

Matt Barten – Embruon

This is Kansas Profile. I'm Ron Wilson, director of the Huck Boyd National Institute for Rural Development at Kansas State University.

How can a beef producer improve his or her herd more quickly? Since beef cows have a nine-month gestation period - longer than other livestock – generational improvement takes time. In recent years, a number of producers have used the process of embryo transfer, in which a superior cow is fertilized and then her embryos are transferred to recipient cows who carry the calves to natural birth. This multiplies the offspring of high quality cows, but it still takes nine months or more to see the results. Today we will meet an entrepreneur who has devised a process to get an advance look at how those embryos will perform when they become a full-grown beef animal. It's today's Kansas Profile.

Matt Barten is the owner and founder of a new company called Embruon. He grew up near Carlton in southwest Dickinson County and earned an animal science degree at Fort Hays State. His brother Casey became a veterinarian and set up a vet clinic near Carlton, southwest of Abilene. Matt got degrees in radiology, medical diagnostic imaging, and sonography, which includes medical ultrasound that can be used in both human medicine and in animals. For two years, he used his skills at what was then called Mercy Regional hospital in Manhattan during the week, and assisted his brother at the veterinary clinic on weekends.

"I did an (obstetrical) ultrasound of a lady one day, and the next day I did her dog at the vet clinic," Matt said. In 2004, Matt married and moved to Salina. He continued to work on ultrasound with his brother's veterinary clinic.

One day in 2006, Matt was demonstrating how ultrasound works. He was showing someone an image of his own thyroid when he spied something unusual. It turned out to be a cancerous growth, but was detected so early that he had it removed and made a full recovery without chemotherapy. (I've heard the phrase "Doctor, heal thyself," but that is amazing!)

Matt continued to enjoy working with cattle. As more producers started to use embryo transfer, Matt recognized that technology could help accelerate the process of herd improvement. Matt pioneered a process of biopsying the embryos in a way that identifies the sex, recessive traits, and genetic profile of the calf once it would be fully grown.

In 2014, he started his own business to utilize and market this process. The company is named Embruon. "The English word embryo is derived from the Latin embruon, meaning 'burst to life,'" Matt said. "I've always loved reproduction and genetics, and I could see that this would be a very positive thing for the beef industry."

Beef cattle have what is called a long generational interval, because it takes a long time for a calf to gestate, be born, and grow up to produce another generation. Rather than waiting all that time to evaluate a calf, Embruon enables cattle producers to know the animal's genetic traits when still an embryo.

"Let's say a seedstock producer is wanting to improve the calving ease of the cows he sells," Matt said. "This process enables him to select the embryos which can give him the most improvement." The unused embryos are saved to meet other producers' needs.

“This is not genetic modification or gene editing,” Matt said. “It simply streamlines the process so you don’t have to wait for the offspring,” he said. “You can make advances in one year that used to take four to five years.”

As a startup entrepreneur, Matt participated in the K-State College of Business Center for Entrepreneurship’s annual Launch A Business program, which is supported by KS State Bank. Embruon won first place in the LAB food science category. “It was wonderful, a huge blessing,” Matt said. This was quite an experience for a young man who grew up near Carlton, a rural community of 42 people. Now, that’s rural. For more information, see www.embruon.com. For more information on LAB, see www.k-state.edu/lab.

How can one improve a cowherd more quickly? Thanks to Embruon, this is possible. We salute Matt Barten for making a difference by using technology to achieve quality quicker.

For the Huck Boyd National Institute for Rural Development at Kansas State University, this is Ron Wilson with Kansas Profile.