Bending Curves, Breaking Stereotypes

Live-animal session shows genomic application.

by **MIRANDA REIMAN,**
Certified Angus Beef LLC

"You won't find a bigger fan of marbling than me, but the success of CAB is more than just marbling," said John Stika. It starts with a live, healthy calf and all the ranch-level moneymakers.

PHOTO BY MIRANDA REIMAN

Angus cattle need to do more than ever before. Carcass quality, functional females, feedlot performance — they all matter. That theme was evident at the Innovation Workshops sponsored by Zoetis in the Priefert Cattle Demonstration Arena during the 2016 Angus Convention Nov. 5-7 in Indianapolis, Ind.

John Stika, president of the *Certified Angus Beef*® (CAB®) brand, talked of reaching the billion-pound sales milestone in fiscal year (FY) 2016.

"You won't find a bigger fan of marbling than me, but the success of CAB is more than just marbling," he said. It starts with a live, healthy calf and all the ranch-level moneymakers.

Stika recalled a producer once telling him about a high-quality carcass: "It's the most valuable thing we produce, but it's the last thing we get paid for," the producer had shared.

That's why it's important to be sure cattle are "doing it all," Stika said, while challenging the crowd to further the breed's current momentum.

"We will not sell 2 billion pounds of *Certified Angus Beef* doing the exact same thing we did for the last 38 years," he said. Employing all available technology is the logical path.

"The genomics will just become part of what we do. It won't be special anymore," Stephen Miller, director of genetic research for the American Angus Association, predicted.

In 2015, a quarter of all registered-Angus cattle included DNA information. That data helps make expected progeny differences (EPDs) more accurate. Miller told the audiences how to use those measures to make progress while avoiding narrow selection.

Multi-trait progress

"The more traits we throw at the thing, the less progress you're going to make in any one of them," he said, noting that's why indexes were created.

The scientist suggested using economically weighted values, such as weaned calf value ($W) or beef value ($B), to rank animals.

"Then we can look at different traits and structure and things like that," he said.

Trends show cattlemen are making progress, as the breed average for $B, carcass weights and marbling have trended up. At the same time, weaning weight has improved, while birth weight has decreased.

"Curve benders" have become more common, said Dan Shike, University of Illinois animal scientist.

"It used to be if you selected a calving-ease bull, you just had to accept that you were giving up other traits," he said.

Curve benders are typically considered those with "relatively low birth weight as compared to weaning weight," Kent Andersen, director of genetic technical services for Zoetis, explained. He and Shike evaluated live animals and then revealed their genomic data, talking through how it might change breeding recommendations.

"By testing, we front-load them with information so we can do a better job with mating," Andersen said. It especially bolsters confidence on young sires. "We can jump-start accuracy."

PHOTO BY MIRANDA REIMAN

Kent Andersen of Zoetis and Dan Shike of the University of Illinois discuss a bull's phenotype and genotype with attendees of the Innovation Workshops sponsored by Zoetis at the 2016 Angus Convention. The session was intended to help lead cattle producers through the process of creating breeding plans.

Live example

Adding the genomic data uncovered a "triple curve bender," as Andersen called it, among the live animals on display. As OA Big Sky 305 came into the ring, the pair described his moderate birth weight. He was in the top 10% for weaning weight EPD, yet had the genetics to produce moderate daughters.

"We want rapid, efficient growth until a year of age, and then stop," Shike said. "This breed has proven we can do that."

The bull's carcass traits made him a "triple," with well-above-average carcass weight and marbling. He was in the top 20% for $B.

Attendees were able to use text-polling to interact with the presenters. When Andersen asked them to select their favorite bull on both visual appraisal and the numbers, 305 was the clear choice, with 88% picking him.

Finding bulls to fit specific breeding goals can be as simple as using the "Sire Summary Search" on the Association's website (*www.angus.org*), Andersen said. Producers can enter minimums and maximums for all reported traits and narrow the report of prospective sires.

