

HAIR SHEDDING SCORES

A TOOL TO SELECT HEAT TOLERANT CATTLE



MAKE YOUR COWHERD WORK FOR YOU

One tool beef producers in heat-stressed environments and producers grazing toxic endophyte-infected (hot) fescue can use to easily evaluate their “employees” is early summer hair shedding scoring. Early summer hair shedding is an adaptive trait and an indicator of tolerance to heat stress and fescue toxicosis: late shedders have depressed growth and depressed reproductive success.



HAIR SHEDDING AND COW PRODUCTIVITY



Preliminary hair shedding genomic EPDs show a clear relationship with cow performance. After normalizing for calving season, calf birth date, calf sex, and farm effect, we find ~14 pound average increase in calf weaning weight with every point decrease in hair shedding EPD (i.e., dams with better hair shedding scores tend to wean heavier calves than those with worse hair shedding scores).



EASE OF SCORING

Addressing heat stress and fescue toxicosis from the animal side is not costly nor time consuming. Cattle can be scored in the pasture or chute-side.

HAIR SHEDDING IS HERITABLE

Estimates of hair shedding heritability range from 0.38-0.40. This means that genetic progress can be made by culling cattle with undesirable hair shedding scores.



MIZZOU HAIR SHEDDING PROJECT

As part of a broader effort to identify beef cattle well-suited to their environment, producers enrolled in the Mizzou Hair Shedding Project collected over 12,000 hair shedding scores in 2016 and 2017, with 2018 and 2019 scores forthcoming. Most of these cattle have been DNA tested. These data are being used to create a hair shedding score EPD for the evaluation of adaptation to heat and fescue toxicosis.



Thanks to participating producers!

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Hair shedding scores are most informative when variability between individuals in the herd is highest. In southwest Missouri, producers should score cattle in early May. Hair shedding is scored from 1-5 where 5 is a full winter coat and 1 is completely slick.

SCORE 5

0% shed off
(full winter coat)

Overall, hair shedding scores tend to be normally distributed. This means that scores of 1 and 5 tend to be much less common than scores of 2, 3, and 4.



SCORE 4

25% shed off

As a general rule, cattle tend to shed hair from front to back and top to bottom. So, a hair shedding score 4 will usually have shed only on her neck.



SCORE 3

50% shed off

There is some variability in the order of hair shedding from individual to individual.



SCORE 2

75% shed off

A hair shedding score 2 usually has hair remaining only on the belly and lower hindquarters.



SCORE 1

100% shed off
(completely slick)

A hair shedding score 1 is completely slick with no remaining winter coat.

