

Goat Pneumonia with Dr. Meredyth Jones

Dana Zook: [00:00:00] Welcome back to the extension experience podcast. I'm Dana Zook. This week we are back recording from the Oklahoma state college of veterinary medicine. . Dr. Meredith Jones is back with us to discuss pneumonia in small ruminants, which we term as goat pneumonia, which applies to sheep too.

So anyway, Dr. Jones is a veterinarian and associate professor at the college of vet med. Dr. Jones, thanks for taking the time out of your busy schedule. I know she's got a lot of, a lot of jobs here, so , since you've introduced yourself this last, go around, why don't you tell the audience a little bit about what you do here at the College of Vet Med, because you don't just teach and you don't just, you're not just a plain veterinarian, which, what is that? I don't know. Nobody's a plain veterinarian. Yeah, that's right. So tell us a little bit about what you do.

Dr. Meredyth Jones: Yeah, sure. I spend about, I am, I'm a specialist in food animals. So, that kind of helps clear up a little thing. So, I don't work on horses. I don't work on dogs and cats.

I stick with what we call food [00:01:00] and fiber animals. So I say anything that you eat or shear its hair off. That's what I do. So I spend about a little over 50 percent of my time working in our teaching hospital. So in the clinic, people bring us sick animals and we work on them here. And so I have residents to be specialists are training under me and then I also have students that are with me all the time.

And there, I do work like. The plain old veterinarian. I'm a plain old veterinarian just like everybody else's. No, that's totally fine. And so I work like the veterinarian in your community I just have lots of people around me sort of learning from that and then of course here at the university We do have some extra toys Diagnostic capability and things and so we do work as a referral center where your local veterinarian discovers that there's a particularly challenging problem with your animal, they can either call us for advice or can send the animal here [00:02:00] and we work on them.

So that's where the majority of my time is spent in the clinic seeing cases and teaching. Then I also teach in the classroom to our first through third year

veterinary students and lecture to them about all the basics before they get to us in the clinic. I do some research as well.

And the rest of it is, You know, committee work, that kind of stuff. Sort of that work that you have to do for the university. And then probably my favorite of the extra things that I do is the outreach part of it where I do get to interact with Extension and travel and speak at meetings with producers and do those kinds of things.

I really love that part of the job.

Dana Zook: Because we love to have you in, in some of our programs and that sort of thing. And I guess, I guess I should think about my job is how awesome that is. Cause I do that a lot. That's a majority part of my job.

Dr. Meredyth Jones: It's a ton of fun. I really like getting out and visiting with the producers.

And I think it also keeps me pretty grounded too. I mean, my, my husband and I [00:03:00] raised cattle and so my boots are on the ground as well, but it's nice to see what other people are experiencing in other parts of the state. And just kind of keep that perspective a little bit broader than just my own herd and what I see in the clinic.

Dana Zook: Right. I'm, I'm glad you gave us that background because it's good for people to know that you guys do so much here, so I wanted them to know that. Thank you. So, listeners, most of you know I'm not a goat or sheep specialist, although I do have a little experience with it, but I have learned that I don't know very much.

So I thought it would be great to incorporate some of the small ruminant information, and Dr. Jones is the small ruminant expert, one of our small ruminant experts here at the College of Veterinary Medicine. And so this is a new topic for me talking about pneumonia in small ruminants. So let's jump right in.

What causes pneumonia in some of these animals?

Dr. Meredyth Jones: So it may or may not surprise you to know that most of the same things that cause pneumonia in cattle [00:04:00] are the same things that cause it in sheep and goats. Sheep and goats sometimes handle it

differently. differently. But sort of the same bacteria. You guys are familiar with Mannheimia and Pasteurella and all those usual suspects.

Those are all involved in sheep and goat pneumonia as well. They also have viruses, just like you think about IBR BVD in cattle. They have similar ones, not necessarily the same as cattle. And so it's the usual suspects and the predisposing things like stress and dust and poor nutrition and those kinds of things all play a role in sheep and goat pneumonia, just like you may be familiar with in cattle.

Dana Zook: So what is unique about the bacteria? Cause I assume it's a bacteria, bacteria that causes this, what it was unique about that. that causes this type of pneumonia.

