

# BY THE NUMBERS

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## Making the Most Out of \$M

*Earlier this year the American Angus Association released a new maternal dollar value index (\$Value), maternal weaned calf value (\$M). The \$Value aims to predict pre-weaning profitability and includes traits that affect the profitability of the commercial cow-calf herd from conception to weaning.*

The underlying breeding objective being that a commercial producer will replace 25% of their breeding females in the first generation and 20% of their breeding females in each subsequent generation with replacement heifers retained from within the herd. The rest of the cull female and male progeny are presumed to be sold as feeder calves with the assumption that commercial producers get no economic benefit from postweaning traits.

Nine traits directly affect this index including calving ease direct (CED) and maternal (CEM), weaning weight (WW), maternal milk (Milk), docility (DOC), heifer pregnancy (HP), mature cow weight (MW), foot angle (Angle) and claw set (Claw).

Since the release of \$M, many producers have asked, “How do I get the most out of the \$M index?”

The answer to this question is simple — record!

In order to increase the accuracy and efficiency of \$M for individual herds, members need to be sure they are recording the necessary phenotypes to increase the accuracy of the underlying traits. Most producers do a great job of recording all their weaning weights in their

herd and that pays dividends to increase accuracies of two very important traits in \$M, WW and milk expected progeny differences (EPDs).

In fact, members of the Association have sent in more than 9.2 million weaning weights over the years through the Angus Herd Improvement Records® (AHIR®) program, which is beyond impressive. However, when we start to look at mature cow weights, docility scores, heifer pregnancy records or foot scores, members have recorded just over 220,000, 298,000, 100,000 and 20,000 of these observations, respectively, to date.

One must realize that the recording and scoring systems for these traits haven’t been around nearly as long as a trait like weaning weight. Nonetheless, in order to take full advantage of the \$M index and all it can possibly do to aid in selecting profitable individuals for the pre-weaning sector, increased data recording is imperative.

Increased data recording results in more accurate EPDs. More accurate EPDs leads to more accurate \$Values. More data recording also leads to more variation in EPDs because more data collection from differing


environments helps to capture more variation for these traits. More variation increases the spread of these EPDs allowing producers to find the very best animals for each individual trait and in return the very best animals for individual \$Values.

While additional data collection, no doubt, takes additional time and effort, one could consider that the benefits of more accurately and objectively describing the cow herd can clearly outweigh the costs of data collection. In Figure 1, one can see the parameters surrounding data collection of these maternal traits.

### Why take the extra step?

One may ask for example, “Why is it important to collect mature height (MH) if it is not included in the index?” Mature height (MH) is correlated (or has a relationship) to mature weight, meaning the variation captured in MH helps us further explain the differences in MW and vice versa. The more holistic data collection members can capture across the board not only increases the accuracy of the \$Values, but also continues to validate the genomic predictions and EPD accuracy.

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All in all whatever one's motivation may be, good, honest performance data collection and accurate pedigree recording will always be crucial when it comes to accurate genetic selection tools. For more information about AHIR® performance recording of any kind feel free to contact the Performance Programs Department at 816-383-5100. 



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*Editor's note: If you have questions on these new EPDs, please contact the Performance Programs department at 816-383-5100.*

**Figure 1: AHIR guidelines to submitting data.**

Traits	Guidelines
Heifer Pregnancy Observation	<ul style="list-style-type: none"> <li>- Record all AI service sires and dates, or pasture exposed sires and dates</li> <li>- Report pregnancy check data (if taken)</li> </ul>
Mature Cow Weight	<ul style="list-style-type: none"> <li>- Taken within +/- 45 days of calf weaning date</li> <li>- Body condition score (1-9) must be recorded</li> <li>- Must record a calf weaning weight</li> </ul>
Mature Cow Height	<ul style="list-style-type: none"> <li>- Taken within +/- 45 days of calf weaning date</li> <li>- Body condition score (1-9) must be recorded</li> <li>- Must record a calf weaning weight</li> </ul>
Docility	<ul style="list-style-type: none"> <li>- Collect 320-440 days of age</li> <li>- Scores; 1 - docile, mild disposition; 2 - restless, quieter than average; 3 - nervous, typical temperament is manageable; 4 - flighty, wild, jumpy and out of control; 5 - aggressive, added aggressive behavior; or 6 -very aggressive and extremely temperamental</li> <li>- Scores should be taken as the animals are exiting the chute or lofting in a pen</li> <li>- Be consistent with the entire group</li> </ul>
Foot Score	<ul style="list-style-type: none"> <li>- Collect at 12-18 months old or on mature females</li> <li>- Can be taken at yearling age or older</li> <li>- Multiple foot scores can be collected and used in the evaluation</li> <li>- Be consistent with the entire group</li> </ul>
Weaning Weight	<ul style="list-style-type: none"> <li>- Collect between 120-280 days of age</li> <li>- Individual weights should be recorded on the entire weaned group on the same day</li> <li>- Contemporary groups: management codes, creep vs. non-creep fed and group code (additional codes if calves managed differently)</li> </ul>