## National Beef Quality Audit:

## Sydni Borders

## Season 1, Episode 36

[Intro music]

**Kiernan Brandt :**

**[Music] Welcome to Cattle HQ, a podcast from industry experts and progressive producers discussing cutting-edge info about the cow/calf sector to keep cattlemen and women in the know and positively affect their bottom line.**

**Robin Salverson:**

Welcome to Cattle HQ, brought to you by South Dakota State University Extension. I am Robin Salverson, cow/calf field specialist based out of Lemmon, and will be your host for this episode in which we’ll be discussing the 2022 Beef Quality Audit. I am excited to have Sydni Borders on this episode. Sydni was heavily involved in the 2022 Beef Quality Audit, so I’m excited about what she has to share with us today. Sydni, to just kick off this episode, will you share a little bit about yourself and how you were involved in the Beef Quality Audit in 2022?

**Sydni Borders:**

Yes, ma’am. My name is Sydni Borders. I am from Texas originally and I’m here at South Dakota State University now pursuing a PhD. My story starts with my master’s degree. Actually, I attended Texas A&M University and got my bachelor’s there. I decided school was so much fun that I pursued a master’s in meat science. Through that, I was actually one of the lead researchers in the National Beef Quality Audit of 2022. My baby, or my sole responsibility, was specifically the cow and bull sector of the National Beef Quality Audit. I’ve done the trips and I’ve been there feet on the ground for the entire audit, and so it’s really cool to be able to, now that it’s done, talk about it and share it with others.

**Robin Salverson:**

Well, we are excited you’re joining us because sometimes we don’t always get the person that’s boot on the grounds, and you’re the person we want to talk to. I know the audit is actually held about every four to five years. I know it varies a little bit. Can you share some history about the audit and really why was it established?

**Sydni Borders:**

Right. The first ever National Beef Quality Audit was actually conducted in 1991. It only looked at the fed steer and heifer side of things. The first market cow and bull audit actually wasn’t conducted until 1994, and that’s because we realized that “Hey, a large portion of the US beef industry does come from market cows and bulls,” and that’s something that a lot of people don’t realize even to this day. From there, as you said, they’ve been conducted around approximately every five years. Now, with the pandemic this year, we weren’t quite able to follow that trend because we had a hard time getting into plants and things of that nature, but basically, the whole purpose of the National Beef Quality Audit is to monitor what we’re marketing. You can’t manage what you don’t monitor. We do this every five years and we do it nationally just to take a snapshot of the US beef industry and what it’s looking like and what improvements we can make and what improvements we have made to see where we’ve been and where we’re going in order to continue to produce a safe wholesome product that our consumers love.

**Robin Salverson:**

You just mentioned there is the fed cattle side of things, there’s the cow and bull sector side of things.

**Sydni Borders:**

Yes.

**Robin Salverson:**

Can you share a bit more on the details of what an audit includes? Because I know there’s different phases if you’d like to call it that.

**Sydni Borders:**

Yes, of course. The National Beef Quality Audit actually has three phases. Phase one are what we call industry interviews. That was conducted by Colorado State. They were the main leaders on that one where they went and took the survey and it’s more on the retailer side of things. They interviewed anywhere from packers to government trade organizations to retailers, restaurant owners, things of that nature, and just saw what their perception was of the US Beef Industry. Then phase two is the part that I was heavily involved in and that was the part that Texas A&M was in charge of, and that is the in-plant portion of the audit. That’s where we go into the plants, we collect data on the cattle that are actually coming through the plants and looking for those different types of quality defects and things of that nature. So, that within itself has three sperate sectors. Within phase two, there’s the fed side, so where you look at the fed steer and heifer. Then a part of that, which is the second portion, is the instrument grading. A lot of beef these days are being graded with cameras, and so it’s collecting the data from the cameras that the beef is being graded with in addition to go ahead and doing the old-school, as some like to call it, visual grading. Then the third part of that is the market cow and bull sector. It’s an audit of all the market cows and bulls that are coming in. Then the last phase of the National Beef Quality Audit is actually what we call strategy section. It’s where we meet at NCBA headquarters in Denver and we take everything that we’ve learned, everything that they gathered from phase one and phase two, and we meet with industry stakeholders, leaders in the industry, producers, and we try to pinpoint “This is what we’ve seen and this is what’s causing it, so this is how we’re going to fix it.” That’s a lot but that’s – it is a big project, so…

**Robin Salverson:**

It is a big project. It takes a lot of time and effort. That’s why it’s approximately every five years, right?

