

## Field Day Podcast Ep. 15 Dr. Leah Dorman

**Jordan Hoewischer** Welcome to Episode 15 of the Field Day podcast brought to you by the Ohio Farm Bureau Federation. My name is Jordan Hoewischer, director of water quality and research for the Ohio Farm Bureau. Today we're going to go into the animal world, go to the veterinarian world and talking to Dr. Leah Dorman from Phibro Animal Health. So we kind of take a different direction from water quality and nutrient management and manure and anything else we've talked about, and so have a good talk with Dr. Dorman who happened to be the person who hired me on at Farm Bureau. So I think you'll see that this is a little bit longer of a podcast because we have a little bit more of a personal connection, and I hope you get some information about kind of the status that is the veterinary world.

Enjoy.

All right, we'll get started here. So tell me who you are. Where do you come from? Where you been... all the good stuff.

**Dr. Leah Dorman** I'm Dr. Leah Dorman. And where did I come from? I came from Farm Bureau most recently. No, I'm from northwest Ohio. But I live in central Ohio and I work for Phibro Animal Health, and I do communications of all things even though I'm a veterinarian, so I do a lot of science communications both internally but also with external audiences especially consumers. And my title is Director of Food Integrity and Consumer Engagement.

**Jordan Hoewischer** That doesn't sound like a corporate title at all. I mean coming from someone who is a trained veterinarian. So what's Phibro Animal Health...gimme like the rundown of what that group does.

**Dr. Leah Dorman** Sure. Phibro is a global animal health company. We do a variety of different things. We're probably most well-known for nutritional specialty products and minerals, so we do a lot of feed additives many of which are like I say the minerals.

**Dr. Leah Dorman** So making sure that animals have that balance of vitamins and minerals. But then in the premix side but then we also do nutritional specialty products and those are natural products that either help support gut health or support the immune system. They do a variety of different things so that's kind of the the nonmedicated side, and then we also do medicated feed additives. So those medications get added to feed for livestock. We also do vaccines mainly autogenous vaccines here in the United States but globally we also have commercial vaccines.

**Jordan Hoewischer** Quick quick glossary What is an autogenous vaccine. I obviously know it and I can spell it and use in a sentence but like what, well I mean it's for the audience.

**Dr. Leah Dorman** An autogenous vaccine is when your veterinarian comes to the farm they take samples of what's going on, right. They're gonna take samples that get sent to our lab. We culture it up we grow it. We look at it we look at kind of that DNA fingerprint decide what are the best what are the best samples what are the best bacteria to use. And it may be a combination of several bacteria could be viruses as well depending on what situation we're talking about.

**Dr. Leah Dorman** And then we make a vaccine that is specific for them that farm to that farm and it actually can only be used on that farm with some additional paperwork if there are kind of a situation where you know there are other farms in that area at risk. If you know, the state veterinarian again approves as well. There can be some paperwork done that it can be shared with some other adjacent farms too that are connected.

**Jordan Hoewischer** Is that a way to appease regulation essentially because usually stuff goes through a legal system or is it something different.

No. These are regulated as well and that's really in part why it only goes to that specific farm. That farm.

**Jordan Hoewischer** Well yeah I mean got and as we push more and more and we'll get into that as you push more more into you know not broad applying you know medicines I'm sure it's nice to have that specific prescription for that specific strain or whatever.

**Dr. Leah Dorman** Absolutely it's just another tool that we can use to keep animals healthy. So those are kind of our main buckets is medicated feed additives, vaccines, nutritional specialty products and and mineral nutrition. So we really only we really focus on the food animal world. So our main species that we do in the U.S. and globally is poultry, swine, dairy and beef cattle and aquaculture.

**Jordan Hoewischer** Aquaculture we'll get into that. So. So as far as the communications role you know what are the what are the main things that you know you're tasked with in terms of getting the talking points of the messages out of your of your company.

**Dr. Leah Dorman** Just say just say Jordan just say Leah, What the heck do you do?

**Jordan Hoewischer** Pretty much. So when you're flying and you're flying all over the world and they see somebody come in with like some bedazzled like country shirt on and some boots bedazzled shirt. I definitely have some pretty wild, some pink boots.

**Jordan Hoewischer** I mean like I don't know the rodeo was going to Phoenix. So what do they say to you like what do you do. What's your what's your pitch?

**Dr. Leah Dorman** Yeah. Yeah. So a couple of things One if I feel like talking because you know sometimes you get somebody who doesn't want to talk or sometimes I just don't want to talk, but you know if I feel like talking there's times when literally I'll sit down and I'll look at my watch and go hey if things run on time I'm going to you know I'll be home in time to feed livestock with my family.

And it's so funny to see looks on their faces especially if I'm like in a business suit they'll look at me like why. You have livestock you know. You know what do you have? And then I start to tell them Hey we raise cattle and some meat goats and I'm a veterinarian, too. And they're like Oh really.

**Dr. Leah Dorman** Now what do you suppose the first thing they begin to tell me.

**Jordan Hoewischer** Something about their dietary choices. They're like you know like I'm I'm I do non-GMO.

**Dr. Leah Dorman** No not first. First, when they hear I'm a veterinarian because they don't know that really I focus on more the food animal the agricultural side and they don't really know that I work more on the food side.

