THE DATA DIVE

by Esther Tarpoff, director of performance programs

Mature Cow Data: Are Your Females Represented?

The fall provides many opportunities for data collection, including recording mature weights and body condition scores on about 75% of Angus females.

As fall approaches, many producers are preparing to wean their spring-born calves. In fact, about 75% of the calves reported to Angus Herd Improvement Records (AHIR®) are born in the spring months. As a result, the fall provides opportunities for a lot of data collection, from weaning weights on calves, to mature weights and body condition scores on dams, to yearling data for the previous year's fall-born calves.

Big impact

For Angus members who wean calves in the fall months, there are critical data points for both calves and dams to be collected. This data not only provides herd management information for the breeder, but has the potential to inform multiple expected progeny differences (EPDs), such as weaning weight (WW), milk, mature weight (MW), or mature height (MH), and five of the dollar value indexes ($values) including maternal weaned calf value ($M) or beef value ($B).

Records kept around the time of calf weaning have incredible value for your operation from a management perspective. From knowing how many pounds a cow weaned off relative to her body weight, to how well cows maintained body condition while in production, to how many females were exposed and still maintaining a pregnancy — the information gathered at this time helps guide decisions for the next calf crop.

Annual records

Mature cow data such as weights, body condition scores, mature height, and foot scores can be collected on dams that wean a calf each year, starting with their first calf. Each of these annual records can be used to better inform mature cow traits and the respective $Values of which they are a component trait.

Looking to the data, there are fewer mature cow weights submitted each year than other weights such as birth, weaning or yearling. While more than 140,000 yearling weights are submitted each year, there are far less mature cow weights. Fortunately, yearling weight is used as an indicator trait for how large animals will be at maturity. While having actual cow weights with a body condition score and a hip height would be more informative, we do still have the opportunity for indication of how large animals will

be later in life with information from yearling weights.

This information, once submitted to AHIR and included in the weekly National Cattle Evaluation (NCE), is the most informative information for mature size EPDs. Last month, we looked at the most common reasons data is not included in the NCE for traits like birth and weaning. When it comes to mature cow data, such as weights or body condition scores, what are the most common reasons for the data to not be included in the NCE?

What excludes the data?

The most common issue for why mature cow data does not get included in the NCE comes down to missing data points. In order for a mature weight to be used, it must be accompanied by a body condition score, and vice versa. In fiscal year 2022, there were more than 12,000 body condition scores submitted to AHIR that did not have a mature weight. However, there were also more than 2,000 mature weights submitted that did not have a body condition score. Knowing a female is a body condition score of 6 is useful from a management perspective, but was she 1,000 pounds (lb.) or 1,600 lb. at that condition score? Together, body condition scores and mature weights give the best measurement to the mature size of a female.

Another key factor for mature cow data recorded around calf weaning is that the dam also reports the weaned calf to AHIR. If the calf is reported at birth but there is not a weaning date and weight, the dam's mature cow data does not have a calf to link to, and will be excluded from the NCE. It is most efficient from an analysis standpoint to measure mature cow size within +/- 45 days of weaning. This allows for the most consistent measurement of mature cow size across individual populations. Calf weaning weights can be measured when the calf is between 120 and 280 days of age. For calves to be eligible for the same contemporary group at weaning, they first need to be in the same birth contemporary group, but the calves' weaning weights also need to be collected within a three-day window.

As a busy time for data collection on your operation approaches, be prepared to make the most of your time and effort. The investment made to collect high-quality records helps set up your herd for the upcoming year and will affect generations to come. Increased data recording results in more accurate EPDs, which leads to more accurate $Values. More records also leads to more variation in the EPDs, because more data collection from differing environments helps to capture more variation for these traits. There is no doubt, the benefit of more accurately describing the population can outweigh the time and effort for data collection.

Table 1 includes a quick reference for data points that should be collected around weaning. Disposal reasons should be recorded throughout the year as they occur. The American Angus Association has a data collection guide available on *www.angus.org* for your reference to make the most of the records you keep. AJ

Table 1: ***Quick reference list of records at weaning***

Calf		Dam	
Individual weaning weight	Calf needs to be between 120 to 280 days of age	**Mature weight**	Both a mature weight and body condition score are required. Must be measured within +/- 45 days of calf weaning
Weaning date	Wean group within a three-day window to be eligible for same contemporary group	**Body condition score**	
Management code	1 – non-creep fed 3 – creep fed	**Mature height**	Optional, but highly recommended. Must be measured within +/- 45 days of calf weaning
Group code	Can be used to designate calves that need to be in different groups	**Disposal code**	Any females leaving the herd, record the reason and the date

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