

Sheep and Goats in the Heat

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SPEAKERS

Amy Powell, Speaker 3, Olivia Hanlon

Amy Powell 00:15

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

Olivia Hanlon 00:28

In this episode, I'm visiting with Amy Powell, Education Extension Specialist in Animal Science for Iowa State University Extension and Outreach, and we're talking about summer temperatures and those impacts on our small ruminant herds. I'm Olivia Hanlon, Farm Food and Enterprise Development Education Extension Specialist and we hope you enjoy the show. Amy, welcome back. We're glad to have you here.

Amy Powell 00:50

Thanks for asking me to come back.

Olivia Hanlon 00:52

So we've already gone through one prolonged hot and dry spell this summer, and we know there's probably more on the way. So let's take a look about how this impacts our animals, particularly grazing animals. In what ways does that impact those animals?

Amy Powell 01:06

Well, when we have a drought, we know that our grass doesn't grow as quickly. We can also see that the nutrients found in the pastures are not as great as they would be if we had lots of moisture, and a lot of growth, and nutrients going into the soil. And so the other problem that

we can have, besides nutrients is an increase in the incidence of parasites because once the grass gets below about two inches, goats and sheep, then that larvae that came out of the fecal matter of an infected animal can then crawl up that blade of grass pretty quickly. And then the sheep can grab on to that, or the goat can grab on to that, and you could have a higher incidence of parasites, which can really wreak havoc on our small ruminants, as they are a little bit more susceptible being such smaller animals, than our large beef cattle and other large ruminants. So those are probably the two biggest ones, the lack of nutrients to our animals, as well as increased problems with some parasites.

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Olivia Hanlon 02:09

So along that line of lack of nutrients, let's talk about our pastures for those grazing animals. When do we need to be concerned about the amount of forage that's left for grazing? And when do we need to start supplementing, hay?

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Amy Powell 02:21

I would strongly encourage anybody who has a pasture to walk through that pasture, especially if you've noticed that you're not having a lot of rain. See what's out there do more than just drive by. Walk through that pasture. See, if you have grass growing, if you have weeds growing. Are there areas in the pasture that seem to have very little grass? Are there areas that seem to have a lot more weeds? We get into problems with selective grazing, with small ruminants, where they they eat up all the clover because that's their favorite. That's like the chocolate candy, and they ignore all of the Tootsie Rolls that are over here that they don't like to eat. And so we want to make sure that the animals are evenly grazing in the pasture. Secondly, obviously, if your grass is brown and crunchy, then the animals are not getting a lot of nutritive value out of that pasture. So if you can rotate pastures more frequently, if you're fortunate enough to have smaller paddocks that you can rotate them through. In a drought situation, you may need to do that every day even or every couple days. Or you could reduce the number of animals that you've got on that pasture because our stocking density and stocking rates is going to be much less in a drought situation than it would when we have great lush pastures. So it's really on an individual basis to what your pastures look like. But when you start to see bare ground or your grass is brown and crunchy, then that's a definite indicator that you need to start supplementing or move them off that pasture and onto something else.

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Olivia Hanlon 03:55

Yeah, that makes a lot of sense. Amy. So many of our small farmers are also trying to put weight on those spring lambs and wethers. How does the heat impact rate of gain with our animals? And what options do we have to help with that?

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Amy Powell 04:10

Well, small ruminants are not very different from us, you know, if we're really hot, we're not going to eat. So sheep and goats are no different than that. So we're going to see a decrease intake of forage or grain, whichever one you're feeding during, during the hot summer months.

It's just that's natural and we need to understand that the rate of gain is going to slow down. If you have a certain goal weight that you want your animals to be at by a certain day, then you need to factor the weather into that. The heat index is probably what's the best indicator of heat stress and animals, which is a combination of the temperature itself as well as the humidity. When we get into those high heat indexes, we really need to watch our animals. If we can make sure we're providing shade, plenty of fresh water (water is key), if they don't have water they're not going to eat. So we need to make sure that they're drinking plenty of water, that will encourage them to eat, the forage and the grain that you provide. If we need to have trees or a shade tree or a shaded area out in the pasture, or you could bring them into the barn even. And then also, if you're feeding grain, feed it at the cooler parts of the day. So early in the morning, late at night, they'll have a greater tendency to eat more if it's cooler outside. And then if you're, if you're on full pasture, they're probably not going to be super active during the heat of the day, they're going to go and rest under a tree and graze when it's cool in the morning and when it's cool at night. So just being cognizant of those things and realizing that it's not the best idea to try to push a lamb to really grow fast, when it's extremely hot, or a goat either one. They're just not going to do it and it's not very healthy for them to do it. But making sure that you have plenty of fresh water and forage available to them so they can eat when they're ready to or when they're able to.