**Dr. Leah Dorman** So they start talking I get every cat and dog story known to mankind which can be really fun and interesting. I'm I'm okay with that except I haven't practiced companion animal medicine other than on my own and I you know on some family and friends for a really really long time and so I get every cat dog story known to mankind. And so I've decided the next time somebody asks me what I do rather than say I'm a veterinarian I'm gonna say I'm a proctologist.

**Jordan Hoewischer** Yeah. Because there's not a lot of follow-ups from them.

**Dr. Leah Dorman** Well I'm hoping but my fear is that that that I will hear stories that I really don't want to. But then my second issue is hey would you look at this.

**Jordan Hoewischer** I don't know there's enough room on the plane for them to not get the flashlight out of the miner's helmet or whatever they have to wear to do that.

**Dr. Leah Dorman** No but seriously Jordan I do after they kind of get a feel for what I do and because I do both internal communications for Phibro Animal Health but I also do external communications, so I do I work a lot with the organizations where member members of so whether it's National Chicken Council, National Pork Board you know those kinds of groups you know the dairy groups et cetera.

**Dr. Leah Dorman** I also communicate directly with consumers. And so you can you can check that out at [explore.animalhealth.org](http://explore.animalhealth.org). So I'm going to repeat that. That's my one plug [explore.animalhealth.org](http://explore.animalhealth.org). Or follow me on Ask Dr. Dorman. And that's really the consumer outreach just to answer people's questions about food and agriculture because a lot of times just like on the plane they don't think of a farmer wearing a business suit. And so they often ask questions about what we do or the food that they eat.

**Dr. Leah Dorman** The most common question that I get usually and especially if it's another lady that's a mom like me.

I also hear I hear questions about antibiotics. That's usually the first one when they hear I'm a veterinarian. I raise cattle and goats and then the second one is hormones. They asked me about hormones. So those are kind of my my two but the first two quick questions they typically ask.

**Jordan Hoewischer** Yeah. So let's go down that road. So antibiotics obviously have taken a life of their own over the last 10 or 15 years you have you know resistance stories you have overuse stories or you have just maybe misinformation about what's going on. I think it's something it's always you know close to my heart in terms of animal care and stuff. I grew up on a pig farm. And so those two topics are always the ones I probably get into the most arguments besides maybe GMOs when I'm talking to my friends that are you know farm kids. So what's the what give me that just a lay of the land on the current status of antibiotic use and if you're calling on food animals let's call them food.

**Dr. Leah Dorman** Food is food animals are animal livestock you know whatever you want to call them. But first of all, I'm going to give you a hard time Jordan. Stop having arguments. Well it's not an argument. Yeah.

**Dr. Leah Dorman** Have a nice conversation and it's ok to agree to disagree but you can have a nice conversation without having to try and as I always say, punch him in the throat with science.

**Jordan Hoewischer** It may come later in the evening. But yes, good conversation seem persuasive. Conversations are had.

**Dr. Leah Dorman** And it doesn't even have to be persuasive you know to me the whole goal is just have a nice conversation because quite frankly the people asking probably have never met a farmer, never met somebody who's involved on the production side of food: meat milk and eggs mainly. And so what a wonderful opportunity. What a wonderful opportunity to just answer the question simply, openly, honestly that that they have. So that's going to be my my pointer for you. Don't have an argument. Don't get defensive and I know it's hard. I do. You know there's time.

**Jordan Hoewischer** That's just general like advice for my whole life. There's not just a specific conversation just don't get defensive. Don't be so sensitive.

**Dr. Leah Dorman** And I'll tell you before I get to the antibiotics question you know I fell in that same role and honestly, Farm Bureau really helped train me.

**Dr. Leah Dorman** I work really closely and I did even here at Farm Bureau with Center for Food Integrity because they really looked at what builds trust especially with the consumer. What builds trust? And it's not facts and science. It's not skills and ability. It's about shared values. So what values you know if they're saying Oh my gosh I can't believe that you feed all these livestock. You just pour these antibiotics to them. You know what. What's their fear? What's their fear What is their value? And there's a good chance they probably value food safety that they want to make sure that what they're feeding their family is safe. That it's nutritional. It could mean that maybe they're concerned about animal care. You know do you have that many sick animals you know kind of attitude and I understand they don't they don't know and they've certainly heard lots of negative stuff about agriculture out there. So I always take every conversation as an opportunity to make a really positive impression for agriculture in general.

**Dr. Leah Dorman** So that's my soapbox.

**Jordan Hoewischer** That's great because in the end the goal is the same for both sides right. They just want to consume. They want to produce and consume you know healthy, safe food essentially. So it's just a matter of meeting and that to that point that gets that same look.

**Dr. Leah Dorman** It is they want to be comfortable. They want to know that it's OK to eat what they're eating. And so that's where we can just give them ability we can give them a little more information you know but lead with those values Lead with hey you know I get it. You know you're concerned about food safety. Gosh, we are too.

**Dr. Leah Dorman** As a matter of fact that's why we you know whatever the sentence is and in the case of antibiotics you know there are several things in place to be sure that even when animals do need to be treated with antibiotics. There are several things in place to make sure that that food is still safe for you to feed feed your family.

**Jordan Hoewischer** Yeah. So let's go down the you know pathway of like what's the most general time antibiotics are applied and then what are those parameters after there is an application of antibiotics.

