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# Challenges at the Bottom of the Cattle Cycle

## AT THE BOTTOM OF THE CATTLE CYCLE

It has frequently been discussed that the national beef cow herd is stabilizing and is currently at the bottom of the cattle cycle. On January 1, 2012 beef cow inventories were down only 1% at 4.2 million head. Beef replacement heifer numbers were up 4.3% at 554,300 head.

Cow marketings in 2012 are expected to be steady with 2011. Consequently heifer retention will have to increase further in order to increase the breeding herd. The heifer slaughter ratio in 2011 was 67%, right at the long term average indicating how cautious cow/calf producers are about any real expansion in the current market climate. Any further increase in heifer retention required for expansion will remove these animals from fed beef production, reducing supplies even more over the short term before a larger calf crop becomes available for slaughter.

Based upon expectations of steady cow numbers in 2012 and a consolidation phase that could last 2-3 years before expansion takes place smaller feeder numbers are here to stay at least for a while. *So what does this mean for the feedlots and packers buying those animals?*

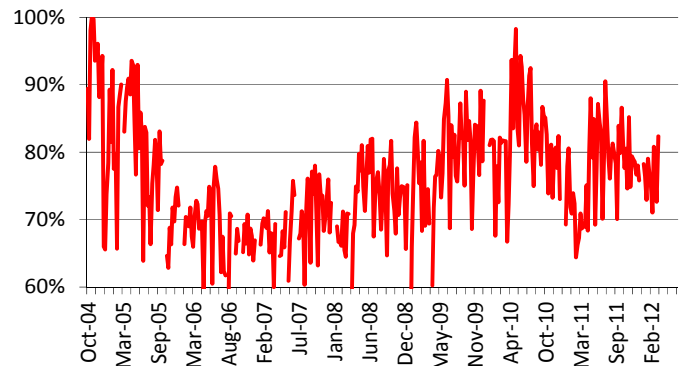
## PACKER STRATEGIES AT THE BOTTOM

Packers are pressured by tight fed cattle supplies in the bottom of the cattle cycle, as utilization rates decline and the fixed costs per animal increase.

## UTILIZATION RATES

Since 2005 when the border opened to the US for live cattle (UTM) and liquidation started in earnest Canadian packing plants have been closing their doors as excess capacity in the industry became painfully evident. Plant closures resulted in utilization rates increasing from the lows seen in 2006. Then shrinking cow marketings and a smaller calf crop saw utilization rates plummet in the second half of 2010 and into 2011 resulting in further closures. At this point there are only a limited number of plants left and utilization rates continue to struggle. Packer utilization rates in Canada were 76% in the first quarter of 2012, compared to 71% in Q1 2011 and 79% in Q1 2010. Utilization for 2011 overall at 77% was down from the high of 82% in 2010.

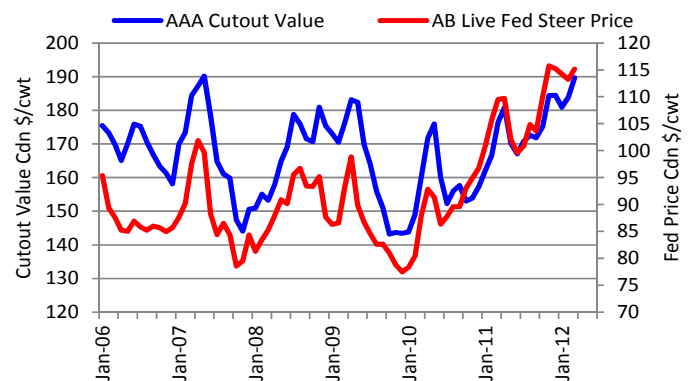
Canadian FI Slaughter Est Utilization Rate



Source: Canfax Research, CBGA

YTD cattle slaughter is down 2% from 2011 but beef production is up 1%. Current estimates are that 2012 beef production will be 2-3% lower than 2011. Leaving utilization rates similar to those seen in 2011.

