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Transcription of Managing heat stress, episode 54

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00;00;16;18 - 00;00;44;12

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Welcome back to the Pasture to Profit podcast. I am your host today, Travis Taylor. I'm the CSU extension livestock specialist in the Golden Plains area here in northeast Colorado. And again, I'm joined by my fellow colleague Scott Stinnett, livestock and youth specialist. How to Kit Carson County and Scott. The days are warming up and we are looking at increased heat temperatures and it's dry.

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You know, we think that this deal falls into the line of talking a little bit about heat stress on livestock or heat stress, particularly on beef cattle, and what how it filters in and its effects on the cow. So with that being in mind, Scott, when we just start talking about those factors of heat, humidity, ambient temperature, including wind speed and air movement, maybe haircut activity and exercise, when we start talking about the beef animal, we know that the number one factor we have is their water intake.

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So what do we need water intake wise for beef cows right now? In these hot days of summer, just like you or I, the hotter it gets, the more water we need, right? The drier the conditions, the more we hydrate. But then again, sometimes the higher the humidity, the more will sweat. So having plenty of water for our cattle is a big deal.

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So we're going to start there. That having water is the most basic heat stress management item that you can do. And so a lot of times we're looking at water. How much will they consume a day. And so we're going to give you some good rules of thumb out there to think about. So first of all any day over about 90 degrees your your average cow is going to drink somewhere around 20 gallons of water, whether she's doing a whole lot that day or not.

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Now this is drinking and there can be some water provided by you know, we get a good a good rain and the grass gets lush again. There's a little bit of water when they intake that natural pasture grazing. But then again, like we are right now, it's pretty dry. So we're going to have to provide most of the water is in a source that's consumed by drinking.

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And so a good rule of thumb is for days that have highs over 90 degrees for our our cattle, we need to provide about two gallons of water for every 100 pounds of body weight. So if you got a 1,200 pound cow, they're going to need 24 gallons of water. You got a 1,600 pound cow. You're going to need about 32 gallons of water per cow.

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So number one, knowing the average size of your cows that are out there, if you've got 100 head of 1,200 pound cows that need two gallons a day, they're going to drink up somewhere around 2400 gallons of water every day. But then if they got calves at their side, calves are going to need a drink too, right? So we need to match maybe tank size and some of the things that are out there.

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You know, most of our stock tanks, whether they're solid bottoms or whether they're bottoms, we pour concrete in to make a hard bottom there. Most of the time we get them about two feet deep. And the reason we do that is, you know, the the cattle will drink it down, it'll refill. But the amount of water that's in the tank will help keep the tank water relatively cool.

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So looking at our tanks, if you're in, let's say you got a little lot. You got your kids for H steers. They're drinking out of a six foot tank. It's two foot deep. That's about 395 gallons of water. So that thing probably needs to refill pretty often to freshen up for that, you know? Nice, right? We're almost fair time here.

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That nice 1,500 pounds tier. Correct. Now our bigger out on the pasture we may have 20, 2124ft tanks. And so a 24ft tank that's proximately two feet deep. We'll hold about 6700 gallons, 6700 gallons of water. So could we take care of 100 kid cows at a 24ft tank during the day? Probably so. Especially if it refills at a appropriate rate.

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And we don't have all the cows kind of hitting it at the same time. So let's talk about cow behavior. When one, 1 or 2 lead ones goes to drink, here comes everybody else, right? And keeping it fresh, keeping it clean,

keeping those calves out of it. Kids this is something to drink. This is not the pool. It shouldn't be swimming, right?

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That's our number one thing that we get into in the summertime. But providing enough water is heat stress management number one. Right. I think that's important. And as you alluded to, particularly if we've got younger calves on there, because a calf that's 120 to 180 days old to drink 5 to 8 gallons self, but it has to be able to reach it in an appropriate time when they come in.

