## Cattle HQ - Preparing for the Breeding Season

## Season 1, Episode 13

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**Olivia Amundson:** Welcome back to another episode of cattle HQ I'm your host Olivia Amundson here with my colleague Kiernan Brandt. Today, we are here with John Moes and Dr. George Perry and we're going to talk a little bit about preparing for the breeding season so, John and Dr. Perry, I will let you both introduce yourself and I'll probably start with Dr. Perry.

**Dr. George Perry:** Thanks Olivia. So I'm now at Texas A&M Agri Life at the research center in Overton Texas. Out at the research Center we actually maintain three separate herds that we pretty much do year around calving based upon the herd there in, but we do everything from reproduction to production, all the way through collecting feedlot data here, and so my program and the situation here allows me to really focus on beef cattle management and things that impact production efficiency. Before that I was at South Dakota State for 17 years and so that's where John and I got to know each other.

**Olivia Amundson:** And you were also my graduate advisor let's make sure to tell our crowd that. So my wonderful mentor is here with us today. John why don't you give us a brief introduction as well.

**John Moes:** I guess John Moes, owner and operator with my son Bryan of Moes feedlot up here. We got a cow calf operation of 300 head plus we've got feedlot of 2000 head that we trying custom feed under Monoslope barns, we keep busy. When you start looking at this reproduction and everything we started way back in 2003 when George said he was 17 years at SDSU. When he started in 2003 he come up to a meeting and Watertown and was talking on reproduction and we got to talking and he was looking for some herds in the area, other than just the two herds at Antelope and the one down at SDSU in Brookings to taking come out and have some real life experiences on just a normal setting because at that time they always said, oh geez they've got these college cattle and they got them so fine-tuned this way and that way. This way they got really live actual of them and that year, it was a noon dinner and then afterwards, he talked about synchronizing heifers. He was trying to get together a study on a group of heifers. If you take and send half of them to grass, the first of May and the other half, you leave in the feedlot until after they were bred and then turn them out and just see what your conception rate was see if it'd be the same. Well, we did that on the first group of heifers back in 2003, the summer of 2003, and we found where, if you once you breed them and throw them right out on grass, let them be naive compared to the ones that were on grass our conception rate was less because they had to reformulate their nutrition plan. So when we talked about nutrition and everything on this it start way back almost two decades ago on that. So it really in we've been going from then on we did, I had my brother in law's cattle that I bring in here and he bring them in March, we would breed them in May, and they would take and bring them here two months before and we put them on a diet of grass alfalfa mix hay and five pounds of corn plus good mineral program. As soon as we bred them we started after we learned from this episode, we would take them heifers and they would take them home as soon as we AI’d them, heat detect for 72 hours and we would take them and put them on grass, but they would take and top dress corn at five pounds a day to them for the next two weeks and we started seeing no substantial difference in pregnancy rates.

**Olivia Amundson:** Yeah, John, that was good that has me wanting to go in like five different directions, right now. You said something that you and Dr. Perry, have been working together for about two decades now um how has things changed on your operation, since you started working with Dr. Perry.

**John Moes:** Well, if I can bring you a little story up when we first started coming we used to always say he come once a year and preg check in the fall and ultrasound them and we just started with the bred heifers and the first calvers and now we're breeding every cow AI once in different groups with different protocols. But when that first started after we started doing this, I kind of laugh my wife would we'd have dinner for George when he was up here and my wife would say we need Christmas presents, it's usually around Christmas time, so how many open cows, do we have for Christmas. So, and it started with that well, then it excelled from that to the point where, okay, now we can work to the point where we got these cows so fine-tuned that we don't start selling cows because they're open we start selling cows for disposition, utters, feet, and carcass data. We started way back when and the last seven, eight years it's been 6,7,8 years ago we were down in Sioux Falls and George remember this, I was one of the speakers on it, as far as we had 46 to 50% CAB’s loads of cattle going out and it's just changed with what we've been doing. We're getting better herd health now like I said, instead of selling them for not being bred we're selling for disposition and we've got cows that are the oldest cows 15-16 years old and she's still either AI’d or first bull bred, they're still in the herd.