 Olivia Hanlon 06:13

Okay, those are a couple of good tips there. So if we happen to have any 4-H'ers or other showman listening, how can we help these animals look their best for fair even when it gets super hot out this summer?

 Amy Powell 06:25

Probably the biggest thing that we need to do is make sure that when we work with these animals, it's in the cooler parts of the day. So don't go out and try to halter break your animals at noon, when the sun is directly above and it's 100 degrees heat index out there, do it early in the morning, and late at night when it cools off a little bit. And if it is extremely hot outside, then maybe skip that day, you don't need to work with your animals on that day. Obviously, you need to feed and water them every day and check on them, but I think when we're working with show animals and those club lambs or market meat goats, making sure that we're really paying attention to the signs of heat stress. If your animal starts to pant, if it just lays down, it's very lethargic, doesn't want to do anything, rapid breathing, you can take their temperature, if their temperature is high, and you know they're not sick. That's an indication of heat stress. Any of those things you start to see with your animals, then that's a time to stop and get them cooled off and make sure that we don't stress them out to the point that it could be lethal for your 4-H lambs and goats. One thing you don't want to do though, is if your animal gets overheated, don't spray ice cold water on them. It's okay to give them water, but it doesn't work really well, especially with sheep because of the wool. So if you have a lamb that's heat stressed, and it's got a little bit of fleece on it, it's not a really good idea to just pour ice cold water on them. So make sure you don't do that. But they do need to have access to fresh water to drink.

 Olivia Hanlon 08:00

Okay, so then when they do get heat stressed, having that fresh water in front of them is probably the best way to get over that.

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Amy Powell 08:06

Yes.

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Olivia Hanlon 08:08

All right. So like you mentioned earlier, fresh water is important for rate of gain, and like you just mentioned is important for the heat stress, but can inadequate water lead to problems? What kind of problems does it lead to? And how can we avoid that?

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Amy Powell 08:23

Well, water is the key nutrient, it's the one needed in the largest amount by all animals. If we don't have water, you know, water moves nutrients through our bodies, it helps with cellular growth and development, it helps move waste out. And when you don't have water, then all of those things start to slow down, the animals not going to move as much. They also will not eat as much, and one thing about water that sometimes our young people mistake is that they pour water into a black bucket and then set the bucket in the sun. Well, that black bucket gets really hot. So I would caution anyone to try not to set your waterer in the middle of the hot sun, especially if it's a black one because it will really get hot, and goats and sheep and all livestock really don't want to scald their mouth when they're drinking water. So that's just something that I've picked up over the years. Just try to avoid black buckets if you can when watering. And the other thing you want to do is make sure that if you're in a pasture situation, that the animals don't have to travel very far to get to the water source, especially if it's extremely hot. Research out of I believe it was University of Missouri, found that they need access within 800 feet of where they are. So there's a good rule of thumb for small ruminants, especially to have access to that water and not have to walk a tremendous amount through the pasture to get to that fresh water. There are several health issues that could be caused from not having water, but it's just really key. I always tell people if you're not going to drink it, then your animal won't drink it either. So make sure it's clean, don't just fill it up and then leave it and assume that they're drinking. Always check your waterers, even if it's an automatic waterer. Every day, clean it out, get the hay and straw and dirt and debris out of it. And if you're not willing to drink it, then chances are, it's probably not something your animal wants to drink, either.

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Olivia Hanlon 10:21

Right. So along with that, Amy, is there a certain amount of time we should let a waterer go before we completely dump it and start with all new fresh water? I know at my house, we're pretty bad at just adding water onto the top cleaning out the hay. But how frequently should we clean clean those waters and start fresh?

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Amy Powell 10:20

A Amy Powell 10:39

I think it's dependent on how much debris and dirt gets in there and how big the water tank is, you know, if it's a several gallon water tank, you probably don't want to dump it every day, because that's a big waste of water.

O Olivia Hanlon 10:51

Right

A Amy Powell 10:52

But, but the other thing is to check it periodically throughout the day, don't just fill it up in the morning, and then leave your animals. Especially if it's a small container, and it's a really hot day. But you know, a good scrubbing of that waterer weekly is probably a good idea to get all the algae and stuff growing on it off, and then refill it those with an automatic water where you know, you can hold the float up and kind of scrub it out and then let it go and you should be okay. But even for biosecurity reasons, as you bring new sheep in or new goats in and take them out, it's a good idea to clean those waters in between those groups of animals just in case, just to prevent any type of spread of disease, especially things like sore mouth, or things that are around the animal's mouth, eyes, those kinds of things, mucous membranes, that they may stick in that water and possibly spread something to another animal.