**Sydni Borders:** Right.

**Robin Salverson:**

It just doesn’t happen overnight. I want to dive a bit more into the phase two where you said it’s in-plant. How many plants did you guys actually audit for let’s say the fed heifer and steer side? How many plants do you audit during that timeframe?

**Sydni Borders:**

Okay. There’s some overlap because some plants actually do both bulls and/or cow and bull and fed and steer, but for the fed and steer side solely we did 22 plants, and that’s across the nation, and it’s actually really cool because it is a collaborative effort, and so there were I believe 12 collaborating universities, including South Dakota State, that helped collect data all across the nation from these different plants.

**Robin Salverson:**

Wow. That’s a lot of plants, a lot of data.

**Sydni Borders:**

Yes**.**

**Robin Salverson:**

You got to be involved with, I’m assuming also, the analysis of that data.

**Sydni Borders:**

Yes.

**Robin Salverson:**

I think that might be what we’ll jump into next. Can you share some of the things that were noticed or challenges that were shared or seen in the 2022 Beef Quality Audit?

**Sydni Borders:**

Yes. There are a lot of things that are covered in the National Beef Quality Audit. Just to hit some high points, one thing that continues to be an issue that we’re seeing a lot of is bruising. It’s hard to pinpoint exactly what’s causing the bruising, and this is observed from the fed steer and heifer side as well as the market cow and bull. Some people can attribute it to cattle handling methods. It can be attributed to facility design. It could just be attributed to genetics. Our cattle tend to be getting bigger, and some were using older facilities, and so they’re too big for some of these things or hitting their backs on things. One thing that I noticed with my boots on the ground was that especially on loading and unloading trailers in those spots, they have different decks and sometimes as the cattle are running out or into a trailer, they’ll jump up and they’ll scrape their back on that door, or they’ll scrape their back on the deck and then they’ll do the same thing at the harvest facility. One thing that we did notice with the bruising that’s not actually reflected in the data because of the way that the data was collected was that a lot of the bruising is actually located right on the spine, on the topline of those animals, which was a big issue from the meat side of things because when you have bruises on a carcass, those things have to be trimmed out. If you’re trimming out right along that topline, that’s where your ribeye sits, and so that becomes a huge concern.

**Robin Salverson:**

That is a huge concern because that is one of our highest quality meat that, obviously, is the highest value, and so that is a big issue. I know we had a conversation about that in one of our earlier meetings about how hopefully those are the things you noticed was along the backline, and obviously, that’s probably through transport as you said because I think you had mentioned to me, too, that, and please correct me if I’m wrong, that a lot of that bruising probably is being done within 24 to 48 hours prior to slaughter. Is that correct?

**Sydni Borders:**

Yes. Most of the bruises observed in the quality audit are fresh bruises, just like when humans get bruised, cattle get bruised, and as a bruise ages, it gets more yellow in color. The bruises that were observed on the kill floor were fresh. So, they had to occur within 48 to 72 hours prior to slaughter.

**Robin Salverson:**

Seventy-two hours. Wow. What are – to go back just a little bit, so that is one of the things you’ve noticed in this 2022 audit. As you look back in history, so you said it started in 1991 with the fed heifers and steers and then on the cull – or, excuse me, market bulls and cows, it started in 1994, which I did not know that.

**Sydni Borders:**

Yes.

**Robin Salverson:**

Actually, that’s something I did not know. From things that you found in history, are there things that are starting to reoccur again? In the earlier days, we noticed a lot of more carcass issues and blemishes and fat and injection site lesions and things like that. As we’ve moved forward, we’re looking more, as you’ve done these audits, the audits are showing even more like animal welfare and where those animals are raised and how they’re raised.

**Sydni Borders:**

Yes.

**Robin Salverson:**

So, it’s transitioning from the carcass to how - animal welfare. Obviously, I think there’s still some things that happened in 1991 that are unfortunately coming back around. Is that true?

