2009-2012 Beef Industry – Research Indicators

BCRC

The Beef Cattle Research Council (BCRC) was established in 1997 to administer the research funding allocated by the National Check-Off. The BCRC is committed to funding leading edge research to position the Canadian beef cattle industry as a global leader in beef quality, animal health, food safety and environmental stewardship.

Why Research is Important

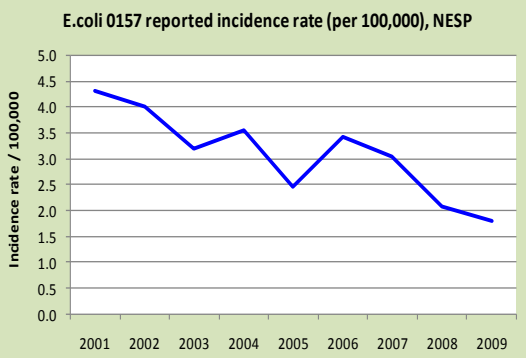
- Research and innovation are key to driving competitiveness and increased consumer demand on a global scale.
- New or better ways of producing cattle and beef can improve producers' bottom lines.
- As input costs increase, the ability of Canada's beef industry to compete internationally becomes increasingly important.
- Long-term sustainability of the industry is contingent upon the health of all sectors along the supply chain and ensuring the majority of cattle are processed in Canada.
- Research projects work to answer the questions and develop the technologies necessary to continually find better and more efficient methods of producing high quality beef and beef cattle.
- Future growth in productivity will be largely determined by today's investment in research and development.
- Research can also contribute to industry competitiveness and sustainability through improved consumer confidence and science-based regulation.

The goals of BCRC-funded research are to:

- Improve consumer demand for Canadian beef (through improved beef quality and food safety), and
- Improve production efficiencies (through improved forage and grassland productivity, feed efficiency, and animal health and welfare).

The Research Indicators presented here provide an overall trend of the contribution that research has made to Canada's beef industry over the years.

FOOD SAFETY



Detection levels for *E.coli* 0157:H7 have improved significantly over the last 20 years from 10-100 CFU/g in the early 1990s to 1 CFU/25g or 0.04 CFU/g.

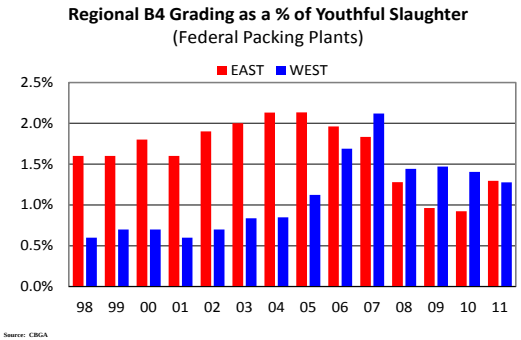
Sensitivity has also increased with current tests available being 100% sensitive (i.e. are detecting *E.coli* 0157:H7 and not another pathogen).

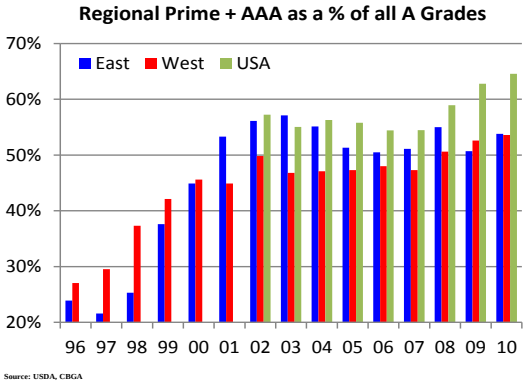
Time taken used to be 24-48 hours but newer assays are around 9-24 hours. This time difference has implications for test and hold being more likely to avoid a recall.

2011– Key Trends

1. Agriculture must double food production by 2050 using fewer natural resources.
2. Production advances are lagging the demand for food.
3. Research will be key to providing the breakthroughs necessary to provide the food needed in years to come.
4. Consumer perceptions around food safety and beef quality continue to be influenced by media.

BEEF QUALITY





Improvements in Beef Quality:

- AAA grading increased from 45% in 2000 to 54% in 2011 but is still below USDA Choice + Prime grading which was at 65% in 2011.
- The value of the increased AAA production has been limited by the declining spread between AAA and AA cutout values.
- B4 grading increased from 0.9% in 2000 to 1.3% in 2011.

Reducing B4 incidence to 2000 levels would save the industry an estimated $1.9 million.

Beef Cattle Research Council
310, 6715 – 8th St NE Calgary AB T2E 7H7
PH: 403-275-8558
www.beefresearch.ca

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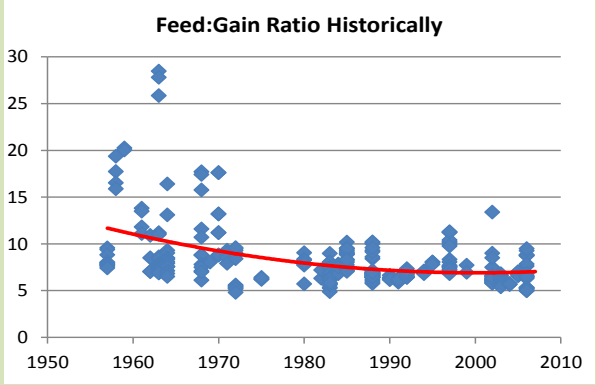
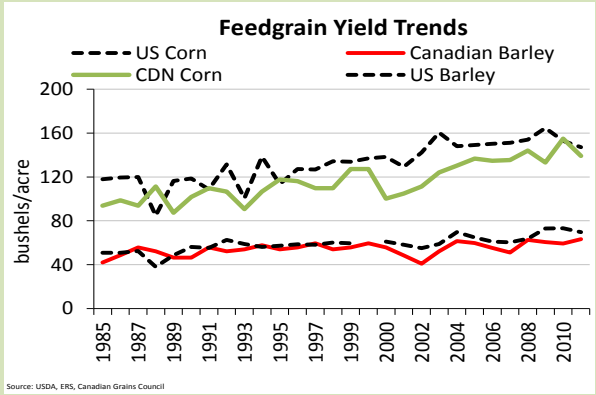
FEED & FEED EFFICIENCY