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And it's very important health wise, particularly in these dusty situations, respiratory, to have those calves drinking fresh water at a regular rate. So I think that's important. So besides cool water, you and I were talking a little bit about how important providing shade is. You know, we know it's important when we're up around the corrals and we've got the heat there.

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But you kind of had run a little experiment out there in the parking lot here a couple years back. Can you elaborate a little more on what you found between shade and non shaded areas right there in Kit Carson? Yeah, I was trying to prove a point to some of our for age kids about making sure you provide shade for your animals.

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And so what we did was we grabbed our little thermometer gun that you aim it at the surface, you pull the trigger and it gives you a reading of what the surface is. And so it was a 96 degree afternoon, and we walked out here straight out of my office to our our sand and gravel parking lot and shine that thing right down on it and got a temperature reading back that, that ground temperature on a 96 degree day, that bare ground was 139 degrees.

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Ouch. That gets a little bit warm for baby calves to even lay down on or anything. Yeah. So let's think about, you know, yeah. When we want to haul cattle, we're going to keep them out on, you know, on hardtop, on blacktop, which gets even warmer. You know, this is why we ship in the middle of the night if we can.

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And early into the morning. Now we took that same gun and we went over underneath one of the loafing sheds on the big barns over here. So it was shaded, but it was bare again, you know, a little gravel, a little bit of sand. And actually being in the shade, the temperature, the ambient temperature was 96, but that ground was only at 90 degrees.

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And so why would a cow want to lay down on something that's feels better? Because it's five degrees cooler than the ambient temperature? Then we went out in the park and just it's a nice grassy park. We got here at the Kit Carson County Fairgrounds really pretty this time of year and good Kentucky bluegrass and took the temperature there.

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Well, ambient temperature was 96. Well, and the temperature of the grass was 96. But then we finally found my favorite spot. And the reason why every once in a while, the kids find their extension agent taking a nap under the tree is. We got up underneath one of these big shade trees. We got here in the park on the grass, and you point the old thermal gun down there, and it's only 80 degrees on that grass, so you've got 96 degree ambient temperature.

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But a cow or any other animal, especially like calves, could lay down in the shade on a grassy surface underneath the shade tree and could get down to 80 degrees. They're laying on. And you wonder why on days like today, you find those cows down in the creek bottoms, underneath the underneath the trees shaded up in the afternoon.

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Yeah, I think we all know that. And I didn't want to change strategies here, but we've talked about fly control on a couple other episodes of our podcast. But when those cattle at this time of year, you see them down the road, they're all bunched together calves, cows, everything bunched in those tight packs. It's not very easy to release heat.

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So not only are we getting stress from the flies sucking on those cows, we're getting stress on those cows. Dealing with those heat and stomping on those hot days. Increased activity, increased masses together causes a little more heat stress than we'd like to see. And and we know that he really affects younger, heavier and ill or sick cattle.

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So those three animals, if they're in the middle of that bunch, those cattle that are heavier, if we're in a feedlot, heavier steers, if we're out on the pasture, young cattle or any cattle that may be compromised, respiratory, from having an effect there. So fly control that we talked about earlier can really help with heat stress this time of year in these pasture groups as well as shade cool clean water.

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And then we do have differences in genetics. You know, the Angus Association has a, a hair shedding, EPD that deals with cattle that are in hotter environments to get that winter hair coat, shed it out. So the ability for these animals to shed and not have the external amount of hair coat on them helps immensely. As we get to that point in the summer where we're trying to reduce heat stress.

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Right. And I think another thing producers could do is just take some good observations. I mean, you and I are cow nerds. We talk about it all the times, you know, but being able to go out and. Yeah, check your pastures. Sure. First thing in the morning to do your pasture checks, but maybe go back out in the afternoon.

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See you laying down. And who's up grazing. You know, those ones that are can handle a little bit of heat and can get up and keep grazing. They're not just overheating. Laying down might be the ones that you need to focus on keeping those type of genetics versus the ones that are stressing out. You know, they're they're looking for shade.

