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Carcass Ultrasound 101

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Ultrasound for the 40-Cow Herd

Everything from agriculture to the competitive business world is experiencing vertical integration to some degree. While economies of scale seem to win out in many cases, the beef industry should not try to act like Wal-Mart. A few of their consolidation efforts can be effectively applied to beef cattle production, but striving to be a "one-stop shop" for every producer in the country is a bit of a lofty goal. The vast majority of herds in the U.S. have far less than 100 cows with no aspirations of growing to record numbers. However, every cowboy with 40 head can be just as progressive with their breeding program as the neighbor with 4,000 cows. As beef technology has expanded and become more cost-effective, small-scale operations now have the same opportunities as the big operators. This article focuses on effectively using carcass ultrasound technology in a typical 40-head seedstock operation.

Find a technician.

Economies of scale can intimidate breeders into thinking they cannot afford new technology. While it doesn't make sense to own a 36-row planter for 40 acres, there's plenty of logic for using ultrasound in a small herd. Just 10 years ago, ultrasound was commercialized with just a handful of technicians and a process that took weeks to complete. Today, the www.cuplab.com website lists the contact information for over 110 certified technicians from 34 states and 10 from Canadian provinces. The struggle to find someone to scan your cattle is largely over. Plus, the competitive market allows you to solicit bids from multiple technicians hoping to earn your business. Computer speed, software updates, and internet advancements have eliminated the need for postal/parcel service and huge stacks of paper. Images can be received faster than ever before, interpreted more accurately than ever before, and received by the breeder's inbox in less than 48 hours on average. The CUP Lab® offers the same level of service to every breeder at the same cost; it's been $4 per head since the doors opened.

Organize a scan session.

If mileage fees, costs, or scheduling a technician is still a challenge, a little creativity can go along ways in your wallet. You may have to swallow some pride and call a competitor for help. A group of 20-30 head might not be enough to entice a busy technician, but including 3 or 4 neighbors would make the trip worth while and spread some cost. Better yet, call the large-scale breeder you've bought bulls from over the past 5 years and see if he/she will let you haul yours in to get scanned the same day he/she plans to do it. Your bull supplier stands to benefit from the additional scan data, contributing to his/her genetic base as well as your own. County cattlemen's association meetings are also great resources; you can seem pretty progressive to the commercial cattlemen in the audience if you spearhead the first ever ultrasound scan in your local area. If your kids' 4-H program can successfully organize a county-wide steer weigh-in every year, it's likely you could arrange a day to scan bulls and heifers from the same geographic

region. Congregate at the local vet clinic and lump in a semen evaluation for the bulls and pelvic exam for the heifers. This also increases the likelihood of using a safe cattle handling facility and a squeeze chute ideal for carcass ultrasound.

What should I scan? How many?
Every person with a university or breed association name badge will tell you to "scan 'em all," for the sake of their next grant proposal or EPD run. Yes, larger contemporary groups are better for EPD calculations since they are dependent on relative differences. However, feeding a heifer you never intend to breed defies all economic sense. Worse yet, keeping the nuts in your poorest bulls for the sake of a contemporary group will likely compel you into selling them as bulls. You can be sure if forced to sell a bull for $1,000 just to get him off the farm you'll have a repeat customer, only next time trying to buy your best bull for the same money.

For a herd of 40 cows, the most value for ultrasound is found on the female side of the calf crop, especially when heifers are retained as replacements. Since the herd size is smaller, each individual female placed in the herd is critical to the success of the carcass program you desire. If you only choose to scan the bulls good enough to sell as herd sires, the earliest opportunity to receive any carcass information from your cow herd is when she's bred back as a 3 year-old. If the ultrasound results from her first bull calf are very poor, you have a situation with a yearling bull nobody wants, a calf you likely won't keep, and a bred cow you really don't want. Keep in mind, to this point you haven't collected a single a dime of income from the cow! In this scenario, spending $20 on each of your potential replacement females seems like a good bargain or a solid insurance policy.

Please don't misconstrue that bull ultrasound data is less important for small herds. If you intend to sell bulls, buyers often demand to see the scan results before they ever start the truck. Though the significance of actual data is downplayed in the world of genetic evaluation, it still matters immensely to the typical bull buyer. And it should matter to you as well. If every potential bull buyer on the place wants to see 4% IMF before they go look at a bull, you should do your best to provide it, and it starts by keeping heifers that are at least 4% or better.

What's good?
Many breeders only seem to be satisfied if the average for every carcass ultrasound column on their report goes up. It's a sign that the breeding program is working, right? Unfortunately, bigger is not always better with ultrasound traits. Progress in actual data can be realized by simply emptying the grain bin a little more each year. The Achilles heel of technology is that it gives us the tools to make mistakes faster than ever before. For example, you may win the race to raise the bull with the largest ribeye in the county, but it's possible you would also receive the award for feeding his dam more hay than any other cow on record!

Independent of herd size, breeders should strive to raise cows that thrive in their environment and compliment them with bulls that generate progeny desired by their customer base. Since most folks buy commercial bulls and females locally, it's likely that animals that work in your

environment will work for your neighbors' too. Some programs take pride in having every cow on the farm look the same, inside and out. However, this only ensures success if every buyer is looking for the same thing. Opinions of what the "ideal" beef animal should look like on paper and in the pen vary, so a little variety in the cow herd can be a marketing advantage. Remember, carcass ultrasound traits are not adjusted for frame score or weight, only age. As a result, two bulls can be identical in how they scanned yet phenotypically be very different.

Search from within…for a bull.

Cattlemen are no doubt creatures of habit. A trend of buying bulls or females from outside sources can be difficult to break. However, one of the most cost-effective uses of ultrasound data is to keep a herd sire you raised. You calved him out, know his complete health history, his performance and carcass traits on your feeding program, the fertility of his dam, and the answer to every question you may ask about a bull you're willing to purchase from someone else. To quote one famous cattle breeder, "Why would anyone want to buy a bull from me if I won't even use one of my own bulls?" In small herds with a genetically similar cow base, this can be a challenge, but tight line-breeding can be extremely successful. If mating a dam to her son troubles you, then put her in the donor pen, offer a flush on her in the upcoming state sale, or artificially inseminate her to the bull of your choice.

One thing is certain; a professional photo and a full-page ad do not make a bull or cow any better than yours. On the other hand, under the same management, a 15 square-inch ribeye with Choice marbling and a quarter inch of backfat is all the same…whether you own 40 cows or 4000.