"It's a powerful tool," he said.

For additional coverage of the Angus Convention — including summaries, speaker presentations, photos, videos and more — visit the convention newsroom at *www.angus.media/news/Angus-Convention*.

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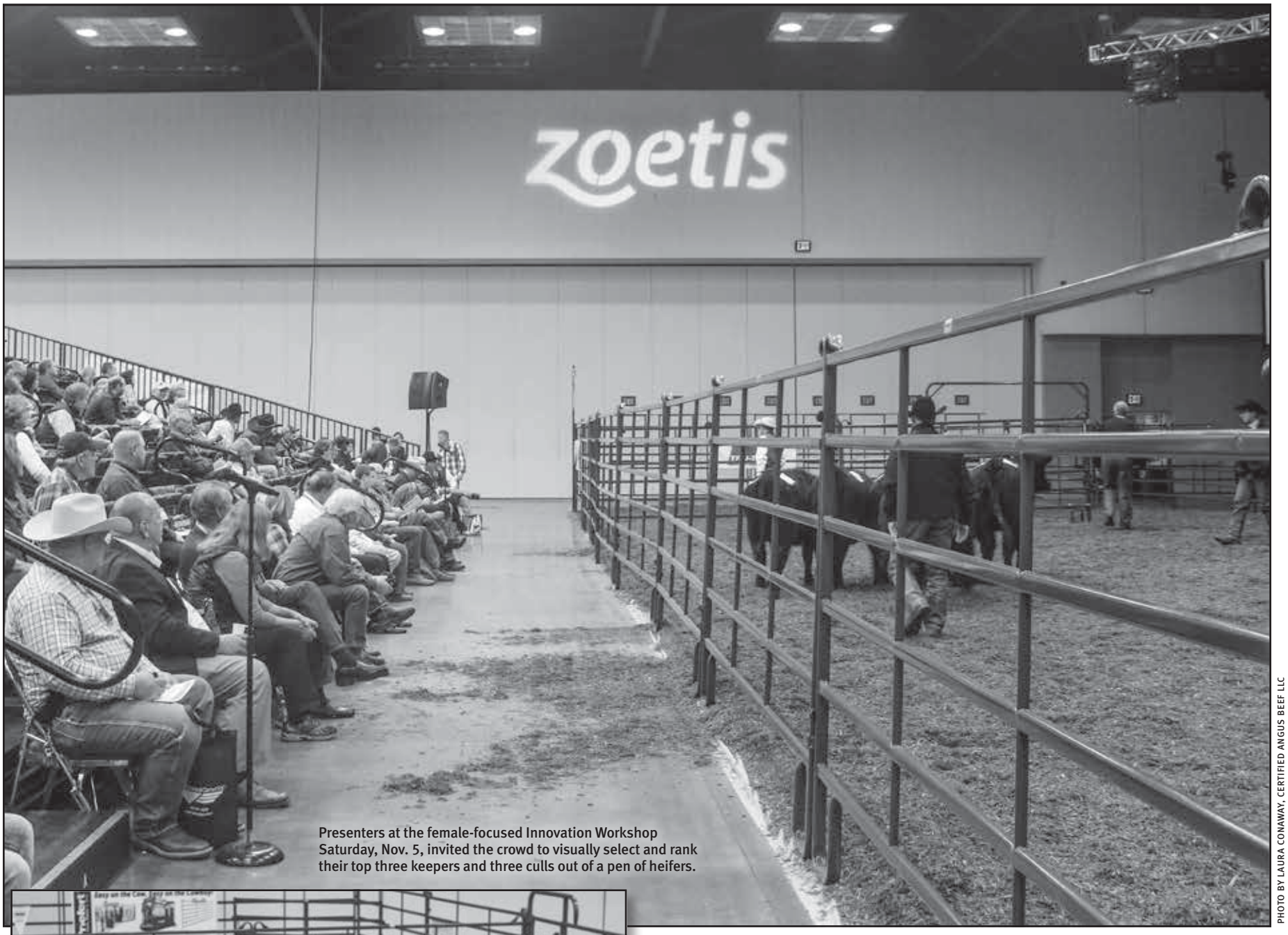
Editor's Note: *Miranda Reiman is assistant director of industry information for Certified Angus Beef LLC.*

ANGUS CONVENTION

A Benefit to All Involved



Presenters at the female-focused Innovation Workshop Saturday, Nov. 5, invited the crowd to visually select and rank their top three keepers and three culls out of a pen of heifers.

