



Bringing Sheep and Goats into the Ultrasound World

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When it comes to data-based marketing, sheep and goat producers have some catching up to do compared to other forms of meat production, according to Iowa Meat Goat Association President Curt Rush.

"It would be the greatest thing in the world, when selling a buck, to be able to show ultrasound scan results from six months or one year of age so people could objectively pick the best one," says Rush, who raises Boer goats at C&C Livestock near Wiota, Iowa. "But we don't yet have that in the Boer goat world." Rush says some parts of the country are ahead of Iowa in that respect, and there is some early effort to establish EPDs, but industry-wide still there is too much reliance on subjective impressions.

"Everyone tends to look at the animal that looks best in the show ring," Rush adds, "but that isn't necessarily the one with the best carcass traits and genetics. If I could show data, like EPDs, rib eye, and backfat, people would buy according to that, not just how they look."

"EPDs created from ultrasound measurements are still the best tool to assess actual genetic merit," says Scott Greiner, Associate Professor of Animal and Poultry Sciences at Virginia Tech's College of Agriculture and Life Sciences.

The consumer, and the grocery stores and restaurants that supply that consumer, want consistently bigger and better cuts. "And, like other forms of meat, they want to know where the meat comes from, what it is fed...and processors want a high meat to bone ratio," says Rush. "We need data and documentation to back those things up."

"Ultimately it means dollars and cents on the table," adds Greiner. "As the market signals increase, so will the use of available technology for genetic selection based on growth and carcass merit."

Market Signals

"It's hard to get packers to make changes in their procurement systems when supplies are tight," says Dan Morrical, Extension Sheep Specialist at Iowa State University, referring to the limited use of value-based marketing within the sheep industry. Typically, packers only offer premiums for carcass merit on large contracts. "It's a logistics issue on their part. There are basically five lamb-harvesting facilities in the U.S., and they're not set up to follow small groups of lambs through the system."

"They know better sheep make more money," continues Morrical, "but they need every animal they can get, so they aren't going to turn anyone away." The lack of financial incentive deters some producers from focusing on improving carcass traits through genetics.

But not Bob Kimm of Kimm Suffolks in Dysart, Iowa. Using ultrasound in his breeding program, he has increased average rib eye size from around 2.5 to 3 inches. "I will only keep a replacement ewe if her rib eye size is above the flock median," he explains.

He uses ultrasound to identify animals with a large rib eye not only for his own breeding purposes, but as a marketing tool when selling breeding stock.

"I guess I use it like you would any other species," says Kimm. He began scanning rams and ewes 14-15 years ago, and says he wouldn't dream of putting either on his annual production sale without ultrasound carcass data. "My customers have come to expect it." He sells around 70 rams and 90 ewes each year to customers in 25 states. Around 30 percent of those are commercial producers.

"They want the total package," he says. "They want pedigree, they want structure and visual attractiveness, and they want data. It gives confirmation of what they see." Kimm would definitely like to see ultrasound more heavily utilized in the sheep industry. "If I could buy sheep with the same data as I sell them with, it would make my job making the leap to the next level a lot easier."

There are currently more than 80,000 sheep and lamb operations in the U.S. producing 5.63 million head each year. Getting them to use ultrasound consistently is a challenge, according to Greiner. "Sheep are often scanned at various ages and levels of maturity," he says. "The basis of comparison needs to be based on common principals, much like it is in beef, for instance."

Better consistency in scanning practices would enable the further development of EPDs, an essential component to well-balanced carcass improvement, according to Greiner. "We know ultrasound is the best tool for genetic selection and genetic progress," he says, "and we can best utilize ultrasound data in the context of EPDs."



Increasing Efficiency

The goal of genetic improvement, in any species, is animals that produce more meat at less cost.

"We need to improve our efficiency of production," says Morrical. Average lamb production in the United States is 1.1 lambs per ewe. That puts pressure on producers to select high-producing ewes with strong maternal traits and rams with more muscle.

According to Morrical, every 0.1 square inch increase in rib eye size at the same live weight means a 0.5% increase in dressing percentage. That means an average 140 lb. market weight lamb produces .7 lbs. more carcass weight. At a current worth of \$3.13 per lb. that's \$2.12 more value per head. At 75 lambs per year, that's \$150 a year, or \$500 over three to four years, just by having a ram with a slightly bigger rib eye.

"And we need to become more efficient in our production scheme," says Morrical, "We know heavily muscled, fast-growing rams are more efficient." And meat producers of all types know carcass and growth are highly heritable traits.

"If feed costs \$300 a ton, or 15 cents a pound, and you can produce a ram that can save 10 percent on feed conversion, or 50 pounds per lamb fed out, and he produces 75 lambs a year for three years – that ram saved more than \$1,500 on feed costs," offers Morrical.

And that, according to Morrical, makes the case for ultrasound use. "We need more efficient sires that produce lambs that grow faster and produce heavier muscled carcass with less fat," he says. "We need ultrasound to sort potential sires by muscle composition. Imagine – sorting for muscle and getting muscle."

Ultrasound, and the data it can generate, is an idea whose time has come in the sheep and goat industry. The technical infrastructure is in place. The CUP Lab® provides training, and equipment and software. The science-based proven approach that has been used so successfully in the beef industry assures quality data.

What's more, The Cup Lab® offers unbiased, third-party interpretation of ultrasound images, a key to objective EPD development. "We stand ready to work with NSIP and the entire sheep and goat industry to develop a scientifically sound program that will move the industry forward," says Marvin J. Walter, President and Chairman of the Board at Walter & Associates/CUP Lab®.

And according to industry insiders, it won't be long until producers are on board as well.

"Whatever animal you're producing the yield goal is a lot of meat," says Rush. "And to stay competitive, you have to be ahead of the curve. Increasing the use of ultrasound can help us do that."