**Sydni Borders:**

Yes, that’s kind of true. Historically, there have been some mobility issues, and especially on the fed steer and heifer side, it’s more related to them being too big for their bone structure, whereas like on the cow and bull side, it’s more seen as like they’re older animals, so they’re just not as mobile as they used to be. We’ve seen we still had a very high percentage of animals that came through with good mobility scores, so I don’t want to discredit the industry anywhere for that, but that is something that we do need to keep in mind of because even though we did see a very high percentage it was still a decreased percentage from what was observed in 2016. Another thing that’s come up more on the retail side of things is the food safety issue of finding foreign objects in food. So, all of the plants that were surveyed, this is actually a new thing that we did in the audit this year is where we conducted a food safety survey just to pinpoint what the plants are seeing specifically as they pertain to foreign objects because foreign objects are something that if that’s found in meat that that makes national news and then we as an industry we all look bad. So, all of the plants that we audited reported finding foreign objects specifically birdshot, buckshot, any type of shot, and that was an issue. Even though it wasn’t included in the 1991 audits, that was an issue that did plague the industry around the 19, late 1990s/early 2000’s, if I remember back right. It’s before my time but…

**Robin Salverson:**

I hate to say that that was my time, so yes, you are right. [Laughter]

**Sydni Borders:**

Yes. Right.

**Robin Salverson:**

The early 2000s, yes, buckshot, birdshot was a concern.

**Sydni Borders:**

**Yes.**

**Robin Salverson:**

So, that just totally fascinates me that it’s back in our audit in 2022.

**Sydni Borders:**

Right. Well, and that just could be a reflection of this is the first year that we’ve looked at it, but all of the plants reporting findings of buckshot, like that’s not good. That’s an issue. So, that’s just something, those plants are implementing preventative control so that way that doesn’t end up in national news. If we can do stuff on the production side to reduce those instances even further, I mean that’s just adding more security for us as an industry and helping enhance the public perception of our products.

**Robin Salverson:**

Absolutely. That starts at the cow/calf level. Right?

**Sydni Borders:**

Yes. Yes, ma’am.

**Robin Salverson:**

I also know one of the findings in the 2022 audit was, this is on the market cow side of things, so - is full udders.

**Sydni Borders:**

Yes.

**Robin Salverson:**

Can you share more on what you saw when it came to cows with full udders coming through the pants, and what does that mean?

**Sydni Borders:**

Yes, absolutely. A full udder is considered a defect, or it was for the audit because it actually poses a problem at the plant level. One, it’s a welfare issue because if you’ve seen a cow with a full udder, especially a dairy cow, they look like they’re in pain. It could cause mobility issues because they have a hard time walking when their bag is that full. From the plant standpoint of things, that has to be removed. What a lot of people don’t realize is that there is something in the food safety side of meat science that’s called FMI. Plants has a zero tolerance for FMI. FMI stands for feces, milk, or ingesta. If any of those things end up on a carcass, that’s deemed as contamination and it has to be trimmed away. Because of that, those full bags, they spew with the cows just walking. When you’re trying to cut it off of an animal, I mean it becomes a huge issue because, one, it’s massive, it’s hard to get off, it’s not an easy task, and then, two, you risk that chance of contamination. It’s just not ideal for both the cow and the packer. A lot of producers don’t realize that it’s a contaminant, milk is a contaminant, and I don’t know the full story on all those cows but we saw about 75% of all cows coming through had a full udder at the time of harvest, and I don’t know if that’s because they were dropped off the night before and they stood there all day or if the producer waited until the afternoon to take her to the plant. Either way, she was marketed during lactation. That’s something that we want to try to avoid. Additionally, as that ties in, I know, I’m sorry, I’m getting a longwinded here, but…

**Robin Salverson:**

No, keep on going. [Laughter]

**Sydni Borders:**

Okay. As that ties in the current audit on the market cow and bull side saw a decrease in body condition, a pretty significant decrease in body condition. We’re coming off of the year that was drought-inflicted, so that was probably why, but also on top of that, if a cow’s in lactation, she’s not gaining condition and that’s probably why we saw such poor body condition, too.

**Robin Salverson:**

That makes a lot of sense there when you put those two together, if you had low body condition score and a lot of cows coming in with full udders, you’re absolutely right, they’re not going during lactation. Gaining weight is very challenging.