PHOTO BY LAURA CONAWAY, CERTIFIED ANGUS BEEF LLC

PHOTO BY LEANN SCLEICHER

"It's good to get up close to an animal," Zoetis's Kent Andersen said. "Mix in cowboy practical sense when working on paper to make our final decision."

Live-animal session explains advantages of testing to know more earlier.

by **LAURA CONAWAY,**
Certified Angus Beef LLC

Keep it simple.

If producers took anything away from the Innovation Workshops at the 2016 Angus Convention Nov. 5-7 in Indianapolis, Ind., it would be to find the ideas that matter and apply them. Don't focus as much on the numbers from genomic tests as how to use them profitably.

"The reality is, this thing has to be about economics," Mark McCully said. "You have to be able to find and produce calves that make you more money."

The *Certified Angus Beef*® (CAB®) brand's vice president of production said that means responding to market demand for both functional cattle and high-quality beef, rather than choosing one or the other.

"Do we have to pick?" McCully asked the audience. "Is it the cow *and* the carcass, or is it the cow *or* the carcass?"

The answers are no and the former.

"Today, with the tools we have and the advancements in genetic technology, it's not an either/or scenario; rather, it's an ability to blend both."

The market says to use that ability, bringing to consumers what they want most.

Citing Virginia Tech animal scientist Scott Greiner's research in the area, McCully said selection for marbling comes with no detrimental effect on other cow traits.

"Single-trait selection is pretty dangerous in and of itself," he noted, "so this is reassuring that we actually can select for that trait that makes our product so desirable while at the same time we are able to

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Genetic progress in $W and marbling has increased steadily within the Angus breed.

Applying those principles to the commercial ranch, Kent Andersen, director of genetic technical services for Zoetis, explained the ins and outs of the GeneMax® Advantage™ and reconfigured Focus genomic tests.

The latter offers a sire match feature while predicting postweaning gain and carcass quality grade. Advantage is a more extensive test that serves as a female selection tool, combining maternal and terminal traits. Both can add value and influence price discovery.

Assisted by Angus Genetics Inc. (AGI) President Dan Moser and Genetic Service Director Kelli Retallick, Andersen invited the crowd to visually select and rank their top three keepers and three culls out of the pen.

Attendees used text-polling to interact with the presenters as Andersen showed GMX data to determine if the overall perception of keep/cull females would change the outcome.

"We can make some educated guesses on what we should keep, but wouldn't it be nice if we had a fuller, complete range of the story?" he asked.

Bigger isn't necessarily always best, he added, as resources must be adjusted to match cow herd needs. Further, it's no good to disregard visual analysis in its entirety.

"It's good to get up close to an animal," Andersen said. "Mix in cowboy practical sense when working on paper to make our final decision."

On average, the text polls showed producers would have selected similarly, either way.

"If we keep these top three, across the entire spectrum of CAB production, through the sixth calf, they're going to generate you 782 more dollars based on the genetic differences in the product," Andersen said. "Why wouldn't you want to have this information front-loaded and available at the time you make these decisions? It's going to help drive net return throughout each segment of the beef production phase."

PHOTO BY LEANN SCLEICHER

Attendees used text-polling to interact with the presenters as Zoetis's Kent Andersen showed GMX data to determine if the overall perception of keep/cull females would change the outcome.

The session was the second of two live-animal Innovation Workshops sponsored by Zoetis in the Priefert Cattle Demonstration Arena.

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