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2006 BIF Annual Meeting and Research Symposium



21ST CENTURY GENETICS: RISING TO THE CHALLENGE SOUTHERN STYLE

Temperament Matters

by Micky Wilson

Committee addresses scrotal circumference, temperament and the health and healthfulness of beef.

CHOCTAW, MISS. (April 19, 2006) — The Live Animal, Carcass and End Point Committee featured four speakers Wednesday afternoon at the 2006 Beef Improvement Federation (BIF) meeting. The annual event was April 18-21 in Choctaw, Miss.

Taking SC measurements

Janice Rumph, Montana State University, started the meeting with a short presentation comparing measuring scrotal circumference (SC) of bulls at a specific age or at a specific weight.

“For the most part,” she surmised, “it does not matter whether we adjust to a constant age or a constant weight.”

Temperament and carcass quality

Rhonda Vann, Mississippi State University, followed with a presentation comparing carcass quality and temperament of cattle. Subjective measurements of pen temperament and chute temperament scores, and objective measurements of chute exit velocity were established. The study correlated levels of cortisol, the stress hormone, to subsequent Warner-Bratzler shear force (WBSF) values.

Conclusions of the study revealed that when exit velocity and pen scores were high, WBSF values were also high. There was no link between temperament and breed of cattle. Data were collected over a three-year period.

“Cattle with wilder temperaments exhibit lower weight gain, produce tougher meat and yield increased amounts of bruise trim due to injuries acquired during transportation,” Vann concluded.

Temperament and gain:

Robert Weaber, University of Missouri, also presented information pertaining to disposition, primarily correlating it to postweaning gains of calves. Pen temperament scores and exit velocity were collected for this trial.

Weaber found a chute exit velocity heritability of 0.4-0.5. He also found that cattle with faster exit velocities had poorer gains.

“Exit velocity was really the only significant source of variation that accounted for differences in weight gain,” Weaber said. Every 1 second increase in exit velocity correlated to 12 pounds in reduced gain over the test period.

Health and healthfulness of beef

James Reecy, Iowa State University, concluded the committee meeting with words about health and healthfulness of beef.

Starting with disease resistance, Reecy talked about pinkeye. After looking for ways to reduce the occurrence of the disease, Reecy said, genetic selection was flagged as a fix and studied. At the conclusion of the trial, it was revealed that pinkeye has low to moderate heritability, at 0.18-0.2. Animals exhibiting pinkeye weighed 33 pounds (lb.) less than those not affected by the disease. The Hereford breed was shown to be most susceptible to pinkeye.

Reecy said it would appear that by selecting calves based on a scoring system for treatment or corneal scarring, producers could select for calves that have resistance to pinkeye, which should translate to improved weaning weights.

In the second part of his presentation, Reecy addressed the healthfulness of beef, explaining that there is a genetic component and an environmental component. The question was, how much did each component represent, and is that component contributing to obesity?

Ideally, Reecy said, people should increase their consumption of monounsaturated and polyunsaturated fats compared to other fats. But, people must also be careful not to go over calorie requirements to attain those fats.