**Sydni Borders:**

Right.

**Robin Salverson:**

Not impossible but very challenging.

**Sydni Borders:**

Right**.**

**Robin Salverson:**

I asked the question about how many plants were in the fed steer and heifer side, and you said approximately 22 with some overlap with the market cow and bull, but when it comes to the market cow and bull, how many plants did you actually audit for that?

**Sydni Borders:**

That was 20 plants.

**Robin Salverson:**

Twenty plants.

**Sydni Borders:**

Yes, ma’am.

**Robin Salverson:**

Wow. Again, a lot of data.

**Sydni Borders:**

Yes**.**

**Robin Salverson:**

It just blows my mind. You had mentioned earlier in the podcast, too, of this episode that a lot of people don’t understand or realize the percentage of the market cows and bulls that actually enter the retail space per se that it’s actually showing up on plates in people’s restaurants. What percentage is that?

**Sydni Borders:**

The exact percent of market cows and bulls being killed or [Audio Gap]?

**Robin Salverson:**

Yes, that are being killed and are – well, yes, I guess basically if they’re being killed, right, I should explain myself better here.

**Sydni Borders:**

Right.

**Robin Salverson:**

Yes. What percentage of the market cows and bulls are being killed, because in reality they’re ending up on the plates on people’s kitchen tables or restaurants and things like that.

**Sydni Borders:**

Right.

**Robin Salverson:**

What percentage of it is that?

**Sydni Borders:**

Every retailer, every restaurant is different. I can’t give you a definitive answer for that. I can tell you that market cow and bull beef ends up at a lot of fast food establishments. A lot of it does get around, and a lot of people, a lot of producers even, when they market a cow or a bull they’re like, well, ground beef. That is true but these animals, especially dairy cows, grade very well actually. They marble very well. If they meet those requirements, you can see cow or bull steaks, as long as they fit the ideal visual characteristics and they’re in the right age and they grade right, there’s a potential that they can be retailed. For the most part, a lot of market cow and bull meat goes into restaurant trades. I like to say anywhere where you don’t necessarily see your steak before it’s cooked, so like cruise lines, anywhere you can get a cheap steak a lot of times is going to be probably more market cow or bull. That’s just something a lot of people don’t realize. A lot of it also gets exported. I mean we’re harvesting things like tenderloins, ribeye rolls, chuck roasts, all of these valuable cuts do come from market cows and bulls.

**Robin Salverson:**

You had mentioned the dairy side of things. Well, while you’re doing these audits, especially I’m going to probably say both in the fed cattle side of things and also the market cows and bulls, you’re also auditing dairy animals, too, right? Because that’s beef.

**Sydni Borders:**

Yes.

**Robin Salverson:**

I just wanted the listeners to understand that beef is both beef breeds and dairy breeds. It all goes to our end market of meat.

**Sydni Borders:**

Yes. That’s a great point, too. Because on the market cow and bull side of things, like most definitely, we’re going to see dairy cows that are being culled, but what a lot of people don’t realize is that fed Holstein steers, fed dairy steers do come in packing plants. We audited one packing plant in California that all they harvested was fed Holsteins. It is a huge part of our beef industry. One thing that is pretty cool is that the breed percentages, because we evaluate hide color and try to designated that to a breed, and so there’s a Holstein pattern and then there’s solid black that the researchers could designate it as, and based off of that, we saw similar cow percentages and the percentage of Holstein and the percentage of just solid black-hided cows that were coming through. Our cow herd’s remaining relatively consistent as far as breed makeup is concerned. When you look at the fed side of things, we actually saw a decrease in Holstein percentage on the fed side of things and an increase in black-hided animals. What that’s telling me or indicating to me is that beef on dairy is becoming a huge thing in the US beef industry, and so we’ve seen lots of beef on dairy crosses that have come through this year’s audit. That’s a cool reflection in the data for all of us nerds out there. [Laughter]

**Robin Salverson:**

That beef on dairy is a really, yes, becoming very popular as you listen or visit with dairy producers, the percentage of their Holsteins that are actually bred beef is quite high.

**Sydni Borders:**

Right. Yes.

**Robin Salverson:**

It’s only a select percentage that are actually bred to, let’s say, back to Holstein, so, yes, it’s very interesting. As we start wrapping up this podcast, Sydni, I just want to ask a question. Is there anything from the 2022 audit that really surprised you?

