Effect of health on feedlot performance and carcass traits in beef calves. W.D. Busby[1], D. Strohbehn[1], L.R. Corah[2], and M.E. King[2] [1]*Iowa State University, Ames, IA*; [2]*Certified Angus Beef LLC, Wooster, OH.*

Calves (n=27,538) from 15 states fed at ten Iowa feedlots in the Iowa Tri-County Futurity (2002-07) were used to evaluate effect of health on feedlot performance and carcass traits. A common diet and similar implant and health programs were administered to all calves. Calf health was classified by treatment as No (NT; n=22,830), Single (ST; n=3,080), or Two or More (2T; n=1,628). Predominant cause of treatment was respiratory problems. At harvest, presence of trimable adhesions from rib cage was classified as Yes (Y; n=1,105) or No Adhesion (N; n=25,861). Calves were sorted and harvested when visually evaluated to have one centimeter fat cover. Effect of independent factors on continuous outcomes was performed using analysis of variance with means separated by Tukey-Kramer test. Percentages were analyzed using the Mantel-Haenszel chi-square analysis. Feedlot final weight (kg), ADG (kg/day), and days on feed for NT, ST, and 2T calves were 537, 1.46, and 170; 525, 1.39, and 179; and 519, 1.34, and 183, respectively ($P<0.001$). The percentage of Prime, Choice, Select, and Standard carcasses for NT, ST, and 2T were 1.2, 70.3, 26.6, and 2.0; 0.6, 61.1, 34.5, and 3.9; and 0.7, 52.7, 37.7, and 8.8, respectively ($P<0.05$). Treatment cost ($/head) and mortality rate (%) for NT, ST, and 2T were 0 and 0.1; 23.40 and 5.49; and 54.07 and 14.13, respectively ($P<0.001$). Feedlot ADG; percent Prime, Choice, Select, and Standard for carcasses with lung adhesions N or Y were 1.45, 1.1, 68.7, 27.8, and 2.5; and 1.36, 0.6, 59.9, 34.7, and 4.8, respectively ($P<0.05$). Morbidity rate (%) and treatment costs ($/head) for N and Y carcasses were 15.2 and 4.63; and 26.9 and 9.90, respectively ($P<0.001$). *Certified Angus Beef* ® acceptance rate of eligible black-hided calves for NT, ST, and 2T carcasses was 21.4, 17.2, and 14.8, respectively ($P<0.001$) and for N and Y carcasses was 20.9 and 14.8, respectively ($P<0.001$). Cattle treatment and presence of lung adhesions negatively impacted feedlot performance and carcass quality.

Key Words: Health, Lung Adhesions, Feedlot and Carcass Performance