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. In this episode, I'm visiting with Amy Powell, extension youth STEM specialist in animal science for Iowa State University Extension outreach. And we're talking about fall sheep breeding season. Amy, welcome. Thanks for being on the show.

Well, thanks for having me. I'm looking forward to it.

Great. Amy, we're going into Fall season here in Iowa. And I know this is typically the time of year when people start to think about breeding season for their sheep. Is this the normal time for everyone?

Well, most of our sheep are seasonal breeders, and they don't show signs or are not in estrus year round. And so as the day length shortens, that is when most sheep are going to go into estrus. And so fall is the best time of year to breed your youth because that's when they naturally come into heat.

Okay, so let's talk right about that. How do we know when our youth are in heat?
That's an excellent question that no one knows the answer to sheep unlike cattle, or pigs or other livestock really don't show any outward signs of being in heat. And so the, the number one way to to know is to put them with a ram, and if they stand to be mounted, then they're probably in heat. Some people will use what we call a teaser RAM, which is the vasectomised ram. And they'll put those Rams in with their use to see if the user in heat, but you can also artificially synchronize your ewes and cause them to come into heat. And then you would know, X amount of hours after you injected them that they they are in heat that as far as showing visual signs, they really don't show any signs of heat. Okay

Okay, Amy what type of cycle then are they running

an estrus cycle ion a ewe is about 17 days 17 to 21 days, depending on the breed, but you can you can pretty much count on 17 days.

Okay, so obviously, when we're trying to bring ewes into this season, we need to take extra good care of them. Are there special dietary or nutritional guidelines we need to follow to kind of help them prior to that point.

Yes, probably a month before you get ready to breed your ewes, I would encourage producers to get those ewes up and just really evaluate them. Make sure that their feet are sound, they don't have any foot rot or other problems if you need to trim their feet. Check them for parasites or for symptoms of parasites. And if they are having some problems, go ahead and deworm them. And then body condition score your ewes. So the body condition scoring system for sheep is a one to five system with one being skin and bones. They're extremely thin, and five being obese. And the best way to determine if your sheep are overweight or underweight is to feel down their backbone. And if you can feel every bone in their body, kind of like the knuckles of your hand, and then they're way too thin, they're more towards the one. And we definitely need to increase their plane of nutrition. If you can't find a rib on your sheep, then that tells you your sheet might be a little too well loved and has been fed a little much. And you might need to pull off the amount of feed that you're giving them. So we strive to be somewhere in the middle, the 2.5 to three range is the ideal body condition that you want for your sheep. So once you've kind of decided where they fall in that one to five range, then you can sort them out accordingly and those that are really thin or in that two to three range, I would encourage you to flush them which means that we're going to feed them extra nutrition prior to breeding. And we want to start flushing them about two weeks before you put the ram
in. And what this does is it hopefully allows the ewes to produce more eggs meaning that you will increase your chances of them conceiving and also your chances of them having twins which is something we really strive for in the sheep industry. However, if you have a really obese ewe feeding her extra nutrition is not going to do any good because us that are extremely thin or extremely fat probably will not breed, they will have trouble breeding. So that would not be helpful to you that is really overweight. The other thing that you want to do is to check their utters at this time it's much better to cull out a you before you breed her and get her out of your flock before you breed her and you think well maybe I need to hold on to her because she has lambs inside of her. So as you look at your ewes, check they're utters, you want to palpate them make sure they're fairly symmetrical, that they don't swing back and forth that they're they're held up pretty tightly, and that they don't have any hard spots or lesions and they should have two functional teats. Now sometimes sheep will have extra teats, and that's okay. But we want to make sure that there are at least two that look like their normal size and circumference that a baby lamb could latch on to. And once you've done all of that, then you call out those that really don't fit your breeding plan. And start with a good set of ewes, put them on that additional nutrition. And as far as I talked about flushing, as far as how much to feed them, and what to feed them, flushing can be done by putting them out on really fresh pasture, you don't necessarily have to feed them additional grain. You can also feed them a higher quality hay during this time if you want to. But a lot of us since we live in the Corn Belt will just choose to feed some cracked corn in addition to the roughage that they're already getting. And for 150 pound ewe I would start off the flushing by feeding them about half a pound a day and gradually increase to a pound a day. And then you want to continue feeding them for the two weeks prior to breeding and then two weeks into the breeding season. And by doing that the thought process is once they're bred that added nutrients will help that embryo grow and become viable. So those are some things during the breeding season. Once the ewe is bred, you can really kind of put her on a maintenance diet, she doesn't necessarily need an early gestation, she doesn't really need a lot of extra nutrients. If you've got high quality pasture or good forage, that's really all they will need. And then when they get into those last excuse me, lasts four to six weeks of the gestation, that's when you really need to increase their nutrition, they need to gain probably point three to point five pounds a day to be able to maintain that pregnancy. And so you'll want to do that by increasing the quality of your hay as well as supplementing with grain. And no matter what stage your sheep is in, we always want to make sure that they have access to clean fresh water and also minerals during all phases.

