Changes in Red Angus Stayability EPD

by Larry Keenan, Director of Breed Improvement

RAAA and the Canadian Angus Association (CAA) have enjoyed a positive relationship that was solidified in 2002 when RAAA and CAA began merging their datasets for EPD calculations. Initially, CAA only provided data on their Red Angus animals, but as the use Black Angus animals increased in RAAA members' herds, CAA cordially provided RAAA with their Black Angus data as well. This data allowed us to do a better job in genetically describing RAAA and CAA animals with Black Angus in their pedigrees. Additionally, CAA benefitted through having larger contemporary groups, as many of their members raise both Red and Black Angus cattle in the same herd.

Unfortunately, this cooperative data-sharing relationship suffered a sizable setback in the Fall 2015 NCE when CAA elected not to provide RAAA with their Black Angus data and specifically declined RAAA's request to use the historical Black Angus data. As a result of this decision, Red Angus cattle with Black Angus in their pedigree lost significant data that was previously used in their EPD calculations. The traits most impacted in the Fall 2015 NCE were CED, CEM and HPG. These EPDs are calculated at Colorado State University, and are based only on the RAAA/CAA datasets.

In general, we saw Black Angus-influenced animals drop significantly in these EPDs and Accuracies. This result isn't surprising from a scientific standpoint, as when data drastically decreases, the animals migrate toward "0." As data on a population increases, more is known about the genetics of the population, thus the spread in EPDs increases across the population.

The growth and carcass EPDs weren't impacted by the removal of the CAA Black Angus data because those EPDs are calculated at International Genetic Solutions (IGS) using the RAAA, CAA, Simmental, Gelbvieh and Limousin datasets. The Simmental, Gelbvieh and Limousin associations contribute a significant amount of data on Black Angus animals, due to their active registration of hybrid animals.

In reviewing the Spring 2016 EPDs, members will notice significant changes in the Stayability EPD, especially on Black Angus influenced animals. After a thorough investigation, we have determined this is a direct effect of CAA withholding their Black Angus data. Due to methodology implemented at CSU that prevents loss of data in Stayability EPD calculations, the CAA Black Angus data that was included in the Spring 2015 NCE was indirectly used in the Fall 2015 Stayability EPD calculation. Thus, we did not see a major change in the Stayability EPDs with the Fall 2015 EPDs.

However, this historical Black Angus data was not used in the Spring 2016 Stayability EPD calculation, and as a result all cattle registered with RAAA and CAA have been negatively impacted. Similar to the changes in CED, CEM and HPG described in a previous paragraph, in the Spring 2016 NCE, we observed Black Angus-influenced

animals suffering unfavorable moves for Stayability. In addition, with the removal of the CAA Black Angus data, we have significantly less Stayability observations, which impacts all Red Angus animals through reducing the variation (spread) of Stayability EPDs in our population.

Red Angus' HerdBuilder Index has also been impacted by these EPD changes. While the impact from the changes in CED, CEM and HPG were noticeable, the change in Stayability has drastically impacted the HerdBuilder Index. The HerdBuilder is greatly impacted by Stayability, CED, CEM and HPG. Therefore, as the spread in those traits has decreased, so has the spread in the HerdBuilder.

Keep in mind that virtually all animals have migrated toward the average HerdBuilder value, therefore, while the HerdBuilder number may have changed, in many cases the percent rank on an animal is the same as it was previously.

The challenges this has had on RAAA members is fully recognized, and we are committed to acquiring Black Angus data in an effort to increase the reliability of all animals registered with RAAA.