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Transcription of Calf stress management, episode 21

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BEGIN TRANSCRIPTION

00;00;16;10 - 00;00;38;13
Unknown
Welcome to pasture to profit. My name is Scott Stinnett, and I'm the CSU extension livestock and 4-H youth development specialist here in Kit Carson County in Burlington, Colorado. And I'm joined again by my colleague Travis Taylor, the extension specialist livestock specialist in Wray, Colorado, for Yuma County and the Golden Plains area. And today we have a special guest with us.

00;00;38;19 - 00;01;04;21
Unknown
Doctor Kathy Whitman is our extension veterinarian for Colorado State University. Her primary focus in practice was beef production. And today she's going to visit with us about stress, especially stress on her young calves. So, Kathy, welcome to Pasture to Profit. Thank you both for having me today. Glad to be here. Well, we're sure glad to have you. And so we're going to talk about calf stress today.

00;01;04;24 - 00;01;20;06
Unknown
And so I guess the thing we'd like to kind of pick your brain about, you sent me some things to read on calf stress, some studies that have been done, most of them been done on dairy cattle, which is probably because the research is easier since they're right there on the dairy and not spread out across a pasture.

00;01;20;09 - 00;01;47;03
Unknown
Since you're a beef practicing vet. What are the major causes of stress for a calf starting at birth? All the way until maybe we market them as feeder calves? Sure. So when we look at calves throughout their lifespan, you know, the first big stressful event is going to be birth. And so if those calves are exposed to any sort of dystocia or a little later failure of passive transfer, then those are going to be stressful events that they have to deal with.

00;01;47;05 - 00;02;13;04
Unknown

And then we talk about other events that we do, you know, in regular beef production systems when we have branding and vaccinations, castration, d horning, anything like that, when we're aiming our cows and having to gather those calves again. Those can all be stressful events. Then the the most stressful event that they probably endure is weaning. And so those are a really a really big stressful event when we're separating from the cow.

00;02;13;04 - 00;02;48;15
Unknown
And depending on how we do that kind of dictates the level of stress that they experience. You know, and then and then throughout their whole life span, anytime we have, you know, whether or disease or travel, transport, any one of those can be an additional stressor that we have to think about whenever we're handling these calves. So, Kathy, when we think about that, you know, we talk about all these stressful events, but what are the actual implications of that stress on, and how does it affect those calves that we're talking about?

00;02;48;18 - 00;03;21;08
Unknown
Sure. So when we talk about things that happen early on, say something like failure of passive transfer that impacts a calf throughout their lifespan. So in terms of performance, in terms of productivity as females, that really can have a long lasting effect. And there's been research projects that that have confirmed those, those sort of stressful secondary impacts. When we talk about, you know, stressful events in the acute sense, you know, produced feed intake is one big thing that they find.

00;03;21;08 - 00;03;45;16
Unknown
And so anytime we have reduced feed intake at any stressful event, that's going to set us up for issues, you know, the room and is the most important part of a bovine animal. And so anytime we shut that system down, then we're going to have major issues going forward. The depression in immuno immune response at the time of, of stressful events is also pretty important.

00;03;45;16 - 00;04;08;20
Unknown
So if we have stressful events going on and we're trying to vaccinate at the same time, and our stress levels are are so high that we don't get a good immune response, then our vaccines are not going to be as effective as we'd like. And so all of these stressful events have long term implications for health, productivity, reproductive and performance when we talk about going to the feedlot.

00;04;08;23 - 00;04;37;12
Unknown
So just to follow up on that a little bit, you know, we've had this nice cold blast that we've seen come through. We have those effects of stress on the cow calf still in utero for the majority of our producers here. You know, we're we're talking about those effects that maternally can

happen on a calf as well. So it's not just about managing those calves, it's about managing them prior to birth as well.

00;04;37;15 - 00;05;02;08
Unknown
Would you agree to that? So fetal programing is one of those. In recent years, more studied impacts on calf health and future calf productivity. So anytime we're talking about a calf that's in utero, managing that cow appropriately for stressful events, is going to be a big deal. And so do we need to modify our nutrition level?

00;05;02;10 - 00;05;31;09
Unknown
Do we need to make sure that our management practices are reducing that stress as much as possible? All of those things are going to influence the productivity of that calf once they're born. And so certainly can have a huge impact even in utero. So, Cathy, on some of the reading that you sent me. There was some research done on whether a single high stress event was harder or more stressful than, say, multiple lower level stress events.

00;05;31;09 - 00;05;51;23
Unknown
And it was pretty interesting. Can you go over some of that stuff from that research? Yeah. So so this has been something that I've pondered as a practitioner. Do I want to just get everything over in one fell swoop? Or do I want to spread out those those stressful events? And in this study they found that it was on dairy calves, I believe.