Christa Hartsook  07:16
Okay, a lot of great information. Amy is there an easy way for maybe a new producer to tell if ther ewe is pregnant?

Amy Powell  07:27
Probably the best way is to put a marking harness on your ram.

Christa Hartsook  07:31
Okay.
Amy Powell 07:32
That way when the ram marks the ewe then you know that at least she has been serviced, it doesn't necessarily mean she's been bred. And then 21 days later, if you'll change the color of the crayon on that marking harness and put another one on, then you can tell if she cycles back through. So if the ram marks her again and another 21 days, then she is not bred. However, if he does not, then you know that she got bred on that first cycle. And it's also a good idea. We always go out into the pasture each night and write down the numbers of the ewes that were marked on that day. And that gives us a good estimate of breeding date. You can have a veterinarian or a licensed technician come in and ultrasound your youth. And they can usually tell at about six to eight weeks if your ewe is pregnant. And then on past that, of course when she starts to develop an utter is a good indication that she is bred.

Christa Hartsook 08:24
Sure, absolutely. How long is that normal gestation period then?

Amy Powell 08:29
About 145 days or five months?

Christa Hartsook 08:32
Okay, so then, let's talk a little bit more on the ram side of things getting that ram really ready for the breeding season. What do we need to do there?

Amy Powell 08:43
Well, rams are half your flock and sometimes we forget about the ram we focus so much time and effort on making sure our ewes are ready that we don't take the time to really look at our ram and make sure he is ready as well. So it is important, just like with the ewes to get him up, make sure he can walk. If he's got foot problems, he's not going to be able to walk around the field and get your us bred. Once again, if he looks like he has parasites, go ahead and deworm him, update him on his vaccinations if needed. And then I would encourage most producers to have a veterinarian do a breeding soundness exam. And what the veterinarian will do is come out and he'll palpate the testicles to make sure that they are there no lesions and that they're symmetrical and that there's no problems with them and then he'll also collect a semen sample and then look at that under the microscope and he can he or she can tell you what the sperm count looks like if if the animal is fertile and ready to go. If you don't do that and then you get halfway through the breeding season and notice that all your ewes are continuing to cycle you've wasted some valuable time so I feel like a breeding soundness exam really can save you your time and money as well. And then you know up front well my rams not ready to breed. Let me Let me go to plan B and borrow a ram or do something else. It's also a good idea to flush your ram as well, um, you want to do a beat breeding soundness or a body condition score on him. And if your ram is below that 2.5, then you want to feed him some extra grain, couple pounds of corn cracked corn should should do that for him. And if you're feeding, if you're doing
A ram lamb, most of our rams are going to reach sexual maturity around six months of age, I would encourage you to wait till they're about seven or eight months to use them on on ewes. But they may also need extra nutrition even during the breeding season. So you may have to pull them out at night and feed them a little extra grain because they are young and they're expending a lot of energy. While they are breeding. I mentioned the marking harness always a good idea, you can also paint the brisket of the ram. And so when he marks the you, he'll leave a mark on her on her rump. And if you are using a ram lamb, and he can't breed as many ewes in a day as a mature ram. So the rule of thumb is if you have a ram lamb, you want it to use about one ram for every 15 ewes. Of course, this is dependent on the terrain that he's going to be walking around the size of the pen, and those and the maturity of the ram. So those kinds of things can make a difference. If it's a smaller pen and the terrain is really flat like here in Iowa, he could probably mate up to 30 ewes in a season. Usually a ram should be able to breed three to four ewes a day, assuming that they all come in at different times. Now, if you synchronize your ewes and they all come in within a week's period, then you definitely would want to have a much lower ratio of ram to you because that's a lot. A lot of work on that ram are older rams can breed between 35 and 50 us in a breeding season and that 17 day cycle.

