

## DAIRY BEEF PRODUCTION PAST, PRESENT & FUTURE

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With this impressive program and the cast of speakers it would be unnecessary and redundant for me to spend time on specific production phases. Rather, I would like to focus on the history, what makes the current programs popular and some thoughts on the future of dairy beef production.

In addition, I'll discuss some of the unique and unusual aspects of Holstein's beef production. It may surprise some that calf fed Holstein production is not new but actually began in the Mid 1960s. Early pioneers in the business were a Father & Son team from California. Their background was not in the cattle business, but in aviation. Dale Smith was an early barn storming pilot and his son, Dale Jr. was a test pilot for Howard Hughes. In the late 60s they built the first large slotted floor feedlot South of Los Angeles. Their source of calves was Southern California dairies and initially most of the calves cost \$5 to \$10/HD and you selected only the best. Calves were moved to the feedyard at approximately 200 lbs and sold at a finish weight of 900 to 1000 lbs. The Southern CA. packers discriminated against heavier carcasses. These light animals fed a high concentrate diet had great conversions. No attempt was made to obtain a higher grade than "good" as that was the Southern CA. market at that time. The industry developed in Southern CA., for several reasons. At that time Californians were the innovators in the commercial feedlot industry. There was an abundant supply of Holstein calves, a mild climate and demand for a light lean carcass and was also an abundant supply of by-products including beet pulp, citrus pulp, almond hulls, molasses, fat, etc.

The supply of by-products was key to development of the CA. feedlot industry. and if you study the history of the feedlot industry throughout the United States, you will note that the cattle usually follow the feed. For example, the feeding industry in the Northwest was based on an abundant supply of wheat and barley and potato waste. Initially, feedlot industry in the South Plains developed because of the introduction of hybrid grain sorghum. It is thought the first feedlots actually started in Central Texas and were built around the availability of cotton by-products. Of course we are all aware of the importance of corn and silage production in the development of the Midwest feeding industry.

As the calf fed Holsteins became more popular, the industry moved further east. The growth of the program was further fueled by the popularity of prepaid feed tax shelter investment programs. In 1984 many of these programs were disallowed, but during prior 15 year period, many commercial feedlots depended on "tax investors" for their feedlot numbers. The advantage of a calf-fed Holstein program was the low initial investment in a small animal and 1-2 tons of prepaid feed as an expense.

In the 1980s and 90s cattle feeding was on average a breakeven proposition (Table 1). This doesn't mean the market was consistent or predictable because during that period there were instances of large losses and occasional profits. But the average was about a breakeven with an abundant supply of feedlot cattle. As a result, Holstein programs became less popular because there was an ample supply of beef cattle to feed and process.

After 2000, the cattle market gradually improved and the big price breakout occurred in the fall of 2003 when fat cattle prices hit \$110 to \$120/cwt. There were a number of reasons for this including an improvement in demand and a continued reduction in cow numbers resulting in a short supply of feedlot replacements (Table 2). There were several reasons for the reduction in cow numbers, but most important, cow-calf operations had made very little money for several years. In addition, we began to see more pressure to move cattle off federal grazing lands and more demand from outside investors for ranch land. Many investors wanted the ranch land for uses other than cattle production including housing and industrial development, hunting, recreation, etc. The result has been a tremendous increase in land values making many ranchers financially independent and in some cases unsure if they want to continue raising cows. The reduction in cow numbers coincided with a large expansion in feedlot capacity in the late 1990s. It is currently estimated that we have approximately 20% excess feedlot capacity relative to replacement cattle availability. Feed costs have tended to decrease and the combination of cheaper feed and a shortage of replacements made calf fed Holstein programs popular again.

This will conclude the portion of the talk which we might refer to as a "trip down memory lane". Now let's talk about what makes Holsteins unique, some of their major advantages and what the future may hold.

## **HOW ARE HOLSTEINS DIFFERENT? – LET ME COUNT THE WAYS**

- 1) Playful and gentle temperament for steers, but unpredictable and dangerous if accidentally left as bulls.
- 2) Easily bored and therefore they "sort" their feed which can lead to metabolic problems.
- 3) More bloats and "metabolics"
- 4) More bullers
- 5) More running and playing which means more dust in the pens.
- 6) Feedlot cowboys may not like them because it's hard to chase an animal that insists on following you.
- 7) Heat tolerant, but cold intolerant
- 8) At risk for liver abscesses and acidosis, but seldom founder.
- 9) Holsteins drink more water than beef cattle so their pens may get muddier
- 10) Suicidal tendencies

