Hair Shedding FAQ

ANGUS
THE BUSINESS BREED

What are hair shedding scores?

Early summer hair shedding is an indicator trait for heat tolerance and tolerance to fescue toxicosis. Hair shedding is evaluated on a 1-5 visual appraisal scale, where 5 is a full winter coat and 1 is completely slick. While there is some variability in shedding patterns between individuals, cattle tend to shed from front to back and top to bottom. So, compared to a 5 (0% shed), a 4 (25% shed) has lost her winter coat around her head and neck. A 3 (50% shed) has additionally lost hair along her topline and farther down her brisket. A 2 (75% shed) is usually only holding hair on her flanks and around her belly. Again, a 1 indicates 100% shed out.

Why are they important?

For producers in heat-stressed areas and producers grazing endophyte-infected (hot) fescue, hair shedding is an evaluation of environmental adaptability and cow performance. Cattle that shed their winter coat earlier in the season are less stressed and therefore can put the energy that might have gone to thermoregulation toward milk production and taking care of a calf. Using Angus data, it is estimated there is a moderate genetic correlation between a dam's hair shedding score and the weaning weight of her calf.

When is the best time to collect?

Hair shedding scores are usually collected between mid-April to mid-June. It is recommended that producers score cattle when they see the most variability in shed-off, which depends partly upon latitude (north vs. south). For most producers in the United States, this will be between early- and mid-May. In order to create large and accurate contemporary groups, producers should aim to score cattle on the same day or within a few days of each other.

How many scores were used in the original research? Where did the scores come from?

Since 2016, the University of Missouri has conducted the Mizzou Hair Shedding Project and has collected 8,041 scores on registered Angus cattle. This data was combined with 6,374 scores collected in 2011 and 2012 as part of other Angus Genetics Inc. (AGI) funded research projects to make up a total dataset of 14,465 scores from 8,642 cattle. Almost all data came from herds in the Southeast and Midwest subjected to heat stress and/or grazing toxic fescue.

How should I start collecting the data?

Scores should be collected when animals are starting to shed, but before the entire cow herd is completely shed off. In the Midwest, in most cases, the most variation in scores can be captured from mid-April and late-June.

How old do animals need to be for hair shedding scores to be useful?

Cattle should be at least yearlings when hair shedding scores are recorded. Age significantly affects hair shedding, with yearlings, 2-year-olds and 3-year-olds having higher average hair shedding scores than mature cows. For this reason, it's important that producers score their entire herd, so cattle can be sorted into large enough contemporary groups to account for age effects during the genetic evaluation. Multiple scores collected in an animal's lifetime can be sent into the Association. All scores, if in proper contemporary groups, can be added to the genetic evaluation to add accuracy to the EPD.

How many times should I collect a hair shedding score over an animal's lifetime?

When evaluating traits that use repeated records like hair shedding, the trait's heritability can be used to estimate how much each additional record is going to improve expected progeny difference (EPD) accuracy. Based on the heritability of hair shedding (~0.42 in Angus cattle), it is recommended to aim for at least three years of data. However, additional data will never be detrimental, and ideally, producers will record hair shedding scores every year on their whole herd.