Alberta Fed Steer Price vs. AAA Cutout Value



Source: Statistics Canada, CMC, Canfax

Higher operating as well as procurement costs have not been offset by higher beef prices. While fed cattle prices have increased by 31% over the last two years, boxed beef prices are only up 18%. Fed cattle prices are posting record highs averaging \$1 higher in Q1 2012 than 2001 (the last record high) but the AAA cutout was 11% lower than 2001. This difference in input and output prices, in addition to the challenging utilization rates, has squeezed packer margins both north and south of the border.

## US PACKER INTEREST

Fed cattle exports have been lukewarm in first quarter 2012 at 96,500 head down 16%. Weekly volumes were below 2011

levels until the last month when they increased to be above 11,000 head. Lackluster export volumes were surprising given the wide basis this spring. The cash to futures basis was -\$11/cwt in Q1 compared to -\$4.50/cwt last year, but is following the five year average of -\$11.75/cwt. US packers have also been struggling with negative margins and bringing more cattle in from Canada would have only exacerbated the losses.

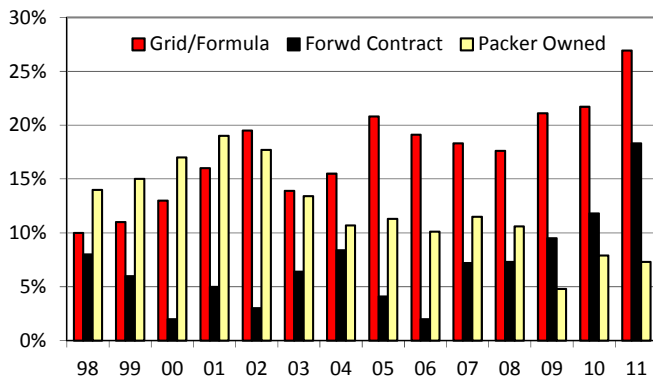
In the US with fewer cattle expected in the second half of 2012 packer utilization levels are expected to be pressured further. Don Jackson, chief executive of JBS USA, stated in March that while no JBS plant will close the company's beef plants have been operating as less than 40 hours a week since October. Further pressured from decreased demand for Lean Fine Textured Beef (LFTB) has resulted in AFA Foods seeking bankruptcy court protection and Beef Products Inc. has temporarily suspended production at three plants in Kansas, Iowa and Texas the last week of March. YTD cattle slaughter is down 5% from 2011 and beef production is down 3.4%. USDA is currently estimating that 2012 beef production will be 4.5% lower than 2011.

Smaller fed cattle supplies in North America have meant that packers are taking pro-active steps to ensure supplies for their plants.

**FED CATTLE PROCUREMENT**

Each year Canfax surveys the largest packers in Alberta to determine their fed cattle procurement patterns. Cattle procurement trends are anchored in existing marketing techniques with influence from prevailing economic conditions and packer incentives each year. In 2011 packer procurement was influenced by smaller fed cattle supplies and the desire to lock in supplies early. This strategy worked for them with domestic slaughter down only 10% while total marketings were down 14%.

**Alberta Fed Cattle Procurement Practices**



Source: Canfax

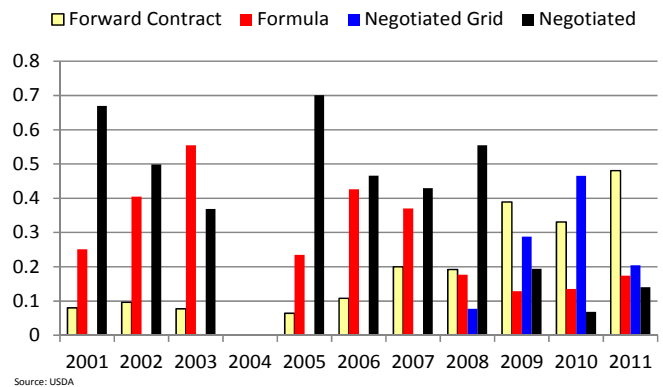
Some significant trends have jumped to the foreground in the latest survey. In 2010 cash cattle were at a low of 58.7%. In 2011 cash cattle purchases decreased further with only 47.4% of fed cattle were purchased on the cash market – the lowest percentage since this series started in 1998. This is down from 64.6% in 2009 and down significantly from the high of 68.8% set in 2006. Since 2006 the trend towards less cash cattle has occurred as market volatility increased and feedlots as well as packers were more reluctant to not have a price locked in, in advance.