O Olivia Hanlon 11:43

For sure, that makes a lot of sense. So you mentioned earlier, obviously, our goats and sheep do need shade. But say we don't have any shade trees or something like that, what's the best thing that we can do to help those animals get shades out in the pasture?

A Amy Powell 11:57

You can build a little lean-to out in the field, just a you know, a cover with some sides on it, that can help them just a place to get out of the sun. Or if you have access to a barn, you want to make sure that that they can get in there and get out. But sheep and goats are not as susceptible to heat stress as some of our larger ruminants. And that's, that's nice and goats that have really floppy ears and loose skin could be more heat tolerant than say some of our board goats that are really tight hided. So if you if you have some of the brush goats that are really floppy and have lots of skin, you're lucky because they're not as susceptible. The other thing about about sheep in particular, you think a lot of times, well they've got that wool and they're going to be hot, but wool actually protects the sheep in extreme heat. Now, if the sheep has six inches of fleece, that's not a good idea. But research has shown that sheep that have about one inch of fleece are more comfortable than sheep who are slick sheared with no wool at all. So that's another thing, if you don't have shade, keeping the fact that if your sheep have about an inch of fleece on them, they're going to be more comfortable than a sheep that is actually slick sheared with no wool at all. But at the same time, you also want to make sure you shear those sheep, because once you get over that inch mark, you're probably going to get into some issues with heat stress if they're out in the middle of the hot sun. Okay, that's very

interesting. I never would have guessed that having that extra inch of fleece would actually help them be cooler. When we're looking at the shelters that you mentioned maybe having them in the barn and those lean-to's out in the pastures. How can we ensure that our shelters have good ventilation and good air movement for those animals? Ventilation is key. Fans work really well, I would suggest that you get down on all fours, get down on the level of the sheep or the goat, and make sure that air is flowing at their level. It may be great up high where you are, but is it flowing where the sheep are and then adjust your fan or your ventilation to match that to make sure there's a breeze going through there. If you do use fans, make sure especially with goats and sheep that the cords are up out of the way because they will chew on them, and we don't want fried lamb at the end of the day. So there are some things that I think are a little more concerning when we're using small ruminants because they do like to chew and get ahold of things that maybe the cattle won't do. But yeah, fans and fans with misters can work to just to help with that evaporative cooling and helping keeping them cool throughout the day. But if you don't have access to electricity, just make sure that the airflow is good down low on the ground where those animals are.

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Olivia Hanlon 14:28

Okay, so we've covered a couple of the big items, I would say. Is there anything else that we need to think about to help us get through these hot months?

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Amy Powell 14:36

You might need to provide some additional forage that's more energy dense so that what they're eating is really high in nutrients. So maybe providing a higher quality forage or a higher quality feed at that time so that even though they're not eating as much because they don't want to, it's hot, what they are eating is really nutritious and very nutrient dense. So those are some things to keep in mind. If you notice your animals aren't eating everything that you put out for them or they're laying around a lot and not grazing, then try to find some higher quality feeds or forages to give them and you can, if you're not sure what the forage value is of your pasture or your hay, then you can certainly have that tested and they can tell you exactly what's in there. And some other things to keep in mind is the stage of production that those animals are in, so if you've got does that have kids on them, right now, it might be a good idea to do early weaning because we know that that milk production takes a lot of water and a lot of energy, and so maybe it would be better for both parties if we wean a little earlier and reduce the nutrient requirement for for those does or those ewes or whatever happens to be lactating. So keep in mind, a ewe and or a doe or a nanny on maintenance doesn't take as many nutrients as one that is gestating or lactating. And then of course, you're growing animals are going to take a higher plane of nutrition as well. But make sure you know that because one solution doesn't fit every single animal in our herd or flock.

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Olivia Hanlon 16:08

Right. Okay, well, thank you very much for joining us today, Amy. If people are looking for more information, or they want to see some of the tips and tricks, is there somewhere where they can go that would have some good information for that?

A Amy Powell 16:20
The Pasture Management Guide for livestock producers.

O Olivia Hanlon 16:24
Okay!

A Amy Powell 16:24
And that one's in the extension store. So that probably would be our best reference. Maryland and Michigan State both have great resources, Cornell, a lot of the other land grants will have information on sheep and goats.

O Olivia Hanlon 16:39
Perfect! All right. Well, thank you again, Amy, and we look forward to having you in the future.

A Amy Powell 16:44
Okay, thank you.

S Speaker 3 16:46
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