

# Angles and Claws

American Angus Association taking steps toward skeletal structure EPD.

by **KINDRA GORDON**, field editor

Collecting foot score data for development of a future skeletal structure expected progeny difference (EPD) as a selection tool is a “top priority” for the American Angus Association, said Kelli Retallick as she addressed producers attending an Angus University workshop offered during the 2017 Angus Convention hosted Nov. 4-6, 2017, in Fort Worth, Texas. Retallick is genetic service director with the Association’s Angus Genetics Inc. (AGI).

“We know we have to build a strong foundation for our females,” Retallick stated, referencing the need to evaluate foot and leg structure. She shared that since the Association began asking for foot scores in 2014, 12,000 foot scores had already been added to its database. The Association was anticipating releasing a research EPD in 2018 (see “Association Link,” page 10, for announcement).

Foot scoring is done by observing two measurements — foot angle and claw set. The Association has developed a visual guide for these measurements, scoring on a scale from 1 to 9, with 5 being ideal for both measurements. View the guidelines at [www.angus.org/performance/footscore/](http://www.angus.org/performance/footscore/)

“If we are going to continue to accelerate the growth of cattle, then there is an increasing need for skeletal correctness,” Ryan Rathman noted.



PHOTOS BY ERIC WULL, COURTESY AMERICAN ANGUS ASSOCIATION

*footscoreposter.pdf*. Scoring should be done on a hard surface, while animals are standing still. When there is variation among an animal’s feet, the worst foot should be scored.

Regarding foot angle, Retallick

explained, a 45° angle at the pastern joint is ideal. There should also be appropriate length of toe and depth of heel. Animals that are extremely straight in their front end and up on their toes would score a 1, while an animal with a shallow heel and

extremely long toes would score a 9.

For claw set, symmetrical claws with appropriate space between claws is ideal. Animals scoring a 1 for claw set would have extremely weak, open or divergent claws; animals with extreme scissor claw

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Skeletal traits are highly heritable, with mature height being 65% heritable, noted Rathmann. “Bones are largely determined by genetics, so this is extremely important to select for.”

with the curling and crossing of both claws would score a 9.

It is recommended that scoring of bulls and females be done at yearling time. Retallick explained this is because it's the last time a group of bulls will likely be together. Producers are also encouraged to collect foot scores on mature females, and on large groups of 18-month-old or 2-year-old bulls.

Also addressing producers on the importance of skeletal correctness during the Angus University workshop was Ryan Rathmann, an animal science professor and livestock judging coach at Texas Tech University.

“If we are going to continue to accelerate the growth of cattle, then there is an increasing need for skeletal correctness [to support that weight],” he noted. “If you don't make the skeleton right, the animal will have a difficult time living up to its genetic potential for all the other traits you select for.”

Particularly for seedstock producers, foot score and skeletal correctness are traits not to be ignored, Rathmann emphasized. “If you are servicing the industry, you need to strive for perfection because of the progeny that

goes into other herds.”

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Retallick shared that foot angle is 34% heritable, while claw set is 21% heritable.

In February 2017, the Association announced a partnership with

participating universities to assess foot structure on behalf of breeders who seek help in assessing their herds. The new service allows animal science students and judging team participants to collect foot scores as they visit Angus operations. It is available to all Association members. Compensation is voluntary and at the discretion of breeders.

The list of collaborating universities is

available at: [www.angus.org/performance/footscore/footscoreentryhelp.pdf](http://www.angus.org/performance/footscore/footscoreentryhelp.pdf).



**Editor's Note:** Kindra Gordon is a freelance writer and cattlemaster from Whitewood, S.D. This article is part of Angus Media's coverage of the 2017 Angus Convention available online at [www.angus.org/Media/News/AngusConvention.aspx](http://www.angus.org/Media/News/AngusConvention.aspx).

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BW	WW	YW	ADG	DMI	SC	HP	MILK	CW	Marb	RE	SW	SF	SB
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