

2007 Beef Improvement Federation 39th Annual Meeting

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Cow Herd Efficiency

Committee discusses cow efficiency and PAP heritability.

Story & photos by **Troy Smith**

FORT COLLINS, COLO. (June 8, 2007) — The Beef Improvement Federation's (BIF's) Cow Herd Efficiency & Adaptability Committee met June 8 during the organization's 39th annual meeting. The subcommittee announced its attention to create guidelines for data collection associated with research attempting to measure feed efficiency on the basis of feed intake.

Denny Crews, national study leader for Agriculture and Agri-Foods Canada, explained the group's desire to identify and recruit sources of data, primarily through research projects and central bull tests. Crews said plans for the coming year include defining and refining criteria such as test length, diet specifications and applicable hardware and software.

Crews also addressed the need for a measurement of feed efficiency and maintenance energy in cows. To date, he said, the majority of research has addressed feed efficiency in bulls and feeder steers.

"We need a robust measurement of efficiency — one that could be applied across animal type," stated Crews, adding that residual feed intake (RFI) is favored since it has been a good trait predictor of feed

efficiency in the feedlot. "In my opinion, RFI stacks up well, due to its direct effect on cost and favorable heritability (ranging from 0.32 to 0.41). There is little genetic antagonism, and it can be measured early in life."

Crews said another positive aspect is the considerable genetic variation that exists for RFI. Therefore, breeders should expect response to RFI-based selection for lower cow feed requirements. Based on previous RFI research, it is expected that selection can be made independently of other traits, avoiding antagonism with reproduction and cow longevity.

Crews offered no promise that RFI is the definitive answer to measuring cow efficiency, however. It is possible, he said, that RFI in cows is not the same trait as it is exhibited in steers.

Also on the agenda was Konni Shirley, Colorado State University, who presented an update on research related to cardiopulmonary edema. Also called high mountain



► Konni Shirley, Colorado State University



► Denny Crews, Agriculture and Agri-Foods Canada

disease or brisket disease, the malady affects cattle in high-elevation environments.

Pulmonary arterial pressure (PAP), or blood flow resistance, is a measure and reliable predictor of animal susceptibility. According to Shirley, there is a heritable component of PAP, and studies suggest genetic heritability of 0.34.



Look for the PowerPoint and audio file for these presentations in the newsroom.



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