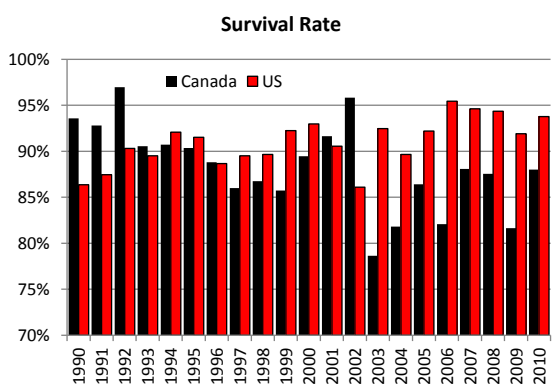


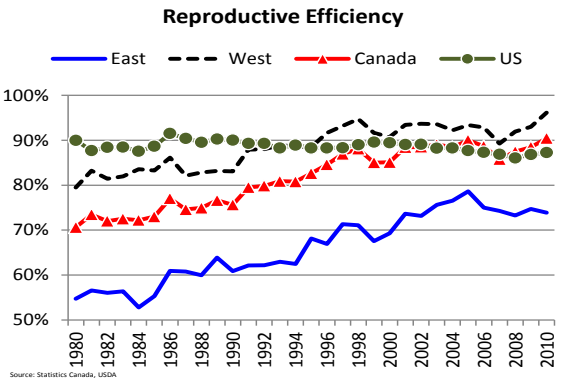


Improvements in Feed & Feed Efficiency:

- Feed:Gain has become more consistent over time, with gains in ADG, feedlot management and genetics. F:G currently ranges between 5.8 and 8.5.
- ADG has improved over the last 50 years from 1.75 lbs to 3.2 lbs on average in finishing feedlots.
- Corn yields increased 15% in the 1990's and 13% in the 2000's.
- Barley yields increased 12% in the 1990s but were steady over the last 10 years, and currently average around 60 bu/acre.

ANIMAL HEALTH

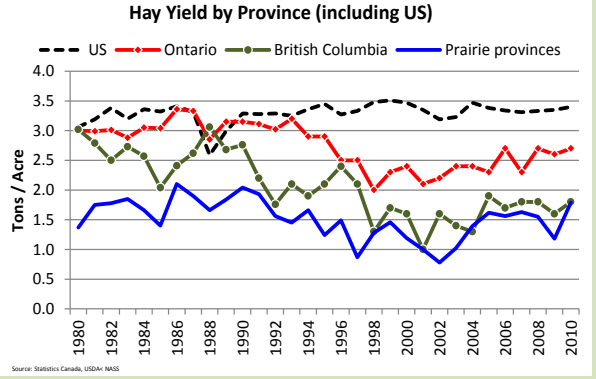


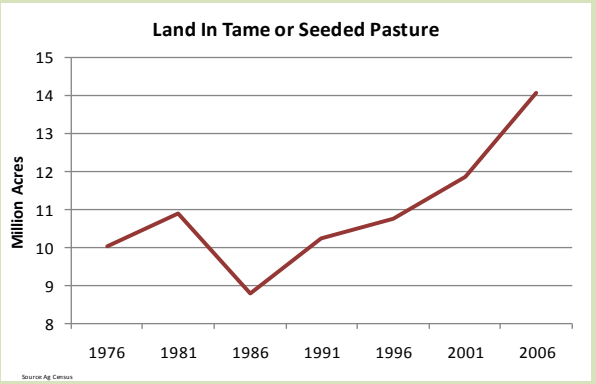


Improvements in Animal Health:

- Survival rates from weaning to slaughter have declined to 86% in the 2000's from 90% in the 1990's. While Canadian survival rates were higher than the US in the 80's and similar in the 90's, they have been lower in the last decade.
- A 4% increase in survival rates would represent at least $160 million to the beef industry.
- Reproductive efficiency (RE) = calves born as % of cow herd. RE has improved in both Eastern and Western Canada since 1980. RE in western Canada is now higher than in the US. Work is underway on Trich and Vibrio.

FORAGE & GRASSLAND PRODUCTIVITY





Improvements in Forage & Grassland Productivity:

- Hay yields in western Canada have declined by 13% in the 1990's and 14% in the 2000's.
- If hay yields increased by 33% (back to the 1.73 tons/acre averaged in the 80's), 6.67 million additional tons would be produced valued at $453 million.
- Moving from traditional winter feeding to swath grazing would save the cow/calf industry $4 million per day.
- Extending grazing one more day per year would save the cow/calf industry $3.6 million annually.
- BCRC is working to improve the research capacity in the forage breeding sector.

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