**INCREASED USE OF AMAS**

The use of alternative marketing arrangements (AMAs) in Canada has jumped to 52.5%; well above the previous high of 41.4%. Forward contracted cattle represented 18.3% of fed cattle traded in 2011, up from 11.8% in 2010. Contracts have been steadily increasing since a low of 2% in 2006. Grid and formula cattle, at 26.9%, are up from 21.7% a year ago and have been moving higher since 2008 when 17.6% were grid. Grid cattle have represented over 15% of trade since 2004. Packer owned cattle were down slightly from 2010 at 7.3%.

It is interesting to see the difference in how fed cattle are procured by domestic packers compared to US packers. The USDA reports procurement method on imported Canadian cattle. The report is not directly comparable to the Canadian data due to differing categories and the fact that negotiated cattle were not reported until 2008 (historical data is estimated based on fed cattle slaughter). US packers have also been increasing the number of Canadian cattle procured by contract from 6% in 2006 to 48% in 2011. Formula cattle have declined from 23% in 2006 to 17% in 2011. Negotiated (cash) cattle have declined from 70% in 2006 to 14% in 2011, but this is up from 7% in 2010. The similarities to Canadian procurement are unsurprising as US packers have faced many of the same market factors as those in Canada.

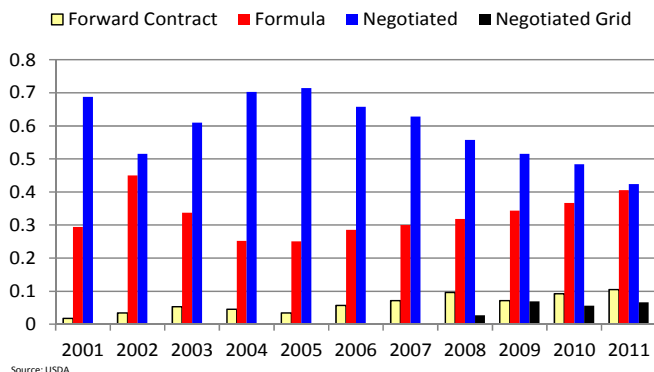
**US Packer Procurement of Canadian Cattle**



Source: USDA

The most current information from USDA on domestic fed cattle procurement shows negotiated (cash) cattle sold as being 42% of the total, down from the five year average of 52%. Negotiated sales have been steadily declining since 2005 when they represented 71% of the total. Negotiated grid cattle were 7% in 2011, up from the five year average of 4%. Forward contracts have been relatively steady over the last five years around 9% and came in at 10% in 2011. Formula sales have been increasing and were 41% in 2011, up from the five year average of 35%.

US Packer Procurement of Fed Cattle



**FEEDLOT CHALLENGES AT THE BOTTOM**

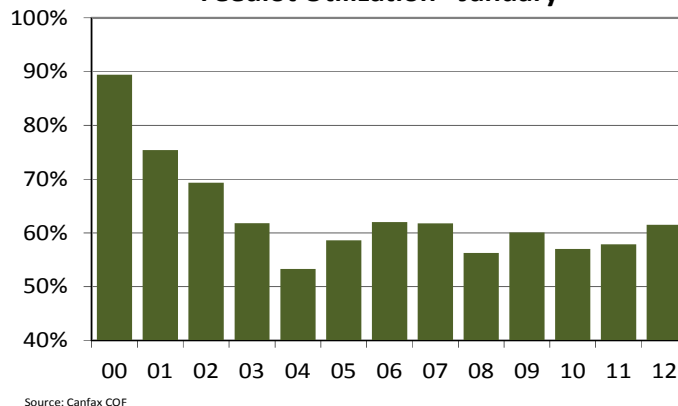
Fewer beef cows and a smaller calf crop have set up smaller fed marketings for the next two years (barring significant feeder imports from the US). This makes for a competitive market for feeders by feedlots. Fewer cattle to go around create challenges for finishing feedlot utilization rates.

