

Advancing the Beef Industry

First, congratulations to the Wisconsin group on a job well-done hosting the 2016 Junior National Hereford Expo (JNHE). I would also like to commend American Hereford Association (AHA) staff, the National Junior Hereford Association board and the many sponsors who made this event possible.

Likewise, the turnout of exhibitors and the number of cattle shown were tremendous, leaving no doubt that the JNHE is in a league of its own. I also thought the quality of cattle exhibited throughout the week showed great promise as to the breed's progress, and I want to compliment the juniors for breeding, selecting and preparing an outstanding set of cattle.

Many times I caught myself looking up a registration number in the database to see how the pedigree and genetic profile stacked alongside a quality show heifer. I must say there were several cases where all three blended together quite nicely — again my compliments to the juniors and breeders behind these cattle that are truly trying to add performance with quality.

Tissue samples for DNA collection

By now you have probably realized that the AHA is

offering blood cards as a means to collect DNA. Blood cards can be requested by calling the AHA.

The advantage of blood cards in comparison to pulling a hair sample is that you can sample a calf at a much younger age. Even though pulling hair is still an effective way to collect a DNA sample, you usually have to wait until the calf is four to five months old as the hair is easily breakable prior to this time. With blood cards, there is no age restriction. To learn more about collecting a DNA sample, watch the video "How to Collect a DNA Sample" on the Hereford YouTube channel, "herefordvideos."

The AHA will soon release an additional collection method called a Tissue Sampling Unit (TSU). AHA is partnering with Allflex to offer breeders TSUs along with traditional visual tags and electronic identification (EID) tags.

Similar to blood cards, TSUs can be used at any point in an animal's life. The main advantage I see with TSUs is the ability to capture DNA at tagging rather than waiting to see which animals you'd like to genotype at weaning or a couple of months ahead of your production sale. You will have already taken the sample and received the results from the lab.

What about that unfortunate case where you are trying to get a donor or a sire permitted and the animal has died? You may

have some really good calves that need to be registered, but you don't have a DNA sample. Using a TSU at birth alleviates many of these headaches that several have encountered, not to mention that it provides the lab with a clean sample that can be processed more efficiently, particularly when compared to hair.

Before, there was some concern with submitting a tissue sample because once the lab has used the sample there is nothing left. This problem would limit in retesting and would result in collecting an additional sample. Now, because of the technology advancements with buffer solutions on how to amplify the DNA, a sample can be acquired from just the solution while leaving the tissue sample intact.

So what's the cost of a TSU? For \$2 you can capture a DNA sample per animal. Whether you submit the sample or not, at least you'll have it. TSUs can be stored for a lifetime in a freezer and, therefore, provide the luxury of submitting the sample whenever you want — using them is really a pretty cheap insurance policy. Think of it as being proactive rather than reactive.

We are just on the cusp of the advancements in beef cattle selection through DNA, and TSUs offer you the flexibility to handle whatever comes your way. Look for updates on the AHA website for TSU and TSU tag combinations. **HW**



Shane Bedwell

Using the Tissue Sampling Unit method offers the ability to capture a calf's DNA at tagging.