Dr. Meredyth Jones: Yeah, so just like in cattle a lot of times it's the virus that comes in first and then the bacteria comes in and sets up shop and then [00:05:00] that's where the real damage gets done.

So, the bacteria that affect sheep and goats are largely the same as the ones in cattle. Now, there are different strains of those, but they all fall under either that manheimia name or that pasteurilla name. So they're the same types of bacteria, but they may be different strains. What we find though, is in sheep and goats, sometimes they seem to be predisposed or get exposed to what we call really hot strains, meaning they really hit them hard and fast.

And we see that in cattle too, but in sheep and goats, it seems like it can be a disease that hits them very fast. Hits them really hard and a lot of times it's almost like you can be right on top of them and they will still not recover or still not respond to therapy. And so that's a really, I think, important thing about them is [00:06:00] the speed with which we need to get on top of small ruminant pneumonia.

Dana Zook: Okay, so since it comes on so quick. What would you tell producers to try to identify when, when kind of getting on top of this illness pretty quickly? What are they looking for?

Dr. Meredyth Jones: Yeah. So the first things they're going to look like are they're, they may stand off by themselves. They're not going to be aggressive about eating.

They may not be drinking well. Usually the not coming up for feed is usually the number one thing I hear people say. Then my recommendation at home is

that anytime you have an animal that does that. You need to look at them. Are they bloated? You know, is it possibly some digestive thing? Because not eating is this pretty generic, whatever, you know, whatever ails you, you probably aren't going to eat very well.

So it's not always pneumonia, but you should look at them, you know, are they carrying their head differently? Are they walking a different way? Maybe they're hunched up, something like that. Are [00:07:00] they bloated? You know, those kinds of things that it could be as well. Then the next thing I like for you to do is once you get them caught is take a temperature on them because they are likely to have a fever when it's pneumonia.

And so that's probably the most common thing. that you would see on kind of your exam of the animal is that they're likely to have a fever. And so we want to be on the lookout for those animals that are over about 103 to 103.5. That's when we're going to say, oh, there's a pretty good chance this is pneumonia and we probably need to aggressively treat it at that point.

Dana Zook: What are some other illnesses or infections that may be diagnosed by this producer, maybe as they're working through this? Right. We talked about kind of just mass medication and that sort of thing. Like what, what do you, what else can be wrong? I [00:08:00] mean, you said bloat, but what other sort of respiratory issues?

Yeah, I

Dr. Meredyth Jones: think digestive type issues, you know, I got into too much grain yesterday, that kind of deal.

So things like parasites, that would probably be the number one thing that I would say about a goat that is sick is in Oklahoma they're probably parasitized.

Dana Zook: Okay.

Dr. Meredyth Jones: Is it? Is it hamonchus worms or is it coccidia those kinds of things and so there are a number of those things probably the number one things.

Parasites like worms or coccidia and then digestive issues probably are the most common things that we see besides pneumonia and all of those are going to give you kind of that dopey animal that doesn't want to eat. And will you have a

temperature with like coccidia? Usually not. The parasites usually won't have a temperature.

And usually a true bloat. Shouldn't. Won't. Okay. Will be very unlikely to have a fever over 103 or 103 and a half for sure. So if they get into that temperature, then you move pneumonia kind of [00:09:00] up on your list a little higher of the possibilities.

Dana Zook: Okay. So we've noticed this goat sick. We've taken the temp, the temp is in the right range.

So what is your, I hate to say, A list of what not to do, or what, I mean, however you want to take it, Dr. Jones, what should you do or what should you not do, because there are a list of things. Please don't go ahead and do this going

Dr. Meredyth Jones: forward. So one of the issues I think, the most common issue we see is that people will just go ahead and jump on giving an antibiotic.

And that's not always the wrong thing to do, but we have to make the right decisions when it comes to antibiotics. We do have antibiotics like Naxel, for example, that are labeled for pneumonia in sheep and goats that we should always go to first. You're aware that there are no over the counter antibiotics anymore, but even when they were over the counter, they weren't labeled for sheep and goats.