**UTILIZATION RATES**

Utilization rates are impacted by two things: fill rates and turn rate. The 2012 Canfax Demographics survey showed that of the feedlots reporting fill rates were up slightly at 77% compared to 75.5% last year. This was primarily due to a slightly higher January 1st on feed number (+2.2%). The reported turn rate at 1.8 turns per year was down slightly from 1.82 last year.



Alberta and Saskatchewan Cattle on Feed  
Feedlot Utilization - January



When looking at the entire industry utilization rates are much lower (around 60%); implying that a number of feedlots are sitting empty or require a higher percentage of backgrounded cattle to fill pens.

One time bunk capacity for finishing feedlots with >1,000 head in Alberta and Saskatchewan has declined from a high of 1.74 million head in 2008 to 1.6 million head in 2012. This represents a decline of only 4%, as compared to fed cattle marketings which have declined by 12% over the same time period. With the large drop in fed marketings in 2011 and expectation of lower fed numbers in 2012 more feedlots are expected to close. The first course of action for many operations is to consider the options of switching between finishing and backgrounding. However, with the 20% decline in the cow herd there is over-capacity in the backgrounding sector as well. Once closed the longer these facilities sit empty the less likely they are to reopen when cattle supplies increase; resulting in further losses to industry infrastructure.

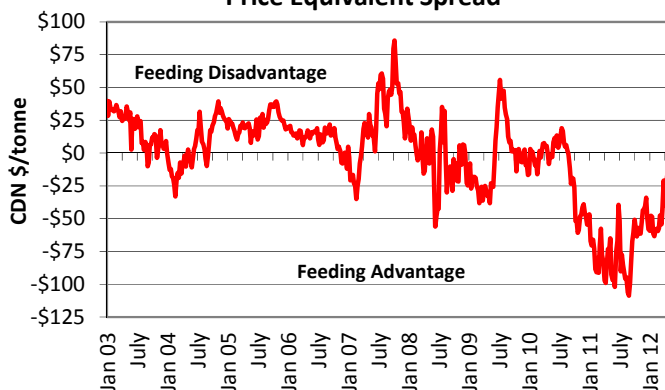
For feedlots that are operating at capacity, smaller numbers mean turn rates are lower than desired; increasing the fixed costs applied to each animal going through the feedlot. In theory this should decrease what feedlots are willing to pay for feeder cattle. However, at the bottom of the cattle cycle, the demand for feeders to fill feedlots may actually offset this decrease in willingness of pay from higher fixed costs.

**HIGH BREAKEVENS**

Competition for feeder cattle has resulted in prices moving higher over the last year and pushed fed cattle breakevens into record high territory. Consequently, feedlots have been increasingly focused on risk management options in order to manage margins; in some cases even before feeder cattle are bought.

As a margin operator, profitability in the cattle feeding sector depends on the feeder's ability to manage input and output risk. On the input side the largest cost is the cost of feeder animals, which represents over 70% of the total cost. During 2011 Alberta yearling prices (850 lb steer) increased nearly 20% from the previous year and at times traded contra-seasonal to the trend one would expect. In addition 850 steer prices fluctuated on average more than \$2/cwt (\$17/hd) in either direction 33% of the time during the year compared to 23% of the time during 2008-2010. A \$2/cwt move on the purchase price equates to nearly \$1.30/cwt move on a finished steer marketed at 1325 pounds.