**Olivia Amundson:** And I think you've said a lot, or brought a lot of concepts within that statement there so, you're breeding your cows you're seeing it an increase in herd health you're able to cull cows based on disposition and different things like that maybe structural soundness. Things that you weren't necessarily able to do before even selling you know, on a grid instead of selling at the sale barn. So I guess maybe I'll turn the conversation over to Dr. Perry and I guess, can you elaborate a little bit more on using some of these reproductive technologies in terms of some of the production efficiency on a commercial heard.

**Dr. George Perry:** Well yeah and that's one of the things when we first started working with John, oh after the first three or four years, we really had a discussion that really came out, and you know my philosophy on things is any of the research we do should be practically applicable. I like seeing what we're doing that we can put it in production and how it impacts things and as john started saying once you get reproduction, where you want it up in the high levels, then management really takes over so now, instead of saying I need to maintain my cow herd to pay my bills, now it's kind of, that cow had the poorest performing calf the past two years, she can go, because I have somebody else that can take her place and do better and that's actually been one of the funnest things and working with john over the past two decades is seeing that and seeing how going from just breeding replacement heifers and having them enter the herd to now only keeping replacement heifers that are out of AI sires and seeing the sire’s that okay disposition was a little bit different so they didn't stay as long but, longevity and a herd and being able to manage that herd as a group, because you do have good tight reproductive synchrony in them, allows you the opportunity to make management decisions that affect profitability.

**Kiernan Brandt:** Well, and we've spent quite a bit of time up at John and Bryan’s place and they are incredibly in touch with that side of things, and really, this is just a true testament to the extent of a functional and well established relationship with Extension to that community of producers that we are trying to reach. You know I think it's ridiculously cool that you guys have been doing this for almost 20 years now and to see how see how far this is really transitioned. And I mean every time I get the opportunity to go up and go through the feedlot I mean that's one of the most that's one of the most exciting parts of my job is getting to walk through with incredibly dialed in, savvy producers that have all of these foundational components truly dialed in to the extent, where we can get incredibly nitpicky and start looking at those drivers of profitability like carcass quality were, really advanced nutritional management and being really dialed in on that front can be super beneficial. You know, Dr. Perry I'd love to just hear your thoughts, you know when I started in Extension and Olivia's used to hearing this running around South Dakota we hear oftentimes how Extension is the best kept secret in South Dakota and I'm sure you've heard that in Texas, too, but maybe just talk a little bit about the potential for collaboration that you've been able to see over your tenure as an Extension research professional.

**Dr. George Perry:** Well, for me, I get benefits both ways, and so I see the benefits on the Extension side and the direct impacts on the beef industry. But as you also mentioned, I have a large research appointment and I'm interested in what we can do to make things better, and so we're better to learn from then, working with producers and seeing what is impacting them and what changes we need to learn about to help make things better, but that relationship is very important. And that's one of the things with John when we first started doing things and that there was never a day we showed up that there weren't students from Lake Area Tech, the neighbors, I never knew who was going to be there when we pulled up and most of the time they were questioning John on why in the world, are you doing this? And as you see, over the years how he's been able to demonstrate what we do and what we talked about in Extension and the proponents like John that can come out and tell the neighbors, hey, here's the benefit of this here's what, look at how my herd has changed and that's the exponential growth of Extension because we can't get out and talk to everybody. And so, getting out and having it really is a two way street, when you have the high quality producers that you can work with that both programs gain from it and that's where we see the real growth and benefits to the industry and that's what extension is supposed to be.

