where a lot of my SOP drafts are at least anyway.

Mhmm.

Any other tips? Dan, as we're developing SOPs that you want to give our listeners?

Yeah, so I already mentioned like putting these SOPs up where the action is make sure that they are easy to find, your one that’s for mixing sanitizer right at the mixing station. But I want to make one other point about that, that if you’re writing out that there are certain supplies needed, like for the mixing station, if gloves are on there, if a certain measurement, like a teaspoon or a half teaspoon or a tablespoon is needed, make sure that those things are always stocked right there with those SOPs, make sure that you’re providing those for your workers there. Otherwise, they’re going to try to estimate with something else or it’s or they’re going to just splash it in there and it’s not going to be done right. Moving on to another advice about actually making an SOP though, is, if a picture can be used, I’d say use it. Those are often worth 1000 words, the book Lean Farm, I read that one and that guy, Ben Hartman, I believe is his name. He had a problem where his tool shed was always just in disarray. And he cleaned it up once. He took a picture of it. And then he printed that out full color and put that on the wall of his tool shed, and boom,
there's what it's supposed to look like. And magically, his workers started putting things back that way, because they just didn't know where things were supposed to go before. And there's a certain way that it all Tetris-ed together on that wall in his tool shed and that worked out for him. So if you can use pictures, especially if you're on a farm, where you have workers who speak different languages, that is one way to make a universal.

Joe Hannan  09:16
I like that tip. Yeah, if you have an SOP that's 1000 words. Maybe you have multiple SOP pages there, or maybe it's a way overly too complicated.

Dan Fillius  09:24
Yes.

Joe Hannan  09:25
My thoughts, my tips, as far as putting one together, I always sit down and start walking through the process in my head and writing it as I go. Then I actually always walk out to the field and actually do it. And again, I like your suggestions, make sure that the items are there in stock, I think I'll even add like a ‘This is the Items That are Needed for this SOP’ then I always turn around I give it to my wife, Marilee, and I asked her to do it, because ultimately on our place, if I'm writing an SOP, it's for her to do and vice versa. So you know, it's a good verification check to make sure that it's easily understood, it's clear and if there are any changes that need to be made that point. So yeah, that feel free to look at it and or have somebody else do it.

Dan Fillius  10:08
I agree.

Joe Hannan  10:09
So, Dan, let's move on. And let's talk about worker training. Right now I'm seeing a lot of comments and other things about folks, farms, picking up some temporary employees, especially those that may be displaced from the service industry and things. Do they need to be trained when they come out to your farm to do work, maybe suggestions on baseline trainings that they should receive when they come out to work on your farm?
Dan Fillius 10:34

Yeah, they definitely do need to be trained. And so the baseline things from a physical point of view, they need to be trained on what they're doing, you don't if they're not going to be harvesting, or working in the warehouse, you don't need to train them on that stuff, necessarily. You just need to train them on the things that they're going to be doing. So talk with them about, everyone needs to know where the bathroom is how to relieve themselves, where to wash their hands afterwards. That's a big one. Additionally, it's often assumed that people know how to wash their hands. And that info is more commonly found in the world today than it was a month ago. Or maybe I should say three months ago. But going over how to wash their hands, well, how to dry their hands, are they drying it on a towel or a paper towel or their shirt, the sleeves, the right thing to do is single use towels. And if you are sharing a towel, let's say you're used to working by yourself and your bathroom facility is in your house. And you're used to just dry it on the bath towel that's hanging there on the towel rod. First of all, that is a no no under FISMA, single use towels are required because pathogens can live in that wet terry cloth environment for some time as it stays wet. Either paper towels, that's what a lot of people are finding the easiest or if one is morally against the throwing out of all the paper, then you could have a tall stack of single use washcloths that then go on a hamper to be laundered for the next time. That information is something that even though it seems like it's a safe assumption that people should know how to do it that should be included in your worker training program. And aside from that, I'd say just what are your food safety practices for these folks, even if it's just somebody who is there for one day and doing work with food that is covered by FISMA. That needs to be gone over on that day. That we see this a lot. You know, it's similar to the situation where a say a CSA farm has volunteer and folks are worker shares come out from the shareholders. And do that work like are they a worker? Do I need to train them? Yes, is the answer there, they're touching the produce that people are eating. They're sometimes the last contact point before it goes into a person's mouth or touches the cutting board and kitchen of the consumer, that person is likely to put something on that crop that is going to be eaten subsequently by the next person. So training for maintaining food safety is good.