**Alberta Barley/Omaha Corn Price Equivalent Spread**



Source: Cattle-Fax, Alberta Ag

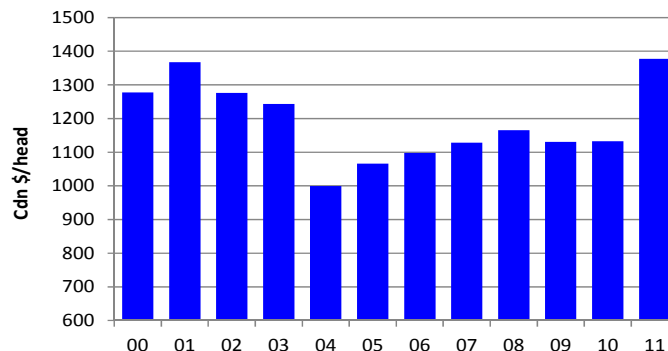
Cost of gain also increased during 2011, up 20% from the previous year, with barley prices (+26%) contributing to nearly 70% of the feeding cost. Following the trend started during the fall of 2010, Alberta continued to enjoy a cost of gain feeding advantage over the US throughout 2011. Averaging just over \$73/tonne for the year, there were times when the cost of gain advantage widened to over \$100/tonne (in barley equivalents). On a yearling steer converting at 6.5 (lbs of feed to 1 lb gain) this equates to \$24-34/cwt COG or \$114-162/head. The cost of gain advantage narrowed after August as barley prices increased and corn decreased. By the end of 2011 the barley corn spread was only \$34/tonne. From the standpoint of managing risk, it is important to understand both the risk of a move in grain prices (increase in barley = increase COG), but also how that relates to the competitiveness of corn and the COG in the US as this can be a contributing factor to demand for feeder cattle. In 2011 the 20% increase in yearling COG equated to nearly \$64/head. In addition, the narrowing of the spread increased US interest in Canadian feeders during the fall run, pushing feeder prices higher.

Adding the cost of the feeder animal with the cost of gain and it is no surprise that yearling steer breakevens during 2011 were the highest seen since 2002 and were over 20% higher than

2010 for half of the year. Yearling breakevens also increased nearly 14% from January to December.

**Credit Needs Skyrocket**

Based on a 550 lb steer and average COG (\$/head)



**OUTPUT RISK**

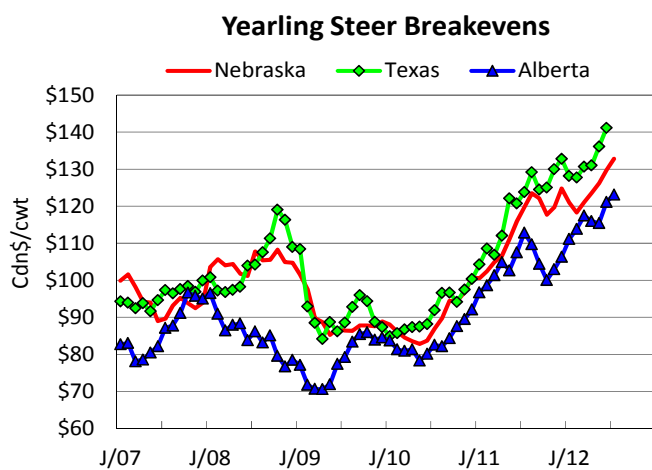
In regards to output risk, Canadian cattle feeders have three spokes of the wheel to manage, as opposed to a US cattle feeder, with currency risk being added to live cattle and basis risk. Although Alberta fed steer prices increased 19% during 2011, helping to offset the increase in breakevens, Alberta fed prices also saw increased volatility. Weekly prices fluctuated over \$3/cwt in either direction 18% of the time compared to 6-8% during 2009/2010. A \$3/cwt move equates to \$40/head, which if not managed can quickly move a position from profit to loss.