Christa Hartsook 11:57
Amy just a question of curiosity, is there a lifecycle on that ram? You know, it's at a certain point, are you needing to replace that ram in your herd?

Amy Powell 12:07
Really, that's more on it, how many replacement ewes you keep. So if you're keeping a lot of his ewe lambs, then you probably would want to change him out every two years or so. Because you you know, you don't want to do inbreeding with your use. But yes, as a ram ages, just like with any other livestock, they're not going to be as mobile probably be one thing and maybe not have the sperm motility and concentration of sperm that they need. But usually, you know, two to five years is probably the lifecycle that you want to use on a ram.

Christa Hartsook 12:43
Okay, sounds good. Let's say we're in the market for a new ram then what kind of characteristics or EPDs should we really be looking for?

Amy Powell 12:54
Well, EPDs, we actually don't have EPDs in sheep. Those are very common in beef, cattle and swine. But what we do have are called EBVs, which are estimated breeding values. And they are measurements of heritable traits that can be tracked and measured. They're a little different from an EPD and that the EBV is a value on that animal. Whereas EPDs are more of an estimate of what we think that animal will produce. And National Sheep Improvement Program or NSIP is actually the group that offers EBVs on animals and so you can sign a flock up and they will correlate and do all the statistical measurements based on the records that you give them on those animals and so you can get EBVs for those animals. A lot of producers are not
part of the NSIP. So we don’t see EBVs use being used a tremendous amount yet. Hopefully one day we’ll have a lot more flocks on that program. And you can search the NSIP database if you’re looking for a specific ram that has some traits that you are very interested in and you can search just for those traits and kind of find some producers out there who have a ram that might fit your needs. But as far as going out and purchasing a ram other than phenotype and you know what you want and you know you want one that has good feet and legs when it’s level rumped, heavy muscled. But I would ask a lot of questions of the producer was the ram born a twin was, he a single, was he raised a twin or single? Those twinning and single are not necessarily heritable, but it gives you some indication of how the animal grew. And weaning rates, weaning weights can be heritable birth weights are heritable. nutrition plays a role in that but ask a lot of questions of the person that you’re purchasing that ram from. Find out a little bit about the history of the the ewe and the ram that he is out of. And if he has bred ewes find out what those lamps look like if you’re buying an older ram that has has been used Some ask to see some of those lambs that he has produced. And that will give you a really good idea of what he is capable of doing and what he can do for your flock. But those are some things that I would encourage producers to do if they’re looking to purchase a ram.

Christa Hartsook 15:15
That makes great sense, Amy, I can imagine we’ve got a lot of people out there who are on very small acreages and might be interested in just starting a very small scale, breeding flock. So obviously, this conversation today about getting into the breeding season is going to be very important to them. But if they’re really looking to just get started in that, what’s some advice you would give them?