**John Moes:** One thing Olivia kind of on the edge. When he talks about high quality producers, we were just a commercial herd when we started. We bought cows. We started AI’ing probably 25 years ago and it just excelled and we didn't use a lot of the top, top name bulls. I was looking for when I first started with growth bulls and looking at yearling weights of over 120 to 140, and it never ever hurt us on doing that situation. Our cow herd or calves are all, their right in the carcass quality is there. I guess one thing like when George talks about getting out and the reason why we started was I always says we're state of the art anymore and I'm not trying to brag it up or anything but we take the initiative to we've got Performance Beef Program in here now, Zoetis bought that Performance Beef Program a year ago here, and they've got health side on it now. Now just seeing this last week where Performance Beef and on the health side they're going to get a Cow/Calf program there for the Cow/Calf that Zoetis is putting together on this Performance Beef. And it's all that that we use in the feedlot and it's just trickling down now to the Cow/Calf side, where we can start using that for our data and just seeing the rate of gain on these caves and seeing what what's doing. When we first started this way back in the early 2000s we had Successful Farmer always come out and they always had these articles starting to synchronize and can do some of this stuff. And a lot of that stuff was through Extension that brought that to the Successful Farmer the Farm Journal and you read some of that and, like I've always told Bryan I says, if we don't use it we're going to lose it. And he's gotten, to the point where he's more tech savvy than I am and to get this stuff going on, but I’ve got to look at them to find the numbers, when what numbers I want and we've found where a lot of this just keeps filtering up and it's not going backwards. So it's a lot of it if you don't use this technology, and if we can get it out here, we've got it in real life hands and like I said, we were just a commercial herd we're still commercial herd, we're not registered, but these cattle can just about be registered so that's where we're going.

**Olivia Amundson:** Yeah, John I mean being in Extension myself, and I think Kiernan can even agree with this, you know we both not only enjoy going to your place, but I feel like we learned something new, every time we are there and it's those things that we learned that we can bring to our other producers. Where you've already kind of tested and proven some of these things that you're doing, and so we do we really appreciate you, you know stepping out and trying some of these things to continue moving forward, because without you then I feel like that needle never turns. With that, I think I think we should kind of talk about you know we've kind of just dabbled in the importance of preparing for the breeding season and we kind of got quick into that conversation without really talking about how you prepare for your breeding season. So you use estrous synchronization, what kind of protocol are you using. There's different estrous synchronization protocols out there and I'll let Dr. Perry, maybe get into the weeds about that here in a little bit, but John, what do you use and why do you prefer using that type of a protocol.

**John Moes:** I guess the last two or three years with the testing and stuff and we've always been using the 7 day CIDR and then different protocols with different doses of GNRH in between along with the Lutalyse and some of that's been working. One thing I've noticed from in the past we've always been, and George probably would laugh at some of this, but we, the last year and a half or the last two years instead of 72 hours going in and time breeding I've taken it on to my initiative to wait on those cows that aren't showing here at 72 hours and I've been breeding them at 78 hours, instead of in the morning, been breeding them that afternoon and then given a shot at GNRH, and then like this last year we're getting another 3-4% more bred in and we're heat detecting, we have not until this last year, we have not used a Timed AI (TAI). Now, this year we used TAI, is it nice, yes, in two hours you can breed 100 cows, but you know what, from what I can see, we were at 62 to 63% on TAI. Just for an example, this year and I can see, we can get five we can almost get almost up to 10% more by heat detecting. People can take it for what it's worth but for us 10% on 300 cows that's 30 head calves that are going to calf in day one. And you take the 30 head of calves out of 300 in day one, you got 20 days that's 60 pounds a calf at two pounds a day or three pounds on feed. Sixty pounds or even 40 pounds and you start looking at that you can bring them up almost a half a month sooner to be done on the market and we're looking we're finishing all of our calves last 5,6,7 years now and it's, to the point where it really shows value on us to get them to all calve up there at day one, that much more and then at one nice thing about it is that day 23 we've got probably 80% done calving in 23-24 days and people say why are you doing this and, like George said it very well here, we've got people that come here and help us and people well, jeez, look at all the extra work you got going on, look at what you're doing and they keep saying this and it's paying off in the long run and it's not only helping us it's helping Extension and George as far as there's a lot of protocols in these AI magazines that are from the Extension, people don't realize who's done these numbers who's done these trials and that's where it's coming from us Extensions done all these trials and the colleges, have helped with that, as far as to get it out there on a commercial basis.

**Olivia Amundson:** Yeah so let's talk about that a little bit so like you said Extension researchers have really I mean it's going on to places like yours, where they've gotten all these numbers. And like you said you prefer the heat detection and AI but there's also you know strict TAI. Dr. Perry do you kind of want to elaborate on as a researcher standpoint what some of these different protocols mean and how they can affect producers, I guess differently or...