Joe Hannan 12:56

The other two training ones I think I would also add there is do you have pets or other livestock on the farm and also provide training there to make sure that they're either not touching or working with them or that they're washing their hands after they touch.

Dan Fillius 13:10

Say you've got a person displaced from the service industry. They're at home and in for
work, but their kids are at home and their pets are at home. And either they want to bring their dog out to the farm and let it run loose while they’re working. Or they don’t have childcare at this point. And so they bring their kids out with them. So talking with them about where their kids need to be and training those kids about the same things is important. And the pets got to stay home.

Joe Hannan 13:32
Yes, I agree.

Dan Fillius 13:33
Any poop on our fields needs to be treated as poop and as a contaminant for our produce. And it’s very difficult to control those pets.

Joe Hannan 13:41
Yeah, I agree. Leave the pets at home. And it’s tough situation now with the kids at home, you got to find some way to take care of them if you’re going out. The other one that I think is really important right now is making sure that you’re communicating if you are sick, stay at home and don’t go into work. And then you know, we normally think when we talk produce safety, we’re normally talking the human-borne pathogens, but we’re also now talking if you’re sick with symptoms from the Coronavirus, again, making sure that you’re staying at home and staying away from the farm.

Dan Fillius 14:09
Yes, agreed.

Joe Hannan 14:10
So, Dan training is tougher or seems like a tough concept to do if you haven’t been doing it. I think you and I do enough training that we don’t think too much about it. But are there any resources that I can use or that farms can use to help train their employees?

Dan Fillius 14:25
So NCR Worker Training Publication is still in the process of being finalized. I’m excited about that. Because once we get that slide set together, people are just gonna be able to
plug and play. Each slide that is applicable to a certain situation on a farm can be just selected out of there and used, and what a lot of people want is just to be able to take a training program off the shelf and just pop it in the DVD player and have that be good enough for their workers. But the reality is that no DVD is going to be able to cover all the idiosyncrasies of your farm and so there needs to be some customization in any training program. So having the slide set that we're putting out, that will have some information that you can either trim out or flesh out with notes that you can write in the PowerPoint slide, I think is going to be good. So in addition to that, I do know that the the Produce Safety Alliance made the slides for the Produce Safety Alliance Grower Training Course, those are available to the public, not for publication, but you can download them and use those same slides and information for your worker training program, if you want. And there's a lot of good charts in there that if you saw something in that Grower Training Course that you think would be good for your workers to see, such as the section about bacteria and bacterial growth over time, I think that's a good one or the infiltration of water into a melon, you know, rather than redoing that experiment in front of your workers, just cutting that slide out and including it in there. I think that that sort of customization is good, you can sit down for half an hour and select the ones you like out of there, and then just have that ready to go for your workers.

Joe Hannan 16:00
Of course. Dan, does worker training has to be a sit down PowerPoint?

Dan Fillius 16:04
No, gosh, no, it could be could be a stand up, it could you could go over 15 minutes, you know, of everything that's there, it is one of the required things for FISMA that your workers are trained, and that you're keeping track of that thing, if you're covered farm, I should say, but doesn't have to be anything big, and it could be piecemeal, also, you know, training for the things that they're needing to do, and then refreshers, or updates to it throughout the year and just keep those records of who got trained and when, when they got trained and what they got trained on throughout that. And I will say that the Penn State has put out this worker training flip chart. That's a paper copy for plain growers like Amish and Mennonite growers. It's got pictures of situations on farms using like horses and carts and things like that. But that's not to say that a non-plain grower, somebody using tractors and other technology like that. Those folks can use that too. It's a really good flip chart. And we've got some of those copies that we can maybe loan out or you can you can find it on the Penn State Extension store. I think it's 25 bucks to buy one of those things.
Joe Hannan  17:11
Yes, it’s about $25 and ships in one to two days. Well, Dan, I think that covers a lot of great information about worker training, about SOPs, really like to thank you for coming on to the podcast today and having a quick chat and appreciate what you’re doing.

Dan Fillius  17:29
Thank you so much. I really appreciate the opportunity to come on here and I like what you’re doing on here to. Alright, well thank you Dan. Take care. You too. Have a good one, stay healthy.

17:37
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