00;10;44;23 - 00;11;04;05

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They're not up and grazing. They're the last ones to get back up and get back to grazing in the evening time after they've had their afternoon time off and some, some good observation there, you know, look for fat cows whose fat on this environment, who can handle it. You know, if they're up there grazing they get a little bit of fat around their tail heads.

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Man, what a good cow, right? Absolutely. I saw that in practice at our convention on the tour the other day, because we've seen all these cows around. And I went to Cherokee Ranch, which is Seneca Treatise cattle. And they hadn't poured on them. They hadn't done anything. And they don't have the fly pressure that we have in some other locations that I saw cattle just down the road.

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So, you know, there are some genetic differences between cattle that can be bred in over a systematic operation and breeding scheme to make these cattle handle different environmental facts a little better. But in terms of the in terms of the bottom line, Scott, if we have to get down to the bottom line, and in terms of making sure that we're dealing with heat stress, what would be three things on your bottom line that would help make it more profitable for individuals?

00;12;03;16 - 00;12;27;15

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Well, I could repeat one three times, which would be water, fresh, clean and available. The more tanks we've got, the less that they've got to travel, the better. But fresh, clean water, whatever we can do to get that to them, have it available. That's really going to help with the stress management. I think that's number one. Number two is thinking about the environment they're in.

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You know, there are some pastures that have more grass. There are some patches that have more bare ground. There's some pastures that have more North face slopes to the to the hillsides and some that have more south. And so places where you can give animals relief from those ambient temperatures, maybe even pastures that get more wind blows through them, helps to cool them off.

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You know, in our environment, the wind's kind of, you know, can be a plus, can be a minus. But really, for helping cool animals off that evaporative cooling of a good breeze, if we can get them in a breezier location is helpful. And then the last thing is, you know, be observant, you know, what do you have?

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What? Who's doing the best, who can really handle the heat stress. And, you know, whether it's, you know, all my red cows are better than my black cows at this or whether it's this bloodline seems to do better and be up and grazing more than this bloodline does, making sure that you've made this observation so that you can help handle heat stress.

00;13;30;09 - 00;13;54;12

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And the last thing I'll put out there we really didn't talk about. But transportation, you know, and handling, I had an old guy tell me a long time ago, set an hour in the mornings or two in the afternoon. And so, yeah, we I'm not a real great early bird. Early riser. I'm getting better with age, but, you know, getting up and getting things started at as early as possible when it's as cool as possible that we can.

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That makes a world of difference. On giving those cattle the chance to go and recuperate from any stress we put on them before the heat stress of the day is added on top. Yeah, I think checking your little apps on your phone and looking what the week's going to be like and planning when you're going to work. Cattle and facilities is a great B.K. practice, whether that be for the heat of the summer or even in the cold of the winter.

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Working those cattle when it's appropriate, I think is huge. So. And the last thing, last thing I'm going to throw out there before we get away is don't forget to take care of yourself, your dogs, your horses as well. You know, heat stress can get to any of us. I know I've overheated once in my life and it was not a fun experience.

00;14;41;26 - 00;15;00;25

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And you know, I'm a little more sensitive to it now sometimes. But make sure not only are your cows in good shape, but yourself, you're like I said, that dog that rides up there, up front with you, with the air conditioner on, he he's he or she is going to need a good drink too. And that horse that stood out there and worked with you all day long needs just to get a chance.

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Yeah, if everybody's well watered and taken care of, things seem to go a lot smoother. And with that, I think that brings us to the end of this Pasture to Profit podcast. I again, I'm your host, Travis Taylor, and if you have questions, you can email me at Travis.Taylor@colostate.edu or call me in the Yuma County office at (970)332-4151.

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And if Scott, they want to see your pictures of your thermometer, how do they get ahold of you? Well, I'm here in the Kit Carson County office. You can call me at (719)346-5571 or shoot me an email at Scott.Stinnett@colostate.edu. That's STINNETT at colostate.edu.

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And with that. Please tune in next time to our Pasture to Profit podcast.

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