**Dr. George Perry:** So yeah, one of the questions and I get phone calls and everything all the time that there's tell me what protocol I should use and really, especially if I'm at a meeting or that or somebody just calls me it's kind of that's the worst question to ask. And people will look at me when I answer that question that way and it's kind of we have protocols that work we have protocols that work well, but to tell you what's going to work, the best on your operation, I need to know what you're doing and what your operations like and so as John pointed out, and all the work we've done over the years. Almost all of it other than the past couple of years has been with heat detection. In a herd that does a tremendous job heat detecting and there are several levels that I've worked with. If you switch to a Fixed TAI you don't see any improvement. And actually, just like John pointed out you're going to see a little bit of reduction Herds that don't put in the effort to do a good job, detecting estrus I can show you herds that have a 10% improvement by going to Fixed TAI because they didn't put in the effort to do heat detection. And so you have to know those situations, and you know, a cow in standing he is always going to have the best fertility, because she is there she's ready to be bred and so when I talk about synchronization protocols, I talk more about understanding what they're doing. And when we look at the research and stuff we're doing its understanding what might get us better control a follicular growth or what get us better timing on things and not necessarily looking at just a Fixed TAI. But the project we're involved with this year is actually comparing to Fixed TAI protocols. They go about synchronizing in totally opposite ways. One of them tries to get rid of the Corpus Luteum at the start of the protocol to get better response to GNRH, the other one tries to induce a persistent follicle. And so, even though one of the protocols has been around for a while the other ones newer, we don't know the best situation they work in. And one of the things we're learning is where we've got herds all across the country that are supplying data for it. When we look at that, there's different situations and we're about halfway through the study, but when we look at that, if the cow has started cycling if she's in good body condition, good days postpartum, if she cycling all of those things and it's going to be interesting to see these different methods. Where does one work better than the other and it's understanding those things and it's getting as you pointed out, Olivia the herds, we can get the data back from, to know postpartum interval cyclicity status, you know that'll let us take the blood samples to determine cyclicity, that we know body condition, things like that that did we can come through and say, okay, and for making recommendations. If you're in a herd that is not in as good a cyclicity or body condition isn't as good, this protocol might be better than that one. And so anything with any of them and with synchronization, synchronization is a tool we can use, and it will never compensate for bad management. A herd that has good overall management will have good success with synchronization, herds with bad management, you can do the best protocol, there is and it's still going to turn out bad. And so it's literally a tool we can utilize, and in good herds it works well, but you have that given take. The time for estrous detection versus a Fixed TAI, there's give and take on time management, there's given take on labor, and we need to weigh all of those things into the different operations to figure out what's going to work, the best for you.

**John Moes:** One thing to bring up Olivia like I said, this year we TAI’d. One thing that I would like to bring up on that is some of these people that have never done anything and they TAI, they might, and we're looking to see right now, when they come in 21 days later let's see what the conception rate is there, it might be in 23 days. Some of these other ones, just like George said we're, to the point where we know what our statistics are for the last 20 years. And we're trying to better ourselves and, like I said I could see that we shot herself in the foot by just by TAI’ing but we're still going to maybe be 21 days off, and I think our conception rate on the first bull bred I think was pretty high, if I remember right. We don't have all the statistics back from that this year, but when we start calving in March and we get the middle of April, when them start coming I think we're going to see that we're only missed that 10% or 5% or 6% were only probably 21 days later. Where some of these herds, if they're on a TAI like that and go throw bulls in they pry think, that'd be heaven for them to have that many calves in 20-24 days. So it, like George said it all depends on the situation but we've been in it long enough that we can see what we're doing and what works, and I think he said it very well as far as getting to heat detect and if we heat detect very well, we go out there and sit at night at 9-930pm at night and where they're at 6am in the morning and we see those ones that are starting to come around and, it all depends on how you're going to do that, and then, when do you breed them if you breed them that next morning right away, or if your breed them that night. So you get them bred and then what we do, one thing is for getting them in kicked in gear is, we take the first hundred cows that calve, they go on the first group, well there's part of postpartum, they're the first ones that get bred every year, which makes a lot of difference. The last ones to calve are the last ones to get bred. You're postpartum dates, you're not throwing where you get these other herds they might run the whole herd, oh we're going to breed this day, well, some of them, probably only postpartum 25 days or not even that. Were ours are all probably 90 days postpartum before we breed them, so it makes a difference there to on how we set them up, but we got them in groups of 100 well that's what we breed is 100 head, so we can just go get that hundred cows, we don't have gotten sort off the 300 head oh geez which ones were they that makes a lot of different still.