**Dr. Leah Dorman** Great question and that that is one of the topics that I think amazes consumers the most. You know we're really using antibiotics for prevention, control and then also treatment of disease and so prevention obviously is when those animals are at high risk for disease and the factors are right where they're gonna be at high risk. And the veterinarian says Hey, because they're at such high risk at this time, we need to give them some antibiotics even before anybody in the group, herd flock is showing signs of disease. That's prevention. Prophylaxis is the fancy word for it. And then there's control and control is also called Medicalaxis and control is really about. All right, you've got maybe one or two or you've got a few showing some early signs of disease. Gosh they're in this group. There's a really high likelihood those animals are gonna widen it...affect the new ones nearby. And so rather than allow that to rip through the entire herd whether it's three animals or you know whether it's 3 million you know you want to protect the rest of those herd the rest of that herd or flock in close proximity and so we can administer antibiotics for control. And again we're talking about bacterial diseases here when we're talking about antibiotics. And then the third way is treatment. So those animals are sick. And honestly if animals are sick it's our role both as a veterinarian but also as a farmer to go ahead and treat that animal in order to prevent the suffering and the potential pain that comes along with that disease. It's just simply the right thing to do.

**Jordan Hoewischer** Yeah. And so say if an animal is treated...say I have a chick a chicken, which I'd never would, but I have a chicken and that chicken. A vet has administered some antibiotics and say that's a chicken that is destined for meat production system. What goes into place between the vet giving that chicken antibiotics to when it could potentially go into the food system.

**Dr. Leah Dorman** Ok. I'm going to start. I'm going to backup even just a little bit further than that and I like that question because that's an important piece to bring out. So the first thing that that we do is farmers and veterinarians are required by law to follow something called the Withdrawal Time. So as we give that animal medication, there is a time listed on that medication that says this animal needs to be kept out of the food system or the animal's product you know milk, eggs whatever says they have to stay out of the food system for X amount of time. Sometimes that's days if it's milk. Sometimes it's hours. It just depends on what the drug is and what the species is. But that is listed right on the label of that medication. So we are required to follow that one. So it's the time which for all time is the time that animal stays out of the food system after we've ended treating that animal with the antibiotics until they can go into that food system. So that's the first thing. But backing up just a little further as the drug sponsor. And obviously, Phibro Animal Health we do make some some antibiotics. We make some other medicated feed additives and so we have to put a withdrawal on those. It could be zero depending on the medication that just simply doesn't get into the meat, milk or eggs. Other things again can be up to days long. So part of what we have to do when we submit that medication for approval to the U.S. Food and Drug Administration, part of that is those trials to say OK. Not only is this drug safe and effective for the animal at such and such a dose and all the different species, we provide all those studies all that information. Then we also have to say Oh and by the way, here's all the studies and trials that say this is when that medication is out of this animal's system and this food is safe to eat.

**Jordan Hoewischer** Yeah and that's probably even still. I mean I have a little bit of a research background on plants but I would assume there still are even some safety nets involved with that number, right, and they usually don't...I would assume they don't put it up to the very minute. You know that maybe it's not (I'm not going to speak for your company) but I know for like for fertilizer trials. You know there's still a safety range there that's pretty comfortable in case there is, you know, a close call in terms of how close it comes to that date.

**Dr. Leah Dorman** So yeah absolutely and then there's a check and balance on the other side. And so that the check and balance part is that the food companies or the farm itself is doing testing many times but then USDA when we're talking about meat is also in the plant doing routine testing as that sort of check and balance to be sure that there are no unsafe residues in our meat, milk and eggs.

**Jordan Hoewischer** Yes. So when people make a statement in terms of all I don't want something that was raised with antibiotics. If the farmer and the meat producer whoever is following the law, I mean it's not just a guideline, it's a law. A federal law I think. That means that there's there's not a way of accessing whatever antibiotics had been put into that animal through its lifetime so I think that's just an interesting point even though our audience is primarily you know ag related. I think it's a good point to stress that there are guidelines in place if there is something that's been administered to an animal.

**Dr. Leah Dorman** Absolutely and not only guidelines but requirements. And there's there's confusion. There's confusion swirling no doubt about this. And in part. It's in part our own fault right. Because we don't necessarily always communicate very well or in a way that really resonates with the consumer. But I think the second issue is that our food labeling the way we label food even in the grocery store has confused consumers and I know I've told this story many times, but I've had I had a conversation and it was a Farm Bureau event and I was sitting there with another farmer and we're sitting around the table, we're having lunch and the topic of the antibiotics came up and there was just a consumer sitting there and we were kind of quote "practicing our newfound skills" after training right. And this lady again...No farming background, no connection to agriculture. I began to ask him questions about antibiotics and one of the other farmers who also raises a fair amount of cattle and hogs looked at her and said, "Well what do you think about farmers using antibiotics?"

