

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, ²Iowa Tri-County Steer Carcass Futurity

2010 Midwest ASAS



The brand that pays.®



Introduction and Background

- Steers with lung lesions had lower ADG, HCW, less internal fat and lower MS (Gardner et al., 1999)
- Incidence of BRD in the feedlot decreased ADG. Cattle treated for BRD had lighter HCW and lower MS. The presence of lung lesions did not have a significant effect on performance and carcass traits. However, lungs scored 5 (presence of active bronchial lymph nodes) significant differences were detected (Schneider, et al., 2009)



The brand that pays.®



Current Study

- Lung adhesions require a knife to remove the lung tissue from the ribcage of the carcass
- Easily recognizable when collecting carcass data
- Lung scoring without handling the lung may result in misclassification of the lung
- Determine the effect presence of lung adhesions at harvest time has on carcass quality and previous feedlot performance



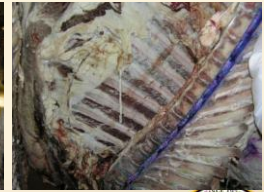
The brand that pays.®



Lung Adhesions

No Lung Adhesion

Lung Adhesion



The brand that pays.®



Materials and Methods

- Data analyzed on 47,048 head of cattle fed in 18 Iowa feedlots over eight years (2002-2009)
- All cattle were fed a common dietary energy level and administered similar health and implant treatments
- All cattle were weighed, sorted, vaccinated, implanted and body conditioned scored within 4 days of arrival



The brand that pays.®



Materials and Methods

- Calves were harvested when visually determined to have 1 cm of back fat
- Only cattle with full, detailed carcass and performance information were included in the study
- Carcasses with trimable lung adhesions are noted



The brand that pays.®



Effect of Lung Adhesions on Feedlot Performance

Item	Lung Adhesion	
	No	Yes
Number of carcasses	44,856	1,895
Arrival wt., kg	292.4 ^a	288.7 ^b
Final adj. wt., kg	534.5 ^a	527.3 ^b
ADC, kg/d	1.45 ^a	1.37 ^b
Days on Feed	169 ^a	176 ^b
F:G, kg/kg	6.86	6.89

^{a,b}Means within a row with unlike superscripts differ (P<0.05)

The brand that pays.®



Effect of Lung Adhesions on Feedlot Profitability

Item	Lung Adhesion	
	No	Yes
Number of times treated	.23 ^a	.51 ^b
Individual treatment cost, \$/hd	5.29 ^a	12.23 ^b
Cost of Gain, \$/kg	1.39 ^a	1.48 ^b
Profit, USD/hd	45.27 ^a	1.65 ^b

^{a,b}Means within a row with unlike superscripts differ (P<0.05)

The brand that pays.®



Effect of Lung Adhesion on Carcass Traits

Item	Lung Adhesion	
	No	Yes
HCW, kg	329.4 ^a	319.5 ^b
Dressing percent	61.52 ^a	60.59 ^b
REA, sq. cm.	79.94 ^a	78.52 ^b
Rib fat, cm	1.13 ^a	1.08 ^b
Calculated YG	2.84 ^a	2.77 ^b
Marbling score ¹	426.6 ^a	410.0 ^b
%CAB [®]	18.12 ^a	12.46 ^b

^{a,b}Means within a row with unlike superscripts differ (P<0.05)

¹Marbling score; 400 = Small[®]

The brand that pays.®



Conclusions

- Calves with lung adhesions had:
 - Higher health treatment costs
 - Poorer feedlot performance
 - Lighter hot carcass weights
 - Lowered carcass merit
 - Less profit
 - than calves that did not have lung adhesions



The Winter of 2009-10

- Five major storms since December 8 resulting in record number of days with snow cover
- Most of us will remember the wind
- Since mid January we have seen a 3 to 4 fold increase in the percent of carcasses with lung adhesions, which coincides with the Christmas blizzard