With limited options available to a cattle feeder, basis can be difficult to manage. During 2011 the Alberta cash to futures basis was narrower than 2010 and the 98-02 average for the first eight months of the year. Cash to futures basis levels started 2011 at nearly \$7/cwt under then narrowed to \$1.80 under in May before widening out \$7.25 under in August. For the first eight months, cash to futures basis averaged \$4.70/cwt narrower than 2010 or \$62/head. However, basis widened significantly through September and October as carcass weights grew and the industry became less current. At the widest point, the cash to futures basis was -\$18.75/cwt before narrowing to -\$8.33/cwt average in December. The 2011 annual basis at -\$8.95 resulted in the basis narrowing \$0.85/cwt or \$11/head compared to 2010.

The last factor in output risk for a Canadian cattle feeder is the currency exchange. During 2011 the Canadian dollar increased 4% to average US \$1.011. For the first nine months the Canadian dollar traded solidly above par and as high as US\$1.06 before settling between US\$0.9550-0.9925 for the remainder of the year. Similarly to the cattle and grains market, the Canadian dollar also fluctuated with the average weekly move at US\$0.01.

## FEEDLOT PROFITABILITY

Where does this leave Alberta cattle feeders from a profit and loss standpoint? The Canfax TRENDS report, based on cash trade, showed Alberta cattle feeders were profitable eight out of the twelve months of 2011. However it should be noted this model does not take into account times when feedlots are not current (September 2011) resulting from extended marketing dates or times when weather influences cattle performance such as the winter of 2011/2012. It also does not take into account risk management strategies and depending on how a cattle feeder managed the risk factors mentioned above, there could be a wide range of between profits and losses.



South of the border, Nebraska cattle feeders saw breakevens during 2011 increase 27%, while in Texas breakevens were over 30% higher. In both locations, as with Alberta, the highest breakevens were seen at the end of 2011 and have extended into 2012. From a P/L standpoint, the 20% increase in US fed steer prices helped offset the higher Nebraska breakevens and resulted in cattle feeders being slightly profitable for the year. However in Texas the 30% increase in breakevens was not fully offset by the increase in the fed market. Consequently the Texas cattle feeder lost money eight out of the twelve months and erased any profit enjoyed through the first four months.

## RISK & VOLATILITY

As feedlots look to lock in a contract to cover higher breakeven costs, packers are looking to secure more forward contracts due to supply risks and the need to secure cattle. So what are the implications of such a strategy? Are fed prices more or less volatile?

With higher prices and a thinner cash market one might expect more volatility as packers enter and exit the cash market as needed and are not consistently bidding on cattle. At the same time the first quarter of 2012 has been one of the most stable in

history for the Alberta fed cattle market. From January to March, Alberta fed steer prices ranged between \$110.75-116.50/cwt, with weekly moves averaging around \$1/cwt. There was only one week through first quarter that the weekly price moved more than \$2/cwt.

Volatility in the market is a response to supply versus demand (perceived or actual). If a packer has increased total supply (contracts, grid, packer owned) versus the expected demand then they are able to better manage slaughter levels and therefore the cash market is likely to be less volatile even on thinner cash supplies. However if demand shifts from the expected, the fed market can become more volatile. This was evident during the first week in April, when the fed steer market dropped \$5/cwt (live weight) in response to a lower cutout, which had been impacted by the negative public response to Lean Fine Textured Beef (LFTB) in addition to other factors.

It is also important to remember demand from a packer is in terms of pounds not number of head. So although through first quarter fed slaughter has been down 1.5%, a 30 pound increase in steer carcass weights and a 41 pound increase in heifer carcass weights have resulted in domestic fed beef production actually being up 3%. The same has been true south of the border with US steer carcass weights up 15 pounds from a year ago, while fed slaughter has been down 6%. Early indications have also shown beef imports are up, while exports have been steady to soft.



## LOOKING FORWARD

So what's in store for feedlots moving through the remainder of 2012?