Amy Powell 15:40
I think that the first thing I would do is figure out what your goals are. What are you wanting the end product to be? Are you hoping to provide freezer lambs for your community? Are you wanting to have your children show sheep? Are you interested in wool? Are you wanting to sell a fleeces to hand spinners or do something yourself? Or maybe you want to sell artisan soaps or sheep cheese with the milk from the sheep. So all of those things are important factors to consider when you’re deciding what type of sheep you want to raise, because there’s over 200 known breeds of sheep here in the United States, and it can be a daunting task to determine which one you really want to start with. And then also look at your facilities and the time that you have on hand to dedicate to raising the sheep. Keeping in mind that it’s important that we have fences and structures that keep our animals in, but also keep predators out. Sheep are prey animals, and lots of dogs and coyotes and other things can sometimes destroy your flock. So you want to make sure that you have the structures in place to make sure that you can keep your sheep safe, and raise them in a way that is best for their welfare. And then once you’ve determined all of that, I would encourage you to visit the American Sheep Industry website. They are our commodity organization for the sheep industry. And they have a wealth of information on there about everything you need to know on raising sheep. In addition to that, we also have the Iowa Sheep Industry Association, and that can connect you with local producers here in the state of Iowa, that can help you make some decisions and get some information about raising sheep.
Christa Hartsook 17:25
That sounds great. Um, Amy, one thing I really wanted to make sure that our listeners were aware of was the USDA e Identification Program. Can you tell us a little bit more about that.

Amy Powell 17:37
So this scrapie ID program, I believe, was started in the early 2000s. And the goal is to eradicate scrapie, and make the United States a scrapie free country. And the goal was by 2017. And we're very close to doing that. For those of you that don't know who's what scrapie is, it's a fatal degenerative disease that affects the central nervous system of sheep, and goats, and there is no cure for it. It is genetic sheep can carry the scrapey codon in their genes. And so by identifying those and eradicating them out of the herd, then our goal is that we will not have scrapie anymore. And my understanding is that since we have started this program, the incidences of scrapey has gone down by 99%. And in 2017, there were no new cases identified. However, with that being said, it is very important that we continue to use the scrapie ID program and enroll our flocks in it and make sure that we are diligent about keeping scrapie out of our flocks. The first thing you need to do, of course, is get a premise ID and that can be done through idles here in Iowa. And the major reason for identifying your premise is, you know, in the event of a major animal disease outbreak, it's really important that we know where all the animals are. And that's for your safety as well as the safety of our consumers. So once you have your premise ID, it is free to get one of those and it's a form that you can fill out online, then you can order scrapie tags. Now USDA will provide you a scrapie tag and that tag will have your premise ID number and an identification number for the sheep. They will give you some for free, but they're metal tags. And my experience with metal tags is that sometimes they cause ear infections. So I would encourage you to spend a little extra money and go with one of the vendors that provides a plastic tag, and those are much easier to use and they don't fall out and they in my experience have not caused too many ear infections. And you just put those in your sheep. Now all sheep need to have a scrapie tag except those that are under 18 months of age and are headed into the harvest market. And then castrated males under 18 months of age wouldn't need a scrapie tag either. However, our family just as soon as they're born we stick a scrapie tag and everything. Just makes it easier and we always know that they have one.

Christa Hartsook 20:05
That makes great sense. Amy, is there anything else that we really need to think about or be aware of as we're heading into the breeding season here?

Amy Powell 20:14
I think we've pretty much covered everything. It's, this is always an exciting time to get those ewes up and see what's going to happen. And I always enjoy at the end of the day going out and marking down all the numbers of the ewes that have gotten bred. And knowing that five months from now I'll have a barn full of baby lambs. So it's an exciting time of year and an important time of year. And just don't forget your ram. He's important too, and make sure that they are ready to go.
Christa Hartsook  20:42
All right, Amy, thanks so much for being on the show today. We appreciate it.

Amy Powell  20:45
You're welcome. Thanks for having me.