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October 2018

MISSISSIPPI
BCIA
BEEF CATTLE IMPROVEMENT ASSOCIATION

- October 26—North MS Beef Expo—Batesville
- **November 7– Fall BCIA Board Meeting– Raymond**
- **November 8—Fall BCIA Bull and Heifer Sale, Raymond**
- November 12—MCA Cattlemen's College—West Point
- November 13—MCA Cattlemen's College—Hattiesburg
- December 1-2 - Mississippi Beef Expo– Jackson
- January 15– Deadline for consignments to Spring BCIA Bull Sale
- March 6— BCIA Annual Meeting– Raymond

Inside this issue:

Fall 2018 Bull and Heifer Sale

Catalogs are mailed and posted online for what promises to be another great Fall BCIA Bull and Heifer sale. The bull division of the sale will feature 2 Charolais bulls from Phil Slay Farms, 1 Angus bull from Arrow B Farm, 3 Angus bulls from G & R Farms, 9 Angus bulls from Thames Angus Farm, and 21 Angus bulls from Vista Farms Cattle Co, LLC.

In addition to the bulls there will be both open and bred heifers. The open yearling heifers are all registered Angus and ready to breed, with 4 from Thames Angus Farm and 9 from Vista Farms Cattle Co, LLC. The bred heifer division features both registered Angus heifers as well as commercial heifers. Thames Angus Farm brings us 6 Angus bred heifers, and Vista Farms Cattle Co, LLC brings us 6 Angus bred heifers. The commercial heifer division features 1 bred heifer from Vista Farms Cattle Co, LLC. She's a commercial Angus and bred AI to an Angus bull. Peden Farms brings us 5 commercial Angus bred heifers. These heifers are sired by and bred back to Angus bulls purchased from this very sale! M&M Farms is bringing another nice set of commercial bred heifers sired by SimAngus, Red Angus, and Gelvieh bulls, and bred to their SimAngus herdsires.

Cattle will be available for viewing after check in on the afternoon of November 7, and we hope you'll also join us for dinner and an educational seminar at 6:30 PM in the Sales Arena at Hinds Community College in Raymond. Please RSVP to brandi.karisch@msstate.edu or by calling 662-325-3516.

If you have not received a catalog, please contact us at brandi.karisch@msstate.edu or call 662-325-3516 with your mailing address, and we'll drop one in the mail!

Please don't hesitate to contact any of the cosignors with questions about their lots!

Accelerating Progress in Beef Improvement

By: Troy Smith, field editor

LOVELAND, Colo., June 21, 2018 —LOVELAND, Colo., June 20, 2018 — Stewart Bauck predicts a bright future for the beef cattle industry, thanks to advancements in tools for genetic selection that have been developed in recent years. Bauck, who is vice president of Neogen, welcomed an audience gathered in Loveland, Colo., for the Neogen Geneseek Symposium. The program was hosted June 20 in conjunction with the 2018 Beef Improvement Federation Convention.

Stewart Bauck, vice president of Neogen, noted Neogen's evolution and growth as a company in providing cattle breeders with tools for beef improvement.

Bauck noted Neogen's own evolution and growth as a company in providing cattle breeders with tools for beef improvement. In recent years, Neogen has developed nearly 50 custom genotyping assays for its customers, entering partnerships with Angus, Simmental and other breed associations. Bauck said Neogen's growth to include offices in Brazil, Scotland and Australia, as well as the United States, has been based on three pillars of success: high-quality data, fast turnaround and fair pricing.

Bauck introduced symposium speaker Mitch Abrahamsen of Recombinetics, who talked about expectations for the role gene-editing technology will play in future beef improvement. Abrahamsen said gene editing can hasten genetic selection and make planned breeding more precise. He explained how this technology is different from transgenesis, which introduces genetic material from one species into another, yielding a genetically modified organism (GMO).

"Gene editing is not about GMOs," emphasized Abrahamsen. "We work only with genes that exist within a species, making small changes to deploy genetic variation that already exists in nature."

Mitch Abrahamsen of Recombinetics, talked about expectations for the role gene-editing technology will play in future beef improvement.

Abrahamsen said use of gene editing is being driven by consumer expectations for how food is produced and resulting effects on animal welfare and the environment. Practical applications include introduction of a polled gene to a horned breed, or introduction of genes associated with heat tolerance. The technology may also allow transfer of resistance to specific diseases.

"It's a technology that can complement traditional selection practices and genomics to accelerate genetic improvement," said Abrahamsen, explaining that regulatory approval is being sought in the United States and internationally.

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Spring 2019 Artificial Insemination School

The Mississippi State Extension Beef Team's Spring Artificial Insemination School is scheduled for March 14-16 on the Mississippi State University campus in Starkville. Registration fees for the course are $450 per person.

The course features a combination of classroom lectures and hands-on demonstrations in both a laboratory and field setting.

Visit http://extension.msstate.edu/content/ai-school for the complete schedule and to register. Please note the course is limited to 30 participants, and typically fills up 2 months prior to the scheduled date.