00;05;51;23 - 00;06;16;09
Unknown
But they they found that, you know, when they spread out the events a little bit more, when you stack events that can really lead to a tipping point in these calves and so can really cause bigger impacts. So really spreading out some of those stressful events is probably more ideal. And this is really specific in my mind. This is I apply this to a calf that we have at winning the most stressful event that we've got.

00;06;16;11 - 00;06;46;08
Unknown
You know, when we wean these calves, do we want to be doing all the other things that we, that we think we need to do, like d horning and castration, plus weaning them off and putting them on a truck right away. And so if we spread those events out, maybe do our, our castration and d horning earlier on in the season and then at weaning time, you know, we hit them with a second round of vaccines or a third round of vaccines instead of their very first, and then give them some time to, to rest before we get on a truck and move out.

00;06;46;14 - 00;07;16;16
Unknown
You know, can we spread those events out a little bit to one, help their immune status, but also help? They're getting back on feed and getting out and performing a lot better going forward. Well, when we're trying to

manage these stress events, other than timing of how we do that, there's some new products out there. One, the name brand is Fair Peas, and it's a maternal bovine appeasing substance, which doesn't have a whole lot of definition to it.

00;07;16;16 - 00;07;41;09
Unknown
We're used to in, you know, in AG a lot more definition than that. But reading some of the studies on that semantic conversations with some of our clientele that are using it. What is your opinion on that and what do you think of products like that? And if as they come to market. Sure. So on a personal note, I'm not ever used this product, nor do I have clients that have used it.

00;07;41;09 - 00;08;06;08
Unknown
It's it's sort of a new, a newer product that's come on the market that people have been using. There is some research out there that indicates that it does lower stress levels. Now, whether or not it's going to have a big impact in and of itself, I can't say, you know, based on some of the research that's out there, but certainly it's another tool that we have in our toolbox to use for mitigating stress.

00;08;06;08 - 00;08;29;07
Unknown
And so if we use this substance in combination with, you know, managing our cattle appropriately, giving the vaccines at the appropriate time, maybe splitting up some of these more stressful events. It certainly will help mitigate those additional stress factors. So I think based on some of the research that I've seen that they've done in recent years, I think it does have some benefit.

00;08;29;07 - 00;08;57;21
Unknown
And certainly, looking at it from a from an economic standpoint, you know, does it seem to help these calves, people have to decide that on an individual basis. But I certainly don't think it hurts to try. Well, well, I have one follow up for you, Kathy, as we go through my follow up is, you know, we pre-condition these calves and we talk a lot about the value of them being preconditioned and going forward.

00;08;57;23 - 00;09;26;11
Unknown
One of the biggest questions that we receive is that we really what is the optimal time between the preconditioning shot and following it up with a booster? Because like you said, we need to spread these things out a little bit. What time period? You know, every vaccine says 214 to 28 days. Do you have an as a practicing bovine vet?

00;09;26;13 - 00;09;48;05
Unknown
Do you have something that you recommend to your clients, whether it's on that two weeks or 28 days spectrum? For a lot of these vaccines and weaning time. Right. So that becomes a real logistical challenge, right.

So setting up your vaccine schedule depending on, you know, do you start at branding and then you consider the booster at the time of, of of weaning?

00;09;48;08 - 00;10;14;27
Unknown
Or do you go ahead and do a preconditioning program and separate that by a couple of weeks? I would say at the minimum you need to have two weeks. And that goes for pretty much any vaccination in order for the immune immune system to react, to respond appropriately, it needs to be a two week minimum. I would go up to a six week maximum in a preconditioning period, and usually people aren't going to house those calves that long, so you're probably not going to get that far out.

00;10;15;00 - 00;10;40;27
Unknown
So really, if you can get a minimum of two weeks, by then that calf's immune system is ready to receive that booster. And so that from that standpoint, then you can just set it up as a, as a logistics question as opposed to an immune response question. So that being said, there's studies out there too that say if you vaccinate at the time of of branding and then your next vaccine, your booster vaccine is actually clear at weaning.

00;10;40;29 - 00;11;02;15
Unknown
They still get benefits from that. So I know a lot of people that do that as well. And that's certainly it's not perfect, but it's it's pretty good. So based on the research that I've seen, Scott, I think that answers a lot of the questions that I have. And I want to thank you very much for being on our Pasture to Profit podcast.

00;11;02;18 - 00;11;22;09
Unknown
We appreciate it. We'll probably call you back in from time to time to to visit about topics that arise here on Pasture to Profit. Well, I'd be glad to join you too. Well, and with that being said, I think that'll wrap up this session of our Pasture to Profit podcast. If you have any questions about this one or a topic that you'd like to see.

00;11;22;12 - 00;11;48;08
Unknown
You can contact me Travis Taylor at the Yuma County office at (970)332-4151 or. Scott, how can we get ahold of you? I'm here in the Kit Carson County office in Burlington, Colorado. You can reach me at (719)346-5571. Well, until next time. We thank you all for tuning in to our Pasture to Profit podcast.

END TRANSCRIPTION