**Dr. Leah Dorman** And she said, "Well I'm okay with it. I'm okay. And I understand animals get sick. You need to treat them. You know I'm I'm okay with it, but I guess I'm okay with antibiotics being in my food." And yeah, I'm sorry I saw your face (Jordan's face.) And so I had that kind of brief internal seizure and so I said to her and I said Oh I understand that you're probably concerned about making sure that the food you feed your family is safe. I completely get that. You know we're Actually as a veterinarian and a farmer I raise some of my own food and so I want you to understand there are several safeguards in place to be sure that after an animal is treated with the antibiotics that food is safe for you and your family to eat and I explain withdrawal time briefly and I explain the testing kind of check and balance system and and she said Oh I had no idea that was happening and and then I asked her I said Help me understand because I'm I'm a little surprised by your response. Help me understand why you thought that. And she almost looked embarrassed to me and she dropped her head a little bit and said Well when I go to the grocery store you know I'm a middle-income family. And I can't always afford to buy the antibiotic free meat so I buy the meat that has the antibiotics in it.

**Jordan Hoewischer** Because it's implied right when they say Raised without antibiotics it just means yeah they maybe weren't treated with antibiotics doesn't necessarily mean it's it's you know free or not in or what out right. It's kind of a wording.

**Dr. Leah Dorman** That was totally my Aha moment. Yeah. Because then now I understood why she thought there was the antibiotics and everything else and then she had this kind of mom guilt complex that I feel bad because I can't afford to feed my kids this label like that. And I said Oh I said now I get it. Thank you for sharing that. It totally was an Aha moment for me. And I said I hope you now understand that you pick whichever one you want. Both are safe to feed your family. Feel comfortable and confident in that. Yeah. You know I had no suggestion. It's not that one is better than the other. You feed the one that is most comfortable for you and your family for whatever whatever things you value.

**Jordan Hoewischer** Yeah. And that's ultimately I mean not to get to pie in the sky about it but it's like that's ultimately a testament to our whole system right in the United States where we have inspectors and we have checks and balances in place. Obviously we like to not be not go off the rails on regulation one side or the other. But it's also nice to know like hey we we have the food security of having the backing of a USDA inspector in every you know plant and all that stuff to ensure that you can make those statements and ensure that when that lady makes that choice that they're getting what is you know what is promised to them.

**Dr. Leah Dorman** Yes. And I agree and I agree entirely. We do have one of the safest food supplies in the world and we somewhat take that for granted and now that I've been in several other countries around the world and seen some of the open sewer systems and the open restaurants and you know I've learned to eat deep fried foods in those locations just to be a little safe. Yeah I'm I'm not a germophobe.

**Jordan Hoewischer** Just prefer high temperatures.

**Dr. Leah Dorman** Yeah yeah there are some places that are you know not so pretty and not so sanitary. Yeah. And so we've we've got it pretty good here. Yeah there is food safety but I think again that's just something that we can help people understand a little bit more and be more comfortable and be more confident in the food that they're purchasing and and feeding to their families.

**Jordan Hoewischer** Yes speaking of that the other thing that you had mentioned is hormones. So the H word for some people were like...my kids are consuming hormones and they're you know milk is this and that. So I just give me for my sanity you just like give me the rundown on like what's the status of hormones in food production.

**Dr. Leah Dorman** So it always cracks me up when when they find out I raise cattle and they find out that I have three girls and the first thing they ask, you can imagine is, oh my gosh do you use hormones? Do use hormones.

**Jordan Hoewischer** But I mean I can't control my kids I try. (Laughter)

**Dr. Leah Dorman** I can't stop them. (Laughter) No. Do use hormones when you're raising your cattle and my answer is Yeah I do and they're like wait a minute but you have daughters. Why do you do that? You know. Aren't you worried about early maturity?

**Dr. Leah Dorman** And I'm like No really I'm I'm not and it's not really an issue. I said you know I said if you really think about it I said first of all I'm using the hormone and understand that it's you know it's an estrogen-like compound it's Estradiol. So and it comes in this little silicone implants that looks almost like the top of a pencil eraser and you basically put that in behind their ear kind of between the skin and the cartilage and it just stays there and then it slowly releases and like I say it's an estrogen like compound. I'm talking about the cow I'm not talking about my kids. Cows.

**Dr. Leah Dorman** And so then I just explain kind of you know the process, what it is. And and I said the reason I do that though is so that I can use less resources in raising my cattle and because I know that by doing that I use less water and less feed which means less acreage, less carbon footprint to raise that same animal to get it ready for market.

**Dr. Leah Dorman** So I that's why I do it is to conserve resources. But as far as the concern, you know I understand you know you're concerned about making sure that the food is safe. A lot of times I'll say Do you eat cabbage and they'll go yes. I like cabbage or no and then I'll pick another one. Do you eat cabbage? Yeah. I said you know there's way more of that same type of hormone in a serving of cabbage then there is a hormone implanted.

**Dr. Leah Dorman** Yeah. And then they're just like what? And then I'm like yeah, hormones are natural and there's really not that much more of that similar type hormone in beef that was raised with that hormone. But as far as you know girls maturing earlier coming into puberty earlier. It's true. They do and they have you know, now they they're they come in maturity earlier than they did 50 years ago. That's true. I suspect that will continue to be the trend and some of that is because of weight. Yeah. And I said you know let's face it we're heavier today than we were 50 years ago and quite honestly the body knows when it has the ability to support a pregnancy. And so until that body has enough weight that it can support a pregnancy it will not turn that on. Yeah. And so as girls are heavier at a younger age that gets turned on earlier. And so I said it's no different in cows. Honestly if you have a really thin cow or another animal, that animal many times will not become pregnant. Why? Because their body knows that it doesn't have the reserves to support a pregnancy. And so it just simply doesn't come into heat. It doesn't cycle.