So we, we, with sheep and goats, we don't have just a ton of [00:10:00] choices. And so this is where working with your veterinarian is really important because these are going to be prescription antibiotics that you're going to want to have worked with them, them be familiar with your animals and your place, to be able to prescribe these antibiotics to you.

And people say, well, I don't want to have to take every single animal into the veterinarian. Well, that's where having a relationship with your veterinarian where he's familiar with your herd situation, then he or she can prescribe that to you with a protocol that gives you some guidance about what they want you to do.

They want you to see this set of clinical signs, symptoms, they want you you know, the animal to have a temperature above this, and then you're sort of authorized then. to give that antibiotic to that animal without them having to be physically present. And so again, it goes back to if you have that baseline

relationship with a veterinarian, you can use those drugs without them standing next to you every single time that you [00:11:00] do that.

Another thing that we see really commonly is owners giving Baytril to sheep and goats. And Baytril is a drug that is highly restricted even in cattle. We have to use it exactly as it's labeled for and in cattle that's for respiratory disease and there's a specific dosing range and how you have to give it and that all has to be followed.

There is no label on Baytril for sheep and goats, which makes it illegal to use in them. And so, I would say that's probably the biggest thing that we see from a legal standpoint is people giving sheep and goats Baytril. And there are some nuances about the way antibiotics work and the way they interplay with each other and the way that they kill bacteria, not every antibiotic kills bacteria in the same way. And [00:12:00] so one of the situations we get into is we get an animal in here and it's already had multiple antibiotics. That obviously limits my options then, it limits your veterinarian's options about how can we treat this animal.

And, we obviously want as many options available to us as possible. We want to be able to treat these animals. And so, I get a lot of folks that come in and they go, I've already given them Baytril and Draxin and NuFluor and LA 200. What antibiotic should I give next? And the answer to that is, We need a diagnosis.

If this animal has already had multiple antibiotics and it has not responded, there is a reason it's not responding. And it might be that it wasn't pneumonia to start with, right? You know that it tricked us. It might be that they've now developed a lung abscess and we know antibiotics don't get into those very well.

It might be that all of the lung is damaged [00:13:00] now and there's nothing left to save. And that's where We often get involved is the referral institution is this animal's not responding to anything. What are we going to do? And that's when we're going to perform some diagnostic testing to find out exactly what's going on.

Dana Zook: And at that situation, I think that's an animal welfare. It absolutely is. And we won't, we won't. I mean, it would be in anybody's best interest to figure out what's wrong for the, for the welfare of that animal. Cause they're in pain. They don't feel good. I just talked about how I had the flu. Like that was

Dr. Meredyth Jones: horrible.

So yeah, we've all experienced having difficulty breathing from a variety, for a variety of reasons, allergies, you know, smoke, whatever. And so we've all had that feeling and we know how cruddy that feels. And most of these animals have lost some of their functional lung. And so even when they take a big deep breath, they may only be breathing with half of their capacity of what they would normally have.[00:14:00]

And again, it goes back to, you're losing money. Those animals are not growing, they're not producing, they're not doing what their job is. And they are suffering. And so we need to figure out what's going on, rather than just going down the shelf. the next bottle that we haven't used yet. Right. Probably not

Dana Zook: the best option.

Right. So, you've mentioned this in your presentation before, but many well meaning people out there are providing advice on the web about what worked in their operation, on chat rooms and stuff like that. What is your advice to someone that maybe is seeking, you know, information?

Dr. Meredyth Jones: So just like everything in life, There is good information on the internet and there is abysmal, I will go so far as to say abysmal information on the internet.

I'm, I'm empathetic to producers in that it can be hard to know what's [00:15:00] the good stuff and what's the bad stuff. You know, some guy comes on there. And says, well, I did this in my sheep and goats and it worked great. And you go, okay. And you try to implement that and it either goes well or it doesn't.

And you don't really have a way to know if that guy knows what he's talking about or not. Sometimes you can tell kind of in the way they present it, whether it's you know, they pulled it out of the sky or whether it seems to have some logic behind it at least. Or if they worked with their vet. Yes.

