

Effect of lung adhesions on feedlot performance, carcass traits and profitability of beef calves fed in the Iowa Tri-County Steer Carcass Futurity. G.D. Fike¹, L.R. Corah¹, M.E. King¹ and W.D. Busby², ¹Certified Angus Beef LLC, Wooster, OH, and ²Iowa State University, Ames, IA.

Beef calves (n=47,048) fed at 18 Iowa feedlots through the Iowa Tri-County Steer Carcass Futurity over eight years (2002-09) were used to evaluate the effect of lung adhesions on feedlot performance, carcass traits and profitability. A common diet was fed and similar implant and health programs were administered to all calves. Calves were sorted and harvested when visually determined to have one cm of fat cover. Evidence of lung adhesions was visually determined at harvest in the abattoir. Unless otherwise stated, each pair of means for each outcome was different ($P < .0001$). Calves whose carcasses had evidence of lung adhesions (LA) had a 2.2 times greater health treatment rate and a higher health treatment cost per head than calves without lung adhesions (WO; 5.29 vs. 12.23 USD). WO calves had heavier mean delivery and adjusted final weights and were on feed for fewer days than LA calves (292.4 vs. 288.7 kg; 534.5 vs. 527.3 kg; and 169 vs. 176 d, respectively). WO calves gained weight at a higher rate than LA calves (1.45 vs. 1.37 kg/d), but lung adhesions had no effect on F:G ($P = .1005$). The mean HCW of WO calves was 9.9 kg heavier than LA calves. WO calves also had more rib fat (1.13 vs. 1.08 cm) and larger ribeye areas (79.94 vs. 78.52 cm²) compared with LA calves. Marbling score (400=Sm⁰) was greater in WO calves at 426.6 than in LA calves at 410. Lung adhesions reduced the *Certified Angus Beef*® (CAB®) acceptance rate in black-hided Angus-type calves (12.46 vs. 18.12%). Cost of gain was lower (1.39 vs. 1.48 USD/kg gain) and profit was higher (45.27 vs. 1.65 USD/hd) in WO calves compared with LA calves. Calves with evidence of lung adhesions after harvest had higher health treatment costs, poorer feedlot performance, lighter final live and hot carcass weights, lower marbling scores and made less money than those who did not.

Key words: lung adhesions, feedlot performance, carcass traits