**Jordan Hoewischer** Yeah I mean I'm sure like if you're talking to a layperson they're like I just asked about hormones in cows.

**Dr. Leah Dorman** No a lot of times they bring up Well aren't you worried about you know early puberty in your kids? And I'm like great question. No, but here's why.

**Jordan Hoewischer** Yeah. So what about what about hormones in milk which is probably the more prevalent one I think in society or was at some point or the one that I think it's because you know kids ingest you know bovine milk and like there's there. I think that's always the one that increases the attention on things. What about hormones in the milk supply in general.

**Dr. Leah Dorman** Well you know the main the main hormone we were using was you know a lot different. The rBST (bovine somatotropin) is the big long word and really not as much use of that as as there was. The sad part is is even that milk which is labeled as rBST free if you read the fine print down at the bottom it says hey there's BST, the non-manmade or the natural BST that a cow has naturally is there anyway. Yeah. And quite honestly they can't tell the difference in lab tests. And so there is like a little disclaimer in



the really teeny tiny print. If it if it has a BST free label and I hate I hate that label. You know anything that says free I'm like can we say raised without BST because technically just like hormone free. Sorry, no. Plants and animals cannot live without hormones.

**Dr. Leah Dorman** You know No hormones added is fine or Raised without added hormones. Canada has it right when it comes to antibiotics. They use the phrase Raised without antibiotics which gives a much better picture of what it is then antibiotic free because ah yeah. All our meat is safe to eat.

**Jordan Hoewischer** Well I mean similar to me like being a more of a plant person. I get annoyed by the GMO free when there's not a GMO alternative. I understand if there is a GMO alternative crop. Fine. Like you're just raising awareness of something that doesn't have it in there, but when and when it's something that doesn't have an actual GMO alternative it really makes me mad.

**Dr. Leah Dorman** I had this exact conversation two days ago from my Uber driver. Yeah. And he's like. So what do you think about organic and or what. No he didn't ask about organic. He asked about GMOs and I said well we're grain farmers and so we use some GMOs. And I said mainly because, one it allows us to use less pesticides, it allows us to have some drought tolerance when you know the weather doesn't cooperate with us. But then it also helps prevent diseases that we don't have to try and kill or take care of other ways. And so that really has helped us a number of years and so if you explain it sort of like that, really simply, of what those benefits are. And he's like oh GMOs concern me and you know a lot of times I'll ask questions as to why but I remember saying he's like well I see a lot of these non GMO labels and I said and I laughed. I did. I laughed. I couldn't help it. And I said Yeah there's a lot of non GMO labels I said but did you know that there's only 10. Yeah there's only 10 plants that are approved as as a GMO plant and available commercially and he's like 10? That's it? Yeah. And I go Yeah. So when you see that tomato that has a non GMO label I said I always laugh. If you want to pay extra for that. You go. Yeah but there aren't any tomatoes that are GMO.

**Jordan Hoewischer** Yeah or they're ones that have been modified and they're growing with like they're hybrids. Yeah.

**Jordan Hoewischer** Or they're growing with like the root stem of a potato plant...They actually do funky stuff it's like you're cool with like grafts on you know Apple trees and things like that but you're not you know so whatever.

**Dr. Leah Dorman** I know it makes me digress. I did. It did make me laugh.

**Jordan Hoewischer** But they are similar. They are like you know cousins in terms of just misinformation or not enough information about what the reality is and I think the hormone one specifically is one that needs to be updated, you know, because I think everyone just says oh hormones and maybe it's transferred a little bit to antibiotics but I think people are in that same rut of 15-20 years ago and I just don't know if people understand what the current situation is with animal production.

**Dr. Leah Dorman** I think that's true. And I think science is scary for a lot of people which is why we shouldn't answer their questions with science. Believe me that's like you know pull the knife out of my heart OK. Because I like science. I'm sort of a nerd. Don't comment Jordan just keep that to yourself. So that's hard not to answer with with science but we can't. We have to lead with those values. Now once we've made the connection with the

consumer at that values level, where can we where can we agree. Where can we agree. We can agree on food safety. We can probably agree on animal care. We can probably agree on we want to be good to the environment, but focus on where you can agree and then lots of times you can sort of follow that up with the science, but we can't lead with it because if they don't trust us, they don't trust our science.

**Jordan Hoewischer** Yeah. Switching gears a little bit. So we talk about you know veterinarians and their roles in the system. I think it's under under known or under utilized. I don't even know if utilize is the right word but I think it doesn't get enough spotlight on a vet's role and just whole food safety and food supply in the United States and around the world. Just give us a glimpse of what just the vet is involved with in terms of being a part of the safety of our food.

**Dr. Leah Dorman** A number of different ways. So I'm like you can see me cataloging right now, the people listening can't, but so I think a number of different ways. You know and some of those we talked about you know just making sure that medications et cetera that we're using on the farm let's make sure those withdrawal times are are being held to. So I think that's certainly one way. But just simply keeping animals healthy on the farm and helping farmers do that I think is really key and having a healthy food supply as well. So and you know that comes it's not just antibiotics. Right. That's not even necessarily the first thing we grab. There are so many other tools in the toolbox and and just to name a few. You know we want to make sure that that the animals have appropriate housing and they have good ventilation. Sanitation is good. That biosecurity plans are in place so disease isn't coming in. We want to be sure they've got a vaccination program so that if disease does come in there's some protection there. And nutrition is certainly important as well to make sure they've got what they need and a balanced diet for their stage and of production as well as their age. So all of those things are are really, really important and I think that's one of the roles is helping farmers do all of those things and have a plan. So that's more on the farm. But then after that certainly there is roles for veterinarians and industry you know research, education, communication for companies.

