

Haskell County Animal Hospital

Animal Health Update

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Effects of Feedlot Disease on Economics, Production and Carcass Value

Economic Impact of Respiratory Disease

- Texas Ranch to Rail Report
Medical cost of sick calves ---- \$20.76-\$37.90 (1992-2000)
- Calves marketed early (railed)
Loss between \$240-\$307
- ADG Difference between healthy and sick calves
.31-.50 lb/day

ADG Studies

#1) 28 day study		
Healthy calves		2.75 lbs. ADG
1 treatment		2.62 lbs. ADG
2+ treatments		1.54 lbs. ADG
#2) 42 day study		
Healthy calves		2.32 lbs. ADG
1 treatment		2.17 lbs. ADG
2+ treatments		1.83 lbs. ADG
#3) 90 day study		
Cattle with 1 treatment		-.39 lbs. ADG
Cattle with 2+ treatments		-.73 lbs. ADG
#4) 150 day study		
Cattle with 1 treatment		-.09 lbs. ADG
Cattle with 2+ treatments		-.73 lbs. ADG

Although differences in ADG persisted until close-out, the change decreases as DOF increase.

Texas Ranch to Rail Report

Calves never treated gained as much as .56 lbs. per day more than those that had been sick.

Lung Lesion Studies

Nebraska Study (Birth to Slaughter)

Calves with lung lesions at slaughter gained .17 lbs. per day less in the 273 day feeding period.

-78% of calves that had been treated had lung lesions at slaughter, while 68% of untreated calves had lesions.

-Their conclusion – we are unable to effectively recognize sickness in the feedyard.

-My conclusion – sub-clinical illness plays a bigger role than we once thought.

Bryant Study

Lung lesions at slaughter decreased ADG .057-.65 lbs. per day.

OSU Study (150 day feeding period)

Steers without lung lesions	3.48 lbs. ADG
Steers with “inactive” lesions	3.15 lbs. ADG
Steers with active lesions	2.57 lbs. ADG

Of steers never diagnosed as sick, 37% had lung lesions.

Of steers diagnosed with BRD, only 48% had lung lesions.

These studies partially explain the improvement in performance following metaphylactic (mass) treatment.

Total Costs of BRD During the Feeding Period

Texas A&M

-Healthy steers returned from \$49.55 to \$123.86 per head more than sick steers.

-Based on arrival weights, sick steers were worth \$8.65-\$20.34 per hundredweight less than the healthy steers.

OSU

-Estimates \$20-\$35 per head loss in sick calves

Relationship of Clinical BRD, Lung Lesions and Carcass Grade

Texas Ranch to Rail Study

<u>Year</u>	<u>Percent Choice</u>	
	<u>Sick</u>	<u>Healthy</u>
92-93	28	40
93-94	19	36
94-95	33	39
95-96	32	38
96-97	26	40
97-98	23	42
98-99	24	41
99-00	37	54

OSU Trial

428 lb. Heifers backgrounded for 42 days prior to feedlot entry.

At slaughter

Healthy calves	66% Choice
1 treatment	59% Choice
2+ treatments	41% Choice

Other interesting facts

A study completed in 1995 showed that calves with inadequate passive transfer of maternal antibodies are at 3 times greater risk of BRD than calves that received adequate passive transfer. This may imply that during years of drought conditions, these calves will be at higher risk of BRD when they enter the feedyard due to poor cow nutrition.

Bulls

Male calves arriving at the feedyard as bulls experience higher BRD rates, lower ADG and poorer feed efficiency than comparable quality steers. It is estimated that a 550 lb. bull is worth \$5.73 to \$6.69 per hundredweight less than a steer. This is not due to the stress of the surgery alone, but rather it is partially a reflection of the overall poorer management on the farm of origin. The longer you delay castration the greater the decrease in % choice grade.

Economics behind pregnant heifers

1) No treatment

\$24.34	Loss/head – all cattle
\$147.49	Loss/head – pregnant cattle

2) Examine and Abort

\$10.22	Loss/head – all cattle
\$61.92	Loss/head – pregnant cattle

Assuming a 16.5% preg. rate, \$84 purchase price and \$78 finish price.

Pregnant heifers gain 12.6% less and feed conversion is 13.3% greater.

Parasites

Studies show strategic de-worming of pasture cattle (wormed on day 0, 28 and 56 on pasture) with Safeguard and again on arrival at the feedyard will increase % choice by 11%.

There is a .50/cwt reduction in breakeven price in cattle wormed at arrival. Even if strategically de-wormed on pasture.

Vaccine Choice

Pull rates at feedyard when using these vaccines at the ranch.

MLV – 12%
Killed – 36%