

Breed Improvement  
Annual Meeting Summary/Report  
January 1, 2014 ~ December 31, 2014

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Committee members: Calvin Drake, Chairman, Bill McDonald, Blake Nelson, Gordon Hodges, Jessie Driggers, Jon Willis, J.W. Brune, Tim Smith. Staff contact: Wade Shafer.

**Breed Improvement Responsibilities:** All activities, which would have a bearing on the improvement of the breed, will be the responsibility of this committee. Performance guidelines, research, genetic monitoring, DNA analysis, and regulation for new technology are examples.

In 2014 this committee was involved with the following topics:

**Genetic Evaluation Option for Commercial Herds:** One of the goals of this program is to offer commercial producers a low-cost means of substantially enhancing their ability to select replacement females. On the flipside, the increased dataflow from commercial herds will increase the overall accuracy of genetic prediction for our members, partners and their customers. Commercial evaluation will also provide a pathway for commercial producers to increase their knowledge of, and interaction with, ASA. The program continues to evolve, as more commercial producers become participants.

**Genetic Testing on Suspect Sires:** The ASA board voted to drop genetic testing on suspect sires that do not have any registered progeny. ASA will require testing on suspect sires that do have registered progeny. It was felt that this modification would not increase our risk of exposure to genetic defects.

**Trait Trac Color Designation:** In an effort to mitigate the emotion surrounding selection decisions on animals with known defects, the ASA board voted to drop the color designation on our Trait Trac monitoring system. Though the various colors will no longer be associated with Trait Trac, ASA's website will continue to present all available information pertaining to the genetic defect status of our population. The color modification is strictly a matter of presentation; it has no impact on ASA's genetic defect policy.

**International Genetic Solutions (IGS):** The American Gelbvieh Association, Canadian Gelbvieh Association, American Limousin Association and the Canadian Limousin Association became new IGS partners with the addition of their databases over the last year. The additions expand on what is already the largest multi-breed database in the world. The IGS database, representing 12 breed associations, is now approaching 16 million records with over 400,000 animals added annually. Genetic evaluation provided through IGS is arguably the industry's most powerful selection tool.

**Genetic Software Development:** Based on board consensus from ASA's September 2013 strategic planning session, we have embarked on a software development project that will enhance our ability to utilize the rapidly evolving science of genomics and handle our dramatically increasing IGS database. This is a long-term project of sizeable scope, which will ensure that the users of ASA's genetic evaluation system will continue to benefit from the most advanced technology in the business.

The project was initiated on January 1st, 2014, via a two-year contract with Dr. Bruce Golden. Dr. Dorian Garrick is providing consultation on the project. Drs. Golden and Garrick updated ASA's board on the project at our April board meeting. Golden and Garrick provided another progress report to all in attendance at the September educational seminar. The project is on schedule and has already delivered much seminal advancement since its initiation. The end product will represent the greatest advancement in genetic evaluation software in many decades. The goal is to produce an IGS production run using the new software by January of 2016.

**Genomic Test Results Impact on EPDs:** The date of this report marks 33 months since ASA first added DNA to our EPDs. Though the first set of parameters generated by the 2011 Iowa State genomic analysis provided impressive predictive ability, because almost 2,000 new genotypes were added to the database since the first analysis, the decision was made to have Iowa State perform a new analysis in May of 2013. Compared to the first analysis, the 2013 analysis resulted in improved predictive ability for most traits. The improvement was expected, given the increased number of genotypes in the training population.

Since the 2013 analysis, there has been a dramatic increase in the number of genotypes available for training. The current database consists of over 35,000 genotypes from the various IGS partners, with over 22,000 of them coming from Sim-influenced animals. (Our cousins north of the border have been very helpful!) To leverage the information from the massive increase in genotypes, an analysis is currently underway, with the updated results planned to be incorporated very soon.

**IGS Common Base:** The ASA and RAAA boards approved the move to a common EPD base for their associations in 2012. Since that time, all but two of the current twelve IGS partners (American Maine Anjou and American Chianina) have elected to present their EPDs on that base. The common base enhances the industry's use of crossbreeding by allowing producers to easily compare seedstock across breeds and breed combinations.

**Update on Performance Advocate:** The performance advocate (PA) designation was established to increase data input and quality by publicly acknowledging breeders who achieve a high level of data submission on the following six traits: calving ease, birth weight, weaning weight, yearling weight, yearling hip height, and ultrasound or carcass measures. Increased data submission and more thorough recording will improve EPD accuracy on animals in our population, which will allow members to make better selection decisions. The PA program has been well received by ASA membership as evidenced by its rapid growth—the number of members achieving PA status has gone from 1 perfect score and 10 total advocates in its first year to 23 perfect scores with 80 total advocates in the current year. An informative article on PA participants is published in the Fall 2014 SimTalk.

**Carcass Merit Program:** The ASA carcass merit program (CMP) continues as the industry's largest and longest running structured sire-testing program. Over the last year, 1555 cows were AI'd to 34 sires in our population. The bulk of the 2014 CMP calf crop are currently on feed at Chappell Feedyard in Chappell Nebraska. Feedlot owner, Tom Williams, has a well-established record of feeding cattle and collecting data.

The ASA foundation has initiated a fundraiser with the goal of purchasing a Grow-Safe system to monitor individual feed intake on CMP cattle. One of the major deliverables of the project is to provide continuous collection of intake data on offspring of influential sires. When combined with genotypes, this data will provide the means of enhancing our prediction of intake via DNA. The fund's initial donation came from proceeds of the sale of a bull bred by Davis Ranch of Statesboro, GA. We welcome donations to this progressive cause.

**Docility EPDs:** Since its inception, in 2011, this program has grown rapidly. Members were asked to submit docility scores on weaned calves based on the Beef Improvement Federation chute scoring system, where "1" = docile, "2" = restless, "3" = nervous, "4" = flighty, "5" = aggressive, and "6" = very aggressive. Currently, over 100,000 docility scores have been submitted and docility EPDs are rapidly increasing in popularity. ASA performed a pilot evaluation on disposition for the American Gelbvieh Association (AGA) late in 2014. If the results are deemed viable by the AGA, they will publish disposition EPDs as well.

This concludes the Breed Improvement Report and I move that it be accepted into the Official Minutes of this Annual Meeting.

Calvin Drake, Chairman  
January 18, 2015