**Dr. Leah Dorman** So I have sort of an odd job but a great one nonetheless. And then I think the other way is especially on the food safety side is it seems like the USDA constantly is looking for veterinarians to fill their public health veterinarian roles. So it's the folks that are you know working in those meat plants or I suppose other plants as well. But the meat plants especially making sure that there aren't issues of public health or food safety. So that's sort of their role in the plant is monitoring and what's going on at that plant from a from a food safety perspective.

**Jordan Hoewischer** Yes. So obviously some of that that question was meant to be a little bit redundant just to catalog all the things that we need you know. I say large animal vets but you say you know food animal or whatever but you know we've heard from you know the college at Ohio State and in other places that we just have an extreme shortage at least regionally and a shortage of animal vets for food production and that whole system you just explained so I just want to kind of highlight that and maybe you can talk a little bit more about you know why that is you know, why do we have such a shortage? Why aren't people going into you know this field? I mean I I know some of the answers we know it's such a tough industry. I have family members that have been vets and it's such a tough industry to just you know go to some of these farms and do what they need to do but maybe you can expand on that a little bit.

**Dr. Leah Dorman** Yeah I think there's I think there's several reasons. And one one is being able to cover a large area. Now think about it. You know one if I am a companion animal vet I'm in the office. I'm not exposed to. You know it's that comfort level right. So I have a you know air conditioning this summer heated in the winter and if I'm a food animal or a large animal vet you know I'm out there in the mud, the blood in the I was gonna say beer but that seems wrong.

**Dr. Leah Dorman** I think that's a country song. Mud, blood and the beer. So I think that some of it. It's hard work. I mean it's hard work.

**Jordan Hoewischer** Yeah it's hard work like boxing out heifers and like trying to like figure out how to like blood test this and that while you're in all that stuff.

**Dr. Leah Dorman** I mean so yeah I have I have taken blood from a herd of dairy cows and dairy cows are a little easier to work with than you know some of the other animals that aren't quite handled as often as dairy cattle and I pull in blood and it was 20 below and I my toes have never hurt so bad in all of my life.

**Dr. Leah Dorman** My hands swelled up. Yeah I thought I was going to die. So it was hard. It's hard on you physically even. And so I think that's probably a bit of a deterrent recognizing that especially and now that I'm getting older. Recognizing that you know how I'm going to have to have shoulder surgery or whatever just from you know palpating too many cows et cetera. So and getting kicked and those kinds of things. You know it's it's a bit more dangerous.

**Jordan Hoewischer** Yeah. And then you have obviously you know the the type of money it takes to get through a vet school after you know after undergrad and all that stuff. I mean you have such a hefty student debt bill and then we're asking them to go you know be a large animal vet that maybe doesn't have that payback as when you have people who have companion animals coming into your centralized office that maybe have a little bit more income.

**Dr. Leah Dorman** You can have an appointment every 15 minutes where if I have to drive two hours to one call. Yeah then somebody is going to have to pay for that. And that's gonna be the farmer and so it's it's hard for the farmer to be able to afford that type of service.

**Dr. Leah Dorman** And it's hard for the veterinarian to spend two hours of their day just driving to that particular farm and so that's also hard to pencil out and make it work. And you know we do have a lot of veterinarians especially the larger farms that are on staff or oftentimes consult in multiple states. And there are some laws and rules about some of that as well. So I think that's another one of the issues and for me and I'm just looking back at kind of my food animal practice days you know it was tough because you know there were times people would call you for advice and I wanted to help everyone. And so I'd try and help them through or get them through the weekend. You know what I could because you know I have laws and rules I have to live by to maintain my license. I would get them by if I could without an emergency you know weekend trip charge and all those kinds of things. But then you know when it came time Monday morning to schedule that appointment, they'd call their quote "regular veterinarian" and so you know it was really hard to sorta make that pencil out again from that you know veterinary perspective.

**Dr. Leah Dorman** Yeah. And you know if you've you've got you know I've got seven goats. You know I've got seven does or so at home. And it's hard. It's not like I'm going to call you out for a monthly herd check. It's not like you have regular business from me. It's more of a shotgun approach especially with those smaller farms and and I know that's some of the challenge and FDA recognizes this as well and they did a series of listening sessions a few years ago and and one of the things that came out was especially for the smaller farms it becomes even more challenging because they don't have a veterinarian on staff or they don't have somebody who comes out like for a dairy farm. You know you typically have those routine herd checks.

**Dr. Leah Dorman** So that you're just on that veterinarian's schedule and obviously if you have things in between you or you have that veterinary client patient relationship but you don't have that. It's not like if somebody calls me up on Christmas Eve and has a problem I can't necessarily if I've never seen them before never been on their farm. I don't have the ability to just say hey stop by and pick up this medicine.

