

Beneath the Surface

With the addition of the Phenotype and Genotype Show, Angus juniors are gaining a deeper insight on how to use genetics to better their herd.

by Megan Silveira, assistant editor

The National Junior Angus Show (NJAS) allows junior Angus breeders to compete with other budding cattle producers while also learning more about the Business Breed and their personal role in the cattle industry. From contests designed to test their ability to discuss key topics to the cattle show itself, the week of the NJAS is packed with opportunities for juniors to expand their toolbox as advocates for the breed.

While the National Junior Angus Association (NJAA) has always aimed to build up-and-coming cattlemen and women into well-rounded individuals, this year young showmen are learning how to find the balance between an animal's eye appeal and their genetic potential as well as how that same genetic

information can be used back home in their own breeding program.

The Phenotype and Genotype Show (PGS) was introduced to the NJAS this year. Both the American Angus Association staff and the Board of Directors first fostered this idea three years ago and implemented the show as a way to further emphasize the importance of expected progeny differences (EPDs) to the junior membership.

Randy Perry, beef unit enterprise manager and department chair at California State University – Fresno, served as the judge for the landmark event and says he thinks this event is a great addition to the NJAS and beneficial to the entire Angus industry.

Judging the genes

“The PGS is a more formal approach of trying to incorporate EPDs and phenotype together,” Perry explains.

The animals' ranking in the PGS will be based 50% on

their performance on paper and 50% on their standing in the ring. Perry says EPDs are just as important as an animal's physical characteristics, and this event places a spotlight on animals that combine the best of both worlds.

“Most of us that breed Angus want to pull those things together when we actually breed cattle,” he says. “We want to combine genetic profile with phenotypic qualities in both mating and selection decisions.”

Perry says sometimes show cattle only possess one-half of the equation, as EPDs are not typically incorporated into the placings of the show ring. The PGS will be a great opportunity for the Association to reward junior members in possession of livestock that both look good on the end of a show halter and on their registration papers, he adds.

He says some NJAA members come from operations whose goals focus on marketing their livestock to commercial customers rather than seedstock ones, and the PGS will give these showmen and their livestock an opportunity to be recognized in the ring.

“This type of show acknowledges cattle that aren't just for the show ring,” Perry explains. By grading phenotype equally to genotype, Perry



The PGS combines phenotypic and genotypic traits in one competition.

Continued on page 168

says new individual animals can gain a national title they are deserving of. He believes the best cattle aren't just pretty to look at but can go out and genetically perform in a herd as well.

Perry believes this show will bring a new element to the already competitive NJAS and prove beneficial in helping junior members better understand all aspects of the Angus breed.

Jump-starting juniors

Caroline Cowles is one of the National Junior Angus Board (NJAB) members who helped put on this inaugural event. While she has competed in events similar to the PGS before, she says this is her first time helping with the behind-the-scenes work.

From ring work to moving cattle into the correct final placings, Cowles says she and her fellow green jackets have a large responsibility to help the new event run smoothly. Cowles says the entire NJAA staff was eager to add this event to the NJAS schedule.


"We wanted a way that heifers would be recognized for their genetics," she explains. "Angus is such a versatile breed, so naturally breeders are looking for different things in their animals. We want more than just heifers that looked good."

Cowles says she is excited for cattle with great numbers to get the recognition they deserve at the NJAS. Across the nation she says Angus breeders have different goals for the cattle bred on their operation, and the PGS is a new opportunity for a different type of animal to win a national title.

With her green jacket comes the responsibility of helping NJAA members grow their abilities and knowledge about the Angus industry, and Cowles says this new event is the epitome of learning.

"The juniors making those decisions have to sort through the EPDs that are important to them and their herds to predict what type of cattle they'll have in the future," she explains. "I think this event is going to give juniors across the nation

a better insight into what their own cattle are doing and hopefully transition them into making breeding decisions."

Cowles says knowledge and growth come hand-in-hand. She hopes new insight on genomics will help NJAA members improve the cattle industry as they breed better cattle. In a few years' time, Cowles says she thinks the benefits of having the PGS will be visible in the quality of the next generation of Angus cattle. 

Understanding the Numbers

In addition to the first Phenotype and Genotype Show (PGS) hosted at the Angus University presented the Genomics and PGS Clinic — Get a Grip on Genomics.

"We wanted to give you all an opportunity to be more informed of not only what genomics do for our registration papers and expected progeny differences (EPDs) but also what the new PGS is to the NJAS and how genomics play a role in that show," said Jera Pipkin, education coordinator at the American Angus Association.

The clinic was hosted on Tuesday, July 21, and featured a virtual presentation from Angus Genetics Inc. (AGI) Genetic Service Director Kelli Retallick, and an in-person presentation from American Angus Association Board Member John Grimes, who played a key role in the implementation of the PGS at the NJAS.

Retallick introduced National Junior Angus Association (NJAA) members to the history of genomics in the Angus breed and provided a basic understanding of how genomics related to EPDs and the Association's dollar value indexes (\$Values).

EPDs were first introduced to Association members in 1974, and Retallick said 21 EPDs

are now available to Angus producers. She reminded Angus juniors EPDs examine how an animal is expected to perform as a parent and compares their performance to other individual animals of the same breed.

Genomics are used by AGI to help predict those EPDs, she added. Without genomics, Retallick said the value of those predictions would be less impactful and accurate.

John Grimes followed Retallick's presentation by sharing the origins of the idea for the PGS with audience members. He says, "I can assure you what's going to happen with this show is from several years of planning."

Grimes says one of the objectives of the PGS was to provide an educational opportunity about the value of EPDs. Grimes was one of the Board members vital in this event's implementation at the NJAS.

In addition to breaking down how the show would be run at this event, Grimes further elaborated on the need for and relevance of EPDs in an Angus breeder's toolbox.

He has high hopes this event will inspire junior members to be more involved in making breeding decisions for their herd.