Fall 2018 BCIA Bull and Heifer Sale

LOVELAND, Colo., June 20 — Gene editing was the topic of focus at the Neogen International Genomics Symposium in Loveland, Colo. With new genomic technology and data, J.R. Tait, director of genetics product development, said Neogen GeneSeek Operations is able to offer commercial producers a way to make better breeding decisions.

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Tait used the beginning of his presentation to remind producers about the simple biology serving as the foundation for the cattle industry. Cattle possess 30 pairs of chromosomes, with roughly half of each pair "donated" by the calf's dam and roughly half donated by the calf's sire.

Tait said there are more than 1 billion possible combinations of chromosome pairs in either the egg or the sperm. With all these potential combinations, it can be difficult to predict which traits are being passed to the next generation.

"There's a billion times a billion possibilities going into a calf," Tait said, adding that means a quintillion possible combinations from any given mating. "This is why people are interested in genomics."

Tait described genomics as data allowing ranchers to see which traits their calf crop is inheriting each year. While Mother Nature plays a large role in this process, Tait said Neogen GeneSeek is able to help take some of the uncertainty out of breeding decisions.

"There's a certain amount of biology we can't get around. That biology creates variability," Tait said. "Genomics let us see what kind of variability exists in animals."

Tait said genomics have been a large part of seedstock operations for the past years, allowing the offering of calves to improve every year. However, while Tait said genomic tools have been offered specifically to seedstock operations, there are new tools in the industry designed specifically for commercial producers. Tait described the purpose of these tools as helping ranchers to find animals possessing "good genes."

Neogen GeneSeek tools for commercial producers include Igenity Beef, a program Tait said characterizes additive genetics in animals. Already applied to several breeds, Igenity Beef allows ranchers to find which cattle have the best chances of passing on desired traits to their progeny.

Tait explained Igenity Beef is broken up into two profiles: Igenity Silver and Igenity Gold. These subsets provide ranchers with 6 or 13 traits ranked on a scale of 1 to 10 in regard to the animal's chance of passing on certain traits.

Other tools offered include Igenity Production Index, a program tracking genetic trends in specific operations, Tait said. Tait told producers the company is currently working on completing the Igenity Maternal Index and Igenity Terminal Index, programs with a stricter focus on specific traits.

To further help producers learn about these programs and how to use genomic data to their advantage, Tait said the company has a beef sales team spread across the country. This team is dedicated toward helping commercial producers in their assigned states better understand how these programs work, so they can apply them to their operations.

This article is reprinted with permission from www.BIFconference.com, Angus Media's online coverage site of the 2018 Beef Improvement Federation Research Symposium and Annual Meeting.

October 2018 — Management Calendar

GENERAL

Summer pasture quality rapidly declines from now til frost. Graze permanent summer pastures closely, and plant winter forages where appropriate. Watch nutrition closely when grazing stalks and stubble and be prepared to supplement. Do not feed urea on soybean stubble. Remove cattle from sorghum crops after the first frost because of the risk of prussic acid poisoning. Keep proper free-choice minerals and clean water available for cattle at all times. Continue monitoring supplemental feed prices. Corn and by-product feeds such as cottonseed are often less expensive in the fall. Test the quality of stored forages if not already done. Watch body condition, and group the herd into winter-feeding groups such as mature cows with average condition, thin mature cows, and first-calf heifers. Match forage and feeding programs to the nutritional needs of each group. Keep up with lime and fertilizer needs. Maintain a complete herd health program in consultation with a veterinarian including internal and external parasite control and vaccinations. Remove any remaining fly tags.

SPRING CALVING—January, February, March

Pregnancy check herd females identifying and culling less productive or problem cattle. Finish weaning late calves using weaning strategies that minimize calf stress. Implement calf preconditioning, marketing, or retained ownership plans as appropriate considering seasonal price risks and breakevens on calves. Weigh calves and calculate adjusted weaning weights and ratios. Seedstock producers should send weaning records to breed associations for processing. Assess weaning percentage (calves weaned/cows exposed to breeding) and cow efficiency (calf weight/cow weight). Identify and cull bulls that have sired calf groups that are well below the herd average for growth performance and carcass traits. Implement a nutritional program to get thin cows in proper body condition before next calving. Use weaning weights to put a heifer selection and development program in action to reach target breeding weights (65% of expected mature weight) by the start of the next breeding season. Heifers will likely need to grow at a rate of 1 to 1.5 lbs. per day.

FALL CALVING—October, November, December

Keep calving supplies on hand, including calf identification tags and obstetric equipment. Move fall-calving heifers and cows close to handling facilities and observe cattle frequently. After calving, plan to move cow-calf pairs to clean pasture. Tag, castrate, dehorn, and implant calves as appropriate. Consult with a veterinarian for scheduling pre-breeding vaccination needs. Plan for herd sire needs by evaluating bulls and arranging breeding soundness exams.

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Membership Application

Name:_____

Address:_____

City:_____

County:_____ State:_____ Zip:_____

Phone:_____ Email:_____

(Check one) Seedstock:____ Commercial:____

Cattle breed(s):_____

Completed applications and $5 annual dues or $100 lifetime dues payable to Mississippi BCIA should be mailed to:

Mississippi Beef Cattle Improvement Association
Box 9815, Mississippi State, MS 39762