**Dr. Leah Dorman** I can't do that because legally I don't have that veterinary/client patient relationship. And so that makes it hard as well. Your heart wants to help them but you can't necessarily do it in that way because of the laws and we don't want to. And we also want to make sure it's safe for the animal you know. And eventually the food.

Yes. I don't know if that made sense. It does.

**Jordan Hoewischer** I just want to highlight it because I just want to highlight because I feel like you know I was an animal science minor at Ohio State. I saw a lot of people going through their animal science degree to potentially be vets. And honestly like you can tell the ones that were like hey I'm they're going going be companion animals. It was an overwhelming majority of those kids. So it's like it's just something a little closer to my heart because I just know how pivotal that role is in our food system.

**Dr. Leah Dorman** Well also think about the number of of students in college that you know less than 2 percent of us right in the U.S. are involved directly with agriculture. And when you're talking about animal agriculture that number is even smaller. So think about even the number of kids that have never been exposed to an animal that weighs more than they do. And so that's a little bit overwhelming Not for everyone. You know there are folks... I didn't grow up on a farm. I love agriculture. I've been around it all my life but didn't grow up on a farm. So I mean there is the possibility to you to you know to jump into agriculture but if it's not known to them you know that makes it a little bit harder and that's why I love the animal sciences program because they do get some exposure and kind of get to try some things...Hey, do I like pigs? Do I like sheep? Do I like poultry? It give them at least some exposure to something other than cats and dogs which is probably the main thing that they've been around. Now they're certainly food animal folks like yourself in that animal sciences program. And I think that's great. But I think we do need to you know kind of do some handholding and I think Ohio State is doing that with some of the folks that are interested in more of the large animal veterinary medicine because we do need more of those brilliant minds coming to replace old people like me.

**Jordan Hoewischer** When you see so much cool stuff like I mean even stuff we did on our pig farm like I was on like my uncle was a vet and I was literally a parrot on his shoulder watching like c sections and you know like you know even just like lancing stuff and you know all that stuff is so cool.

**Jordan Hoewischer** So speaking of that I don't know if if you are like this in your family but one of those things always intrigued me about having a vet in the family is like he was considered like the doctor of the family. So like stitches got taken out or maybe put in, super glued of things we may or may not have got amoxicillin you know from from certain non doctor prescribed areas.

**Jordan Hoewischer** Well I mean are you like are you like the country doctor in your family to? Like my uncle like. "I think your thumb is not broken. Let me pull on it." Yeah. Two days later it's still blue and my mom had to take me to the hospital. It's still broken. Thanks. Vet uncle is not a medical doctor.

**Dr. Leah Dorman** Why didn't he X-ray it? (laughter.)

**Jordan Hoewischer** Because he didn't because he pulled on it and said it was fine. That's what I'm saying. That's what I'm talking about.

**Dr. Leah Dorman** I do have to admit to X-raying my husband and I but I have some rules. The rule was and this is when I was still in companion animal practice. He had fallen and cracked his ankle on the ice. And I'm like come in at least X-ray it. Right. So I took a couple shots but before I before I X-rayed it, I looked him in the eye and I said Okay I have some rules. And he's like All right.

**Dr. Leah Dorman** I said there will be no biting, no kicking, no pooping and peeing on the table.

**Jordan Hoewischer** He he's like just scratch my belly. Did you take it and be like this has gonna have to come off like I have to take this.

**Dr. Leah Dorman** You know what. That is the joke with my kids whenever they got hurt. And if you ask them to this day what I'm going to say when they get hurt my answer is always Let's amputate. And then they'd always laugh and now they just roll their eyes. Yes they're they're older now. So you know what am I that country doctor. Maybe a little. I have a niece who's a nurse practitioner so you know it's really nice to be able to call her up on those kinds of things.

**Dr. Leah Dorman** I do have to admit that when I was in practice I had kind of a truly old country doctor for my M.D. for my family and so literally I would call him up and say Hey I got this going on or you know there were times I've yes I've done a urinalysis on myself. Is that too much information?

**Dr. Leah Dorman** It's no different than a dog. So I can see what's going on and I'd report it to my doctor and he's like Hey you got this on your shelf and I'm like Yeah. He goes take this dose. And so literally he would.

**Jordan Hoewischer** We're just talking off label medicine. It's no big deal. (laughter)

**Dr. Leah Dorman** No it was actually a human medication no different than if I would go to the pharmacy. It's the exact same thing and I'm like Yeah. We have that. He's like All right take this dose for this amount of time and if it doesn't get better come see me we'll culture it. I'm like cool.

**Jordan Hoewischer** Well we affectionately called the brown bottle of amoxicillin in our fridge goat medicine. So that was our affectionate name for ourself.

**Dr. Leah Dorman** OK. So I have one other funny story about that and that is OK. So I was singing in this community choir and I had this coolest solo ever. And two days before we're gonna do the performance and we'd been practicing for like two months... two days before I got strep throat or at least I think I have strep throat. I go to the doctor and normally I horse around with that right. That's probably a bad thing to say horse around anyway.

I do I horse around delay it right because I'm going to be fine I'll get better. But this was one of those times I'm like I'm going to get in. I'm so worried I'm not going to be able to do this really coolest solo ever thing. So I went into the doctor and they cultured you know they did that quick test right and said you have strep throat and he starts writing a prescription and I go What are you doing. He goes Well I'm writing you a prescription for for a penicillin derivative. I'm writing you this prescription. And I go Oh no no no no I don't want a prescription because I knew that if I took that I mean I'd had that before and it like takes you a while.