**Olivia Amundson:** You just made me think of something, John after you said you break them up into three groups of 100 because I think a lot of times people get really intimidated with estrous synchronization because they have this thought that all their cows are going to calve on the same day and, of course, that we all know that that's not necessarily the case, but I like how you run your operation. So you break your 300 cows up into three groups of 100 and then you synchronize them in a way that you synchronize and then breed one week, you breed the second group the next week and the third group the next week, am I right.

**John Moes:** Correct and then, when we bring them in the first two synchronized groups, if we got 63% we're going to have 125 head of cows that are going to calve out in seven days, say. Well, they might start five, six, days early and it'll be five days late, so there's a 10 day period that you're going to have 60 calves from that first group and then that second group will be starting and we just never ever stopped. You got them but you're almost a 10 day period five to six days early and five days after you breed them on the due date. Yeah you're not going to calve 60 head in one day you breed 100 if you get 70% you're going to have 70 calves you're going to have 10 a day, yeah we have some days will have up to 20 a day is our biggest day with doing this, but it's, it’s just you got enough room and it works so that's one of the strategies that we use.

**Olivia Amundson:** And I think that's good and that's a really good point to make, because even though this thought that all these cows are going to calve on one specific day and using estrous synchronization as a tool, again if we don't have the resources, the labor available, you know that estrous synchronization, like Dr. Perry said is not going to compensate for poor management. And if we don't have that labor available that time that we synchronize our cows and then all of a sudden, we may be, are we do happen to calve 20 cows or, have 20 cows that calve at once, we're really just shooting ourselves in the foot anyway. So there's multiple there's multiple facets to all of this and there's multiple ways to skin a cat but.

**John Moes:** All kinds of tools in the toolbox it just depends on how you want to use them.

**Kiernan Brandt:** Well, I think facilities, I mean are obviously going to be a really important part of all this and factoring into this equation and deciding on a protocol and a lot of those things, I mean. Obviously, if you're in northern Montana, and your range calving out in really remote desolate country, you may have to factor in some additional considerations but, you know, I think, just as a general theme, the more information that we can gather and the more you know consolidated and kind of efficiently, we can package these things to occur around timely events that we're equipped for, ready for that can really prevent a lot of wrecks from ever occurring in the first place and setting us up for a lot more potential success down the road.

**John Moes:** Oh, one thing I can see Kiernan is you've got to have a facilities, where you can take that first hundred head of cows, they calve the middle of March. You got to have a place, a windbreak and some shelters for them calves, where you can take that hundred cows and get rid of that group. You got to have enough paddocks or places that you can put another hundred head of cows and then the last 60 cows our heifers go elsewhere. We need four different places to group them and we've got it set up where we can just walk them around this place in four or five different 50 acre pastures that it takes facilities you got to really look at what you've got it and utilize it and we built a couple more paddocks. Just because that this summer, it was chaos we run these cows through eight times, George with their new protocol that they had they want to bleed them twice almost a month ahead of breeding and then bring them back in. Every week we had 200 head of cows to run through in four different groups, and it was chaos, but it worked. And we got to the point, everybody says that oh geez, the more you run them through the wilder they get. It is not true, our cows, the last two, three times they come through they come in and hit the Silencer chute, they walk in and they don't have to get up go they got to go another inch before you get hit shut the headlock and they just stand there and they get a lot calmer we've got a nice bunch of cows because of it.

**Olivia Amundson:** Yeah I think both Kiernan and I can attest to that we were, we were at your place a few times this last year working cows.

**Olivia Amundson:** We’ll be ending our conversation with Dr. Perry and John Moes for this podcast, but join us for our next episode as Dr. Perry and John share more on preparing for the breeding season. Thank you to Dr. Perry for joining us from Overton TX and John Moes from Moes Feedlot llc in Flourance SD and thank YOU for listening to Cattle HQ brought to you by sdsu extension, headquarters for all things beef. Visit extension.sdstate.edu for the latest beef information.

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