

Suggested Values – breed tables / ranges / explanations

MOTIVATION:

While the Tennessee Agricultural Enhancement Program (TAEP) sets requirements for certain growth & calving ease traits and indexes, there are numerous other traits that have major economic importance to herds. In the past, TAEP reported suggested EPDs for some traits of emerging or continued economic importance for educational purposes. A particular focus has been placed on traits that have outsized impacts on Tennessee's beef herds. These suggested threshold values are set using multiple pieces of information, including breed information from the US Meat Animal Research Center's Germplasm Evaluation herd. It is important to remember that differences in EPD suggestions for each breed are not necessarily an indicator of one breed being superior to another for a given trait, but rather an artifact of the genetic evaluations.

In this document we suggest thresholds and ranges of EPDs for three different traits that widely reported by many breeds' genetic evaluations and are important for Tennessee cow-calf enterprises. These include Mature Weight, Docility, and Maternal Milk.

These suggestions are NOT requirements for qualification in the TAEP Genetics Program.

SUGGESTED: *Suggested Maximum Mature Cow Weight GE-EPD:* Selecting for bulls with a Mature Cow Weight GE-EPD (Gelbvieh: MW, Angus: MW, Hereford: MCW, Brangus: Cow Weight) lower than the maximum *suggested* value may help producers maintain moderate mature cow sizes. Continued selection for increased growth generates correlated response to mature cow size, a trait that is directly related to maintenance energy needs. In the absence of predictions for forage intake, moderating mature size is the optimal tool for balancing cow feed costs.

SUGGESTED: *Suggested Minimum Docility GE-EPD (Doc):* Selecting for bulls with a DOC GE-EPD higher than the minimum *suggested* value may improve or maintain disposition. Beyond its critical importance for safe animal handling, docility also impacts animal performance and well-being. This EPD threshold may not improve already sufficient docility but should avoid introducing genetics that produce unfavorable dispositions.

SUGGESTED: *Suggested Milk GE-EPD range:* Selecting for bulls with Milk GE-EPD within the *suggested* may produce replacement females with sufficient milk production to raise calves while keeping maintenance costs in check. Milk production is energetically expensive, but necessary for generating calf weight gain. This EPD range attempts to balance maternal contributions to calf weaning weight and maintenance costs.

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Suggested Values – Breed Tables & Ranges

Breeds with Mature Cow Weight EPD

Referring to Breed Percentile Distribution Tables, please be aware: Angus & Gelbvieh EPD are distributed in 1 direction on the table; Hereford & Brangus EPDs are distributed the opposite way.

<u>ANGUS</u>	
Mature Weight (maximum)	MW EPD $\leq$ 97
Docility (minimum)	Doc EPD $\geq$ 14
Milk (range)	Milk EPD range: 20 - 33

<u>GELBVIEH/BALANCER</u>	
Mature Weight (maximum)	MW EPD $\leq$ 153
Docility (minimum)	Doc EPD $\geq$ 11
Milk (range)	Milk EPD range: 17 - 28

<u>HEREFORD</u>	
Mature Cow Weight (maximum)	MCW EPD $\leq$ 112
Milk (range)	Milk EPD range: 20 - 33

<u>BRANGUS/ULTRABLACK</u>	
Cow Weight (maximum)	CW EPD $\leq$ 8
Milk (range)	Milk EPD range: 4 - 13

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Breeds with Docility EPD (in addition to Angus & Gelbvieh/Balancer)

<u>SIMMENTAL/HYBRID</u>	
Docility (minimum)	Doc EPD $\geq$ 10
Milk (range)	Milk EPD range: 18 - 29

<u>BRAUNVIEH</u>	
Docility (minimum)	Doc EPD $\geq$ 10
Milk (range)	Milk EPD range: 10 - 20

<u>BLACK HEREFORD</u>	
Docility (minimum)	Doc EPD $\geq$ 11
Milk (range)	Milk EPD range: 21 - 30

<u>CHAROLAIS</u>	
Docility (minimum)	Doc EPD $\geq$ 8
Milk (range)	Milk EPD range: 17 - 30

<u>LIMOUSIN/LIM-FLEX</u>	
Docility (minimum)	Doc EPD $\geq$ 11
Milk (range)	Milk EPD range: 20 - 30

<u>CHIANINA/CHIANGUS</u>	
Docility (minimum)	Doc EPD $\geq$ 8
Milk (range)	Milk EPD range: 10 - 20

<u>SALERS/OPTIMIZER</u>	
Docility (minimum)	Doc EPD $\geq$ 5
Milk (range)	Milk EPD range: 9 - 22

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Additional Breeds with Milk EPD range

<u>RED ANGUS</u>	
Milk (range)	Milk EPD range: 21 - 30

<u>SHORTHORN</u>	
Milk (range)	Milk EPD range: 17 - 26

<u>BEEFMASTER</u>	
Milk (range)	Milk EPD range: 7 - 12

<u>SANTA GERTRUDIS</u>	
Milk (range)	Milk EPD range: -4 - 4

<u>SENEPOL</u>	
Milk (range)	Milk EPD range: 1 - 8

<u>WAGYU</u>	
Milk (range)	Milk EPD range: -5 - 3

<u>MAINE ANJOU/MAINE-TAINER</u>	
Milk (range)	Milk EPD range: 14 - 25