

**Effect of percentage Angus on feedlot performance and carcass traits in beef calves.** W.D. Busby<sup>1</sup>, L.R. Corah<sup>2</sup>, M.A. McCully<sup>2</sup>, and M.E. King<sup>2</sup> <sup>1</sup>*Iowa State University, Ames, IA;* <sup>2</sup>*Certified Angus Beef LLC, Wooster, OH.*

Calves (n=18,250) from 15 states (ten in the Southeast and five in the Midwest) fed at ten Iowa feedlots through the Iowa Tri-County Steer Carcass Futurity (2002-07) were used to evaluate the effect of percentage Angus in each calf on feedlot performance and carcass traits. A common diet was fed and consistent implant and health programs were administered to all calves. Each calf was categorized into four classifications [Low Angus (L) (n=4,767), Half Angus (H) (n=3,684), Three-quarter Angus (3/4) (n=3,460), and Straight Angus (S) (n=6,339)] based on the breed information of its dam and sire. Calves were harvested when visually evaluated to have one centimeter of fat cover. Percentage Angus, arrival weight (kg), final weight (kg), and ADG (kg/day) were 9.5, 290.0, 538.7, and 1.41; 48.9, 288.2, 537.9, and 1.47; 73.5, 288.0, 533.5, and 1.45; and 98.8, 285.5, 529.7, and 1.49 for L, H, 3/4, and S, respectively. Percentage Angus and ADG for each classification were significantly different from all other classifications (P<0.05). Morbidity rate (%), treatment cost (\$/head), and mortality rate (%) for the L, H, 3/4, and S calves were 22.84, 7.77, and 1.85; 15.72, 5.44, and 1.33; 15.69, 5.48, and 1.39; and 14.78, 4.60, and 1.48, respectively. Morbidity rate and treatment costs were different (P<0.05) between high and low percentage Angus calves. The percentage Prime, Choice, Select, and Standard quality grades were 0.26, 52.45, 42.17, and 5.12; 0.50, 69.54, 27.89, and 2.07; 1.09, 71.87, 25.27, and 1.77; and 2.27, 81.69, 15.36, and 0.69 for the L, H, 3/4, and S calves, respectively (P<0.05). Acceptance rates for black-hided calves eligible for the *Certified Angus Beef*<sup>®</sup> Program were 9.51, 17.74, 18.96, and 29.61 percent for the L, H, 3/4, and S groups, respectively (P<0.05). Yield grades for L, H, 3/4, and S carcasses were 2.56, 2.80, 2.90, and 3.00, respectively (P<0.05). Feedlot performance, health, and carcass merit were positively influenced by the percentage of Angus in the calves.

**Key Words:** Percentage Angus, Health, Feedlot and Carcass Performance