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21ST CENTURY GENETICS: RISING TO THE CHALLENGE SOUTHERN STYLE

Committee Focuses on Stayability

by Micky Wilson



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PHOTO COURTESY RED ANGUS ASSOCIATION OF AMERICA

Producers seeking stayability, look for fertility, udder quality, soundness, progeny performance, ease of maintenance/management and disposition, said Larry Keenan, of the Red Angus Association of America.

CHOCTAW, MISS. (April 20, 2006) — Wade Shafer, American Simmental Association, kicked off the Cow Herd Efficiency and Adaptability Committee meeting at the 2006 Beef Improvement Federation (BIF) annual conference by discussing the implementation of expected progeny differences (EPDs) for stayability.

Shafer defined stayability as the probability daughters entering the herd would stay in production through 6 years of age. Traits affecting stayability, Shafer said, are fertility, survivability, structural soundness, disposition, productivity, polledness, color and color pattern.

"My best guess is that a good share of the difference we see in stayability is due to fertility," Shafer observed.

The most effective way to genetically improve stayability in cattle is by crossbreeding, Shafer said. He supports all-breed EPDs. Without EPDs, little, if any, progress can be made in low-heritability traits. Longevity, or stayability, has low heritability, with estimates running between 0.05-0.20. In addition, stayability is a trait expressed later in life.

"Technically, we don't have a record for longevity on a cow until she is gone," Shafer said. Current options for producers wanting to increase stayability in their cow herds, though sometimes tough since bulls are generally aged by the time their daughters reach a point an EPD can be established, are to use a sure-bet "old man" bull, or use several young, promising sires.

Red Angus perspective

The Red Angus breed was the first to adopt stayability EPDs, doing so in 1993, shared Larry Keenan of the Red Angus Association of America. Keenan's definition of stayability coincided with Shafer's.

Ninety-five percent of Red Angus bulls are sold to commercial cattlemen, Keenan said. These particular producers seek traits that lead to stayability, including fertility, udder quality, soundness, progeny performance, ease of maintenance/management and disposition.

After working with stayability EPDs for 10 years, Keenan said, some weaknesses have been identified.

The extended timeframe to prove bulls is a big one. In addition, stayability EPDs don't account for reproduction each year, and reasons for culling females are not named.

Outweighing weaknesses, strengths of stayability EPDs are found in using it as a tool to increase profits, calculating EPDs using total

herd records (THR), and using it as an indication of reproductive merit.

"Failure to reproduce," Keenan said, "is the number one reason for culling."

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— Larry Keenan**

Alternative definitions

Colorado State University's Brain Brigham presented alternative definitions of stayability.

Concerns arose with stayability EPDs, Brigham said, because sires remain low-accuracy until their daughters reach the 6-year-old benchmark. Producers have indicated that if a cow calves as a 4-year-old, she has a high probability of con-

ceiving as a 5- and 6-year-old; and culling cows on the basis of nonreproductive reasons affects the interpretation of stayability.

“Snelling ... reported heritabilities for stayability for ages 3, 6, 9 and 12 years in two purebred herds,” Brigham reported. Estimates revealed that, in fact, stayability to 6 years of age had a sufficiently high

heritability and represented the break-even price for a cow. This led to its adoption as the general definition of stayability in many national cattle evaluations.

Still, Brigham said he looks for more research in the future. “A younger definition of stayability may alleviate some problems associated with current definitions.” 