

# Quick Scan Beats Progeny Testing

Rapid adoption of ultrasound body-composition expected progeny differences is lessening the need for a structured sire evaluation program.

by *Chris Lavergne*

**S**uperior genetics and steady improvement have made Angus the leading breed. Since 1974, the American Angus Association has evaluated 3,075 Angus bulls by testing 61,439 heifer and steer progeny for carcass merit.

For the past 10 years, Certified Angus Beef LLC (CAB) has been responsible for assisting progressive producers in gathering detailed carcass data. Anyone curious as to their cattle's carcass merit had the opportunity to provide test herds for reference sires and young, unproven bulls.

The carcass database is the "envy of any other national-level breed association anywhere in the world," says Ron Bolze, CAB director of genetic programs. Many producers have relied on the information to improve the genetic makeup of their herds and, subsequently, the value of the Angus beef product.

## Next step

The desire to provide the most innovative resources for Angus seedstock and commercial producers led the Association to fund a pilot project with Iowa State University (ISU) to collect and interpret ultrasound images, starting in 1998. In three years, the Centralized Ultrasound Processing (CUP) program processed compositional data for 7,196 sires and 94,104 dams.

Ultrasound has "moved the evaluation of body composition to the next level," says John Crouch, Association director of performance programs.

Bolze says increased use and acceptance of ultrasound body-composition expected progeny differences (EPDs) has spurred the Association's decision to phase out the structured sire evaluation program.

Carcass data is still a useful tool, especially in characterizing commercial cow herds, Bolze says. But while producers may continue to evaluate sires through their progeny, they will do so in a less structured manner from now on. As of this



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fall, CAB will provide carcass data only when cattle are fed at one of its licensed feedlots, Bolze says.

"The Feedlot Licensing Program (FLP) provides producers with the detailed carcass data needed to improve their genetic base," says Turk Stovall, CAB assistant director of feeder-packer relations. "It also gives insight into how their cattle are performing — health, gain and feed efficiency, all factors that affect the ability to grade and profit."

## Ultrasound advantages

"Ultrasound body-composition EPDs hold at least three advantages over carcass-derived EPDs," Bolze says. "First, technicians are able to take images from both bulls and yearling heifers. Data can be collected for replacement heifers, whereas with carcass-derived EPDs, the cattle must be harvested."

Second, ultrasound allows collecting information on entire contemporary groups

at one time as opposed to two or three sorts for harvest, he adds.

Finally, ultrasound makes use of the "full-animal model" that includes genetic merit of the dam. Bolze says the commercial cow's contribution is not taken into account with steer data. With carcass-derived EPDs, bulls were used on commercial cows at random with no knowledge of the genetics of the cow. If random mating occurred, the cow's genetics wouldn't affect the results.

"With ultrasound we have genetic information of the mother of the individual we are measuring," Bolze says. "We are now able to account for the bottom side of the pedigree."

## No translators needed

Ultrasound-generated EPDs won't call for an overhaul in terminology, only a willingness to take on a few more terms, Bolze says. If you have used EPDs to beef up "marbling" potential in your herd, you will need to adjust to "percent intramuscular fat"

(%IMF), an objective reading of the amount of fat in the ribeye muscle, when using ultrasound-derived EPDs. For all practical purposes, think of marbling and %IMF as the same, Bolze says.

In other adjustments, “rump fat” provides an additional measurement of external fat and, when used with fat thickness, provides a more accurate prediction of percent retail product. A percentage of live scan weight is used in lieu of carcass weight.

Brian McCulloh, Woodhill Farms, Viroqua, Wis., says preparation for the change involves becoming familiar with various percentiles of the breed.

“People will have to freshen their minds in terms of benchmark numbers. It will be an ongoing educational process for [seedstock producers] to understand,” he says, “so we can convey to commercial guys that the difference between a -0.02 on %IMF and a +0.02 on %IMF is very small.”

#### **Ultrasound will save time**

“It gives me more lead time,” McCulloh adds. “I can use a young bull, as a yearling, and a year later ultrasound his first calf crop to assess whether this bull is going to be what his pedigree prediction says for marbling, ribeye, fat and more.”

Recalling a recent unproven young bull he used, McCulloh says, “There is risk. But after reviewing the performance pedigree on that bull, and after 153 head were ultrasounded, I have been reassured that this bull is acceptable and perhaps even better for [%IMF] and marbling.”

While the transition to ultrasound EPDs will be an adjustment, Crouch says there is no turning back. “The Angus community has embraced it, and the beef industry is demanding it.”