The April 1st Alberta and Saskatchewan Cattle on Feed report showed inventories down 3% from a year ago and 2.2% below the five year average. Seasonally supplies would be expected to increase from the spring into the summer, with carcass weights decreasing into June/July, even though starting from an

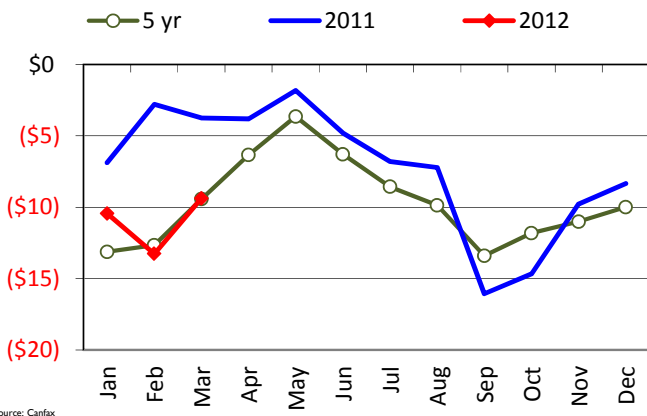
elevated carcass weight currently. US COF was up 2% on April 1st and 1.4% above the five year average. Expectations in the US are for fed cattle marketings to increase from spring into summer with year over year increases in the carcass weight, leaving net beef supplies elevated.

For calves placed against second quarter, risk management has been imperative. Steer calves (550 pounds) placed last fall were trading \$20-30/cwt higher than the fall of 2010, with COG expected to be up 7-9%. However since last fall Lethbridge barley prices have increased 15% during the feeding period. Therefore, if a cattle feeder took a cash position on barley, breakevens would be expected to be higher than the 16% increase projected over 2011 second quarter breakevens.

**BASIS**

In addition, the Alberta cash to futures basis level has traded \$3.50-11.00/cwt wider than first quarter 2011. So far during 2012, cash to futures basis levels have been tracking the closest with the five year average (07-11). Seasonally the basis narrows from the first quarter to -\$5/cwt in May, while last year the basis was extremely narrow in the first quarter and only narrowed \$1/cwt in the second quarter. Following the five year trend would suggest a second quarter basis level around -\$5.50/cwt, which is \$2 wider than 2011 when the second quarter basis averaged -\$3.50/cwt. Historically one would expect the basis to widen out moving into the third quarter averaging \$10.50 and then \$11.00/cwt in the fourth quarter.

**Alberta Fed Steer Basis  
Cash to Futures**



Source: Canfax

Cattle-Fax quotes a projected price break from spring highs to summer lows of 13%, putting this year's summer low around US\$113/cwt. Assuming a par dollar and a \$6.50-7.00/cwt basis projection, this would put Alberta fed steers at \$106.00-106.50/cwt. However, if the dollar was to trade at the low and high of its range so far this year, prices would equate \$104-108/cwt. Based on the Canfax TRENDS report this would put

calves at a breakeven to a slight loss on the cash market. A cash position on the grain side may have increased that loss. But this may have been offset by an increase in animal performance with the exceptional mild winter weather. South of the border, Nebraska cattle feeders are expected to hold onto profit until April, but losses are expected through second and into third quarter.

So although last fall the purchase of a calf was projected to be profitable, changes in the input and output risk has impacted the final scenario. As a result, in recent years risk management has been a hot topic and cattle feeders have been encouraged to become more comfortable with it since an increase in fed cattle prices does not always equate into a profitable position.

**CONCLUSION**

Larger inventories of steers and calves kept the supply of beef feeders and calves outside of feedlots on January 1st steady with year ago. This is good news for feedlots as they look for supplies moving into 2012. However, this advantage may already be gone with the April 1st cattle on feed number smaller than year ago. Smaller inventories have put pressure on the feedlot and packers, as utilization levels and turn rates fall and fixed costs are spread over fewer cattle. Lost infrastructure at the bottom of the cattle cycle is difficult to restore later on.

Despite a cost of gain advantage in Canada a wide basis and higher fed cattle prices in the US are moving feeders south. Feeder cattle exports are up 75% in the first quarter and are 4% higher than 2010 exports. Higher fed cattle prices in the US mean competition from US feedlots, which are facing the same tight supplies, is fierce.

