

GrowSafe Beef™ GB-2007-001

1 Beta Test Results

From April to October 2005 we installed two pens of GrowSafe Beef™ equipment in a commercial feedyard in Picture Butte, Alberta. Our objectives were to demonstrate that the technology was feedyard robust and reliable, and would not negatively impact animal performance or behavior.

1-1 Beta Test Relevant Statistics

Performance:

Mixed breed heifers: (968 lbs, n = 418)

Diet: Barley/barley silage

DOF: 120 days

Final BW: 1345 lbs

ADG: 3.13 lbs/d

Results: Similar to other cattle on feed

Watering Behavior:

Average # of visits: 4.39 visits/d

Average time spent at water trough: 700 seconds/d (11.6 min.)

Results: Similar to published results (3.4-7.8 times/d (Gonyou and Stricklin, 1984) 6 times/d (Buhman et al., 2000)

Accuracy:

Chute weight taken 62 DOF

Compared chute full body weight to GrowSafe Beef™ measurement:

⇒ Was highly correlated (r=0.97)

⇒ Similar variation as consecutive 2 day chute weights (variation < 9kg.)

Results: Accuracy equal to chute weighing

During the beta test we demonstrated that GrowSafe Beef™ was an accurate method of measuring animal body weight, and the system did not affect drinking behavior or performance.

Profit Improvement Potential:

Further we demonstrated that significant profit improvement in this typical pen of animals would have been made if animals were fed to an optimum market end-point.

We determined that if animals had been harvested optimally, a \$66 per head profit improvement would have been made. When compared to the historical average profit over time of \$10 per head, the impact of this technology would be significant.

2 GrowSafe Beef™ Pilots

We have now installed GrowSafe Beef™ technology in 1 Canadian and 4 US feedyards. In one of these feedyards we have also installed a GrowSafe feed intake and behavior monitoring system to monitor individual animal intake of up to 300 animals. By mid 2007 we will have captured unique performance information on up to 4,000 animals.

The primary objective during our pilots is to demonstrate the value of GrowSafe Beef™ to the commercial feedlot, and further we will be demonstrating and investigating:

- ⇒ Value of optimal marketing
- ⇒ Impact on carcass characteristics
- ⇒ Early sickness and carcass outcome models

2-1 Early Results

The first cattle monitored through the GrowSafe Beef™ pilot have now been marketed. We predicted individual animal cost of gain, and additionally measured individual animal intake using GrowSafe feed intake monitoring systems. Individual cost of gain was determined and optimal market loads calculated.

The feedyard projected out date using their typical marketing method was 3 loads to ship on February 6th, and 3.5 loads to ship on February 20th. Based on a proprietary model that determined when the cost of individual gain exceeded the value of individual gain GrowSafe proposed alternative load marketing dates of December 11, 18, 29, January 8, February 19, and March 3 (1.5 loads). When the traditional marketing method was calculated to return a base of \$0, the GrowSafe profit improvement was determined to be \$76 per individual animal.

Marketing Method	Pen	Animal
Traditional	\$0	\$0
GrowSafe Cost of Gain > Value of Gain	\$20,010	\$76

On visual assessment of the first loads marketed the feedyard expressed concern that cattle were not market ready. Given this reservation, feedyard management was pleased when cattle graded 49% AAA, 50% AA, 1% A; with 70% yield grade 1, 24% Yield grade 2, 3% Yield grade 3 and 3% B4. This was considered a good carcass outcome for predominately heifer and unspecified origin sale barn cattle. One light discount was taken. This animal had been identified before shipment as a poor performing animal losing weight rather than gaining. No overweight or other discounts were applied.

For further information about these pilot results and or GrowSafe Technology please contact Dr. Bill Kolath at 403-912-1879 x 227, bill.kolath@growsafe.com or Alison Sunstrum at 403-912-1879 x 224, als@growsafe.com.