Right. Like you can tell in the way they kind of share that information. And so one thing I tell veterinarians to do, because it's a frustration for veterinarians as you might imagine, to have people come in and they maybe don't have a great understanding and they've been given bad information and we don't want that to happen.

And so one of the things I really encourage folks to do, and this is part of what Extension's role is, to be a source of good information. There, there are places

like Langston University, there's a goat research unit, they have great information. OSU Extension has great [00:16:00] information about sheep and goats and they're growing that information as the popularity increases and so use good resources put out by universities, put out by groups that are professionals at sheep and goat rearing.

Use those types of resources and then use chat rooms with, with, you know, an appropriate amount of caution. That that information has not been, as they say, vetted by anybody. And then run it by your veterinarian. If you have a good, my, you know, my clients who have a good relationship with me know that they can call me and say, Hey, I read this.

Is this, is this something you think will work for me? And then I kind of help them do that. And that's where that relationship comes in where, where you have some freedom then to have those kinds of conversations with your veterinarian. And then I think the final thing that I would say about the internet that I think very few people think about is there's usually no [00:17:00] geography communicated in those pieces of advice.

So, for example, you live in Oklahoma. And somebody in New York is giving you advice about what would work for your sheep or goat. And the diseases are different in New York. The trace mineral status is different in New York. All management is local, we like to say. And so if you've got somebody giving you information from another part of the country, You have to be especially careful about that because that might not apply in Oklahoma.

There are diseases we have in Oklahoma that don't exist in other places or exist in very small amounts. Things like that. And so that's when I think it's easy to kind of forget about is the internet is global, but the information you need for your livestock is local. And again, you know, another commercial for extension.

I'm not paid for this. But. You know. But thank you. This is what Extension is about is you want to talk to [00:18:00] Oklahoma Extension. You want to know what do we have here.

Dana Zook: Right. Extension educators may or may not have an in depth experience with it, but we know the people who do. And so.

And your veterinarian knows. Yeah, and your veterinarian. What they're seeing every day. Yeah. So just a big plug. Have your relationship with your veterinarian and do that. So, just excellent information, Dr. Jones. We'll provide some information in the show notes if we have some and do you have any final

closing comments about advice on what producers kind of can prevent this going forward or just, you know, some final summarizing comments?

Dr. Meredyth Jones: Yeah, when it comes to preventing pneumonia, I think the number one things that I would say is to think about those stress issues, those nutrition issues and those parasite issues. that is a drain on that animal is going to predispose them to pneumonia. So if they've got a bad coccidia problem, what you might [00:19:00] first see is pneumonia in those animals, and they've got this coccidia that's kind of brewing underneath that's suppressing their immune system that's predisposing them to that.

And so I think that's a really important thing. Pneumonia usually doesn't happen in a vacuum. There is usually some story in the background that is the reason that they got it in the first place. And therefore, just giving them a shot of antibiotic a lot of times isn't going to be the answer because we don't know that they've got coccidia.

We don't know that we have something else that's playing into that. And so I think you always. Want to make sure that you're considering, okay, what might have set them up for this. The other thing that I would say is a lot of animals who have pneumonia are dehydrated. They have other issues going on and they may need some supportive care in addition to just the shot of the antibiotics.

And so a lot of times we get folks in here and they're, they [00:20:00] just want a shot from us to treat the pneumonia. And we say, we really ought to give maybe oral electrolytes or we really ought to maybe give them fluids in some way to kind of support them through it. It's just like what the doctor tells you.

You need fluids, you need rest, you need those kinds of things. They don't just give you a shot and pat you on the back and send you out the door. They tell you to do some supportive things for yourself and to take care of yourself. And so I think that would be. how I would round out my advice on managing pneumonia.

Dana Zook: Yep. Just keep an eye out, know what you're looking for. Right. Stop before you give something. Think about it before you just make a choice. Absolutely. Good information. Dr. Jones, thanks for taking time out of your day. Yeah. To provide us with just some really great information. So listeners again, look at the show notes, reach out to your extension educator for sheep and goat, advice and definitely seek a local veterinarian to have in your toolbox, part of, part of your [00:21:00] team on your operation.

So listeners, thanks for tuning in and have a wonderful week.