**Sydni Borders:**

Yes. I’ve talked a little bit about seeing the bruising. That was pretty interesting, and the food safety was a big shocker as well as milk, the full bags was a huge surprise to all of us. Another thing that surprised me was that actually, so we audited to see if the truck drivers were BQA certified when they were dropping off their cattle. The transportation data for both the fed and the market cow and bull side reflect that these cattle were being transported under recommended conditions. It was really cool that we got to ask that question and we found out that over 90% of the truck drivers for the fed side of things were BQA certified. A lot of the big packing plants are actually requiring that now. Whereas on the market cow and bull, it was around 63%, 64% and that’s because with the market cow and bull, it’s not just commercial truck drivers that are dropping those cows off, it’s local people. So, they might not be aware, but seeing that and seeing the strides that we’ve made since the implementation of the BQA program, Robin, you might know this better than me, but I believe BQA really started going in like the early 2000s is when it got implemented across states.

**Robin Salverson:**

About the late 90s, but yes, in that…

**Sydni Borders:**

Late 90s.

**Robin Salverson:**

Yes. The Beef Quality Audit started, like you said, in 1991 and then BQA started a few years after that to help address these challenges that the industry was seeing, so…

**Sydni Borders:**

Yes. That’s really cool because as you look at the data and you really start studying it from all the previous audits, for example, injection site lesions were a huge thing in 1999 on the market cow and bull side of things. As you said, that’s when BQA really started up and running, but since then, in 2007 was the next market cow and bull audit, there was a drastic increase in the percentage of animals free of injection site lesions. Today, that holds about 98%, 96% to 98%. That’s just a great improvement that industry is seeing, and as a result of Beef Quality Assurance programs.

**Robin Salverson:**

Well, I’m glad you said that because our producers, whether they’re cow/calf producers, whether they’re feeders at feedyards, they have – it all starts at those levels. Right. It starts at the cow/calf operation and as that animal moves through the segment of the industry, everyone that touches it can have an impact.

**Sydni Borders:**

Right.

**Robin Salverson:**

We have seen such a great improvement. We are no longer seeing those injection site lesions and consistency of our product is better. Right.

**Sydni Borders:**

Yes.

**Robin Salverson:**

Those are all due to our producers doing the right thing.

**Sydni Borders:**

Right. [Absolutely].

**Robin Salverson:**

So, I’m glad you brought up the Beef Quality Assurance program, or BQA. Actually, I was just going to end the podcast with that that the Beef Quality Assurance program is a certification program for producers and it actually can be done either through the National BQA website, there’s an online training course, or you can do a face-to-face training, and here in South Dakota, myself, Robin, is the South Dakota BQA coordinator, so that there’s ever at any time anyone that’s listening to this episode that would like to be BQA certified, please reach out. Sydni is actually a trainer, too. So, we can get that done for you but I just want to applaud our producers, applaud our industry for making such great strides and improvements in the product that they’re producing. With that, would you like to share any last comments, Sydni, before we sign off?

**Sydni Borders:**

One thing that I think still holds true to the quality audit this year was first actually mentioned in 1994 and it was we as producers, we need to manage our cattle, monitor them and market them in a timely manner. Those three M’s, as I like to call it, still ring true today. So just moving forward, to all of our producers out there, keep those in mind. I’m with you. I definitely want to applaud all of our producers. We’ve made great strides as an industry. We’ve seen improvements in cattle handling, genetics. We just need to keep being great.

**Robin Salverson:**

Absolutely. Well, thank you, Syndi, for joining me today on this episode. This has been Cattle HQ, brought to you by SDSU Extension, headquarters for all things beef/cattle. Visit extension.sdstate.edu for the latest beef information. Until the next episode, the most important thing you can wear is your attitude.

**Kiernan Brandt: [Music]**

Thank you for tuning into this episode of Cattle HQ, brought to you by SDSU Extension, headquarters for all things beef. We invite you to visit extension.sdstate.edu for the latest beef information as well as subscribe to the show on Spotify. You will also find show notes and resources from today’s episode. Until next time, remember, success is not a goal. It’s a byproduct. [Music]

[Outro music]