**Dr. Leah Dorman** Yeah. You know it takes it a while to work ...And so I said No no no no I want the injection.

**Jordan Hoewischer** You wanted him to get the needle out.

**Dr. Leah Dorman** I'm like No I want an injection and he gave me this horrified look. He's like well we don't we don't normally do that especially in adults and I said here's the deal. Yeah I said you're either gonna give it to me here which I would much prefer because man does it sting. I know why cows kick when you give it to 'em. Man does it sting. But I said two choices: You can either give it to me while I'm here much preferred or you can give me the dose and I'm going to go home and give it to myself. And he looks at me and he goes You're serious aren't you? and I go my dead dog serious. So you decide. I'd rather do it here and have you do it than me try and stick it in my rear end. And so they did it and the nurse was truly nervous.

**Dr. Leah Dorman** But yeah. I mean I was fine. I got to do my solo. Yeah.

**Jordan Hoewischer** That's great. I mean I guess I haven't. I mean I've had I'm really allergic to poison ivy and so I've had the same experience where I go in the doc the doctor and it's like I've had this its like. I've had plenty of shots. And so now I'm like I go to the doctor and say OK I have poison ivy on my face, I need the shot in the butt and the guy's like like I think when you request certain things they're more likely to not give it to you. Yeah probably so. So sometimes I do win and I get it because I just want to you know cut to the chase. So somebody my size I mean I'm 6'4", 280 and it's like yes that's what the male nurse wanted to do that morning was you know administer the administer the poison ivy shot.

**Dr. Leah Dorman** And I am not giving my height and weight.

**Jordan Hoewischer** I'm just trying to get I mean people don't know me. They didn't see that I have a big shadow. So we'll transition to that too.

**Jordan Hoewischer** We'll wrap up with what's the future of like the animal medical world or the medicinal world. So are we gonna get. Are we gonna move that slight really precise

prescriptions to like mobile units or like what is the future do you think of how we are administering antibiotics and other medications for us for our livestock.

**Dr. Leah Dorman** I think we're in a mode of continuous improvement. You know we're always trying to do a better job for our animals in lots of different ways and all the ways I talked about whether it's housing or whether it's nutrition we're getting so much better at as well. Even using some of these nutritional specialty products that help us reduce the need for other medications like antibiotics. Vaccinations we're getting better at those. You know all of those things I think are really really important. I don't foresee a world without antibiotics. And I think that's really important. Antibiotics are not bad. We want to use them responsibly. That is extraordinarily important that we're using them when we need them in the right circumstances. And and I just think that is really, really key because we want them to work both for humans and animals when we need them most. So we do need to continue to get better at diagnosis and and using these medications appropriately. So I think what I foresee in the future are several things I think we're going to continue to find more as I called nutritional specialty products. I think we're gonna see more things like that that do have, that do work. They efficacy.

**Dr. Leah Dorman** You know some people like to call it fru fru dust and and no there are actually some things that work out there. I think we're going to see more in in vaccines and vaccine technology. I think we're going to continue to see more on gene editing. I think that's a fascinating opportunity. And it's fascinating because we now are becoming to recognize the potential in disease prevention.

**Dr. Leah Dorman** You know if we can we can make pigs that are PRRS resistant by resistant PRRS sorry --porcine respiratory and reproductive syndrome. So it's a disease of pigs that is devastating both economically but also can be to the animal.

**Jordan Hoewischer** And it hangs around, right?

**Dr. Leah Dorman** It's a virus and yeah so it's one of those diseases that has some pretty big economic economic considerations for the entire pork industry. So if we can reduce the incidents of that disease by producing animals that are resistant with no medication no vaccination you know none of that. That's spectacular. I think that helps us and and obviously PRRS is a virus. But also remember that oftentimes viruses will immuno suppress. It will mess up the immune system and allow those secondary bacterial infections that an animal normally would fight off to to kind of creep in and then lots of times you kind of get a co-infection if you will. So it's those kinds of things that I really see coming.

**Dr. Leah Dorman** I think we're gonna see some additional tools in our toolbox but I think it's extraordinarily important that we maintain the use of antibiotics for prevention, control and treatment.

**Jordan Hoewischer** All right. Well I think that's all I got. Hopefully you know what everyone enjoyed our personal stories and know where we've had medicine administered.

**Dr. Leah Dorman** Did we share too much?

**Jordan Hoewischer** Maybe. But I appreciate your time.

**Dr. Leah Dorman** Hey thanks, Jordan.

**Jordan Hoewischer** And that was Dr. Leah Dorman with Phibro Animal Health. If you want to know more about what Dr. Dorman is talking about and some of the things that she's working on, please visit [exploreanimalhealth.org](https://exploreanimalhealth.org). If you have any questions for me or any topics you'd like to suggest, my email is [jhoewischer@ofbf.org](mailto:jhoewischer@ofbf.org). So just throw me an email and I'd be happy to talk to you and if you would please rate and subscribe to the podcast that really helps drive numbers for us and understand who's listening and where you're listening from and kind of what you think about the podcast so really appreciate it.

**Jordan Hoewischer** Thank you.