

# BY THE NUMBERS

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## New Foot Structure EPDs: Claw Set and Foot Angle

*This June, producers will start to see two new foot structure expected progeny differences (EPDs) appear on performance certificates. These EPDs come after years of data collection and research on foot structure traits.*

The foot scores range from 1-9 with 5 being an ideal score for both claw set and foot angle. Foot scores can be collected on animals as early as one year of age; however, producers are encouraged to continuously collect foot scores on older females. The foot scoring guide can be found at [www.angus.org/performance/footscore/footscoreposter.pdf](http://www.angus.org/performance/footscore/footscoreposter.pdf).

Since the inception of the foot scoring system, nearly 20,000 scores have been collected for both claw set and foot angle. Initial research has shown both of these traits have a heritability estimate of 0.25, which is similar to weaning weight, meaning genetic selection for improvement of these traits can take place. Foot score EPDs have been in a research environment for the past 16 months. This process allowed for continued data collection and several months of validation on the stability and accuracy of the genetic predictions.

Producers should remember EPDs reflect only the current data included in the database. For instance, currently not enough phenotypes (records) have been reported in the 1-4 categories for either foot angle or claw set to be valuable for the genetic evaluation. Only 5-9 scores for both foot angle and claw set are used in this EPD evaluation. However,

### Foot Angle: 5 is ideal



### Claw Set: 5 is ideal



it's important producers continue to use the whole 1-9 scale when scoring feet to make sure animals are characterized correctly. In the future if enough data in these 1-4 categories are reported, it may merit inclusion into the future evaluations.

### Foot scores, defined

**Claw set EPD (Claw)**, is expressed in units of claw-set score, with a lower EPD being more favorable indicating a sire will produce progeny with more ideal claw set. The ideal target for claw set being toes are symmetrical, evenly and appropriately spaced.

**Foot angle EPD (Angle)**, is expressed in units of foot-angle score, with a lower EPD being more favorable indicating a sire will produce progeny with more ideal foot angle. The ideal targeting animals with a 45-degree angle at the pastern joint with appropriate length and heel depth.

Currently, breed average for both

of these traits is 0.5. This means an animal with EPDs less than 0.5 can be considered a “breed improver” for that trait. When using these two new EPDs, these tools should be used to compare bulls to each other. For example, Bull A has a +0.5 claw set EPD and Bull B has a 0.0 claw set EPD. Bull B's progeny, on average, would be predicted to score half a score better on the 5-9 scale for claw set compared to Bull A's progeny.

In addition to being released, these two foot score EPDs will also be included in the new maternal weaned calf value (\$M) index that predicts profitability from conception to weaning. **AJ**

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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.*