

We Did It!

The 1 million genotype milestone marks forward-thinking progress.

by Riley Reep, American Angus Association intern

Outside of scientists and number nerds, more data may not seem like much to celebrate, until you learn what it means for the Angus breed and its members.

For many years, Angus cattlemen have been the leaders in making huge advancements within the beef industry. This summer was no exception. Angus Genetics Inc. (AGI), a subsidiary of the American Angus Association, reached 1 million genotypes in its database.

“This allows our members to make more accurate selection decisions when they go about making their breeding and mating decisions, and ultimately leads to an increase of pace in genetic progress throughout the entire Angus breed,” says Kelli Retallick-Riley, AGI president.

It took just over eight years to reach the first half million, and under three to bring that number up to 1 million. Currently, about 3,000 genotypes enter the evaluation each week.

“This is a testament to the pioneer mindset Angus breeders have always hung their hats on,” Retallick-Riley says. “The early adoption of genomic technology has led Angus to this point and will lend to future tools designed specifically for users of registered Angus genetics.”

AGI was established in 2007 to provide services to further advance the profitability of the beef industry through genomics, specifically the Angus breed. The submission of data and genomic tests enhances existing tools and contributes to the development of new technology, helping AGI fulfill that mission.

With little room for error in the cattle industry, AGI began including genomics in the genetic evaluation in 2010 to enhance accuracy, evaluate for traits at earlier ages and predict difficult-to-measure traits for Angus breeders. In addition to its large genotype database, the American Angus Association is home to the largest beef cattle breed phenotype database in the world.

“That really just goes to show the faith and the forward thinking our members have to show as much information, to harness as much information, as much technology, as they can to make the best breeding

decisions for the commercial cattle industry,” Retallick-Riley says.

In 2017 Angus completed a key update to its genetic evaluation. The adoption of the single-step methodology made expected progeny difference (EPD) calculations more efficient and more accurate. AGI partners with companies such as Neogen and Zoetis to process the samples and implement the latest technology. With the combination of these partnerships and the adoption of the single-step methodology, AGI offers a cattlemen-led database like no other.

In the future, Retallick-Riley says AGI will continue to work to make advancements to further enhance the beef cattle industry economically. The bigger the database, the more opportunity for AGI to leverage it to create novel solutions to real-world problems, she says.

“The value of genomics is here,” Retallick-Riley says. “While we continue to optimize these solutions to ensure accurate genetic tools, I have no doubt that the next 10 years with genomics will only continue to drive genetic progress and profitability for our independently owned farming and ranching families.” 