## **WHY ARE HOLSTEINS POPULAR?**

- 1) Excellent and predictable gain and efficiency
- 2) Predictability is the result of the small gene pool. Some estimate that 2 bulls make up approximately 30% of the gene pool in US Holsteins and 1 bull has a 20% relationship to Canadian Holsteins
- 3) If fed and managed correctly they produce a high quality consistent carcass. While the quality grade and cutability can be excellent, they have a relatively small ribeye area or in today's politically correct world, they might be described as "ribeye challenged". Therefore, the use of a TBA combination implant and Optaflexx during the terminal phases of the feeding period, both of which increase ribeye area may be helpful.
- 4) Calves are bought light and sold heavy thus occupy feedlot space for an extended period of time. A calf purchased at 300 lbs and sold at 1300 lbs will stay in the feedlot approximately 1 year. This is a definite advantage when replacement numbers are short and prices high.
- 5) Health related problems are something of a mixed bag. They tend to have less respiratory trouble, but more metabolic deaths and also unexpected deaths that some characterize as suicides. Remember these animals will be fed one year and will be exposed to every feedlot problem that occurs

## **POTENTIAL ADVANTAGES FOR FUTURE**

- 1) They are easy to "age and source" verify and can be ready for market at 14 to 18 months of age. This could be a distinct advantage if the 20 month age limit rule becomes a reality for exports.
- 2) Increased energy and fuel prices mean increased transportation costs. The cost of transporting a 300 lb calf to the feedlot permanently is a definite advantage compared to some other feedlot programs. Table 3 illustrates the cost/cwt and per head of moving feedlot replacement cattle various distances. In this illustration, you can see that it cost only approximately 1/3 as much for a 300 lb Holstein calf compared to a conventional 800 lb steer. Furthermore, the 800 lb steer might have previously been moved at least once from a cow-calf to a yearling operation compounding transportation costs. If high fuel prices persist, the era of "putting wheels under your cattle" and moving them where ever the grass is greener will disappear.
- 3) If you are in the calf-fed Holstein business, you are really in the feed and grain business. Properly managing your feed buying is critical to the success of the operation. With the incredible ability of farmers to produce, one would anticipate that in the near term future we will continue to see relatively low feed costs. In addition to conventional grains this also includes by-products such as distiller's grains which can be utilized better by cattle than other species. Keep in mind that putting 1000 lbs on a Holstein calf requires approximately 3 tons of dry feed. A stable and relatively inexpensive source of feed is an asset to a Holstein calf program and the availability of feed by-products is an additional plus.

One word of caution, should feed prices escalate to new highs as they did in the mid 70s and mid 90s, “all bets are off”. It’s possible that the current “energy crunch” including increased fuel and fertilizer cost could curtail crop production. Future production may not be measured by bu/acre but by bu/BTU. Should this happen it could significantly reduce corn production, especially in irrigated areas. With high feed costs the Holstein calf becomes less attractive. Currently the cost of a 300 lb Holstein steer exceeds \$400. However, in the past we have seen occasions when a Holstein calf was worth less than nothing and even if given away there were few “takers”. In feed and cattle markets, there are few “sure things” and this risk should not be ignored.

## The Conclusion

- This has been a brief look at the past, present and possible future of the calf-fed Holstein program. Like the trail drives in the 1860 to 1890 era and the development of the feedlot industry in the 1950s, 60s and 70s, the development of the Holstein beef programs have been an exciting part of our cattle industry. However, during these good times, it is well to remember that excitement usually has both positive and negative aspects. In the cattle business, times of “adrenal rush highs” are sometimes followed by periods of “sheer terror”. In some ways, the old saying “the more things change, they more they stay the same” seems appropriate. However, the reality is that everything changes. The question is will change mean growth and maturity or decay and destruction. I’ll place my bets on the former.

**Table 1. Changes in Cattle and Cow Numbers**

<b>Year</b>	<b>All Cattle</b>	<b>Beef Cows</b>	<b>Dairy Cows</b>	<b>All Cows</b>
	<b>million head</b>	<b>-----X 1000's-----</b>		
<b>1950</b>	<b>78.0</b>	<b>16,743</b>	<b>23,853</b>	<b>40,597</b>
<b>1960</b>	<b>96.2</b>	<b>26,344</b>	<b>19,527</b>	<b>45,871</b>
<b>1970</b>	<b>112.4</b>	<b>36,689</b>	<b>12,091</b>	<b>48,780</b>
<b>1980</b>	<b>112.2</b>	<b>37,107</b>	<b>10,758</b>	<b>47,866</b>
<b>1999</b>	<b>98.5</b>	<b>33,472</b>	<b>9,143</b>	<b>42,615</b>
<b>2005</b>	<b>104.5</b>	<b>33,750</b>	<b>9,050</b>	<b>42,800</b>

**Table 2. Cattle Investor Feeder Return 1980 – 1998**

<b>Years</b>	<b>\$/cwt</b>	<b>\$/head</b>
<b>1980 – 1989</b>	<b>\$.21</b>	<b>\$2.52</b>
<b>1990 - 1998</b>	<b>\$-.51</b>	<b>\$-6.12</b>
<b>1980 - 1998</b>	<b>\$-.13</b>	<b>\$-1.56</b>

**Table 3. Fuel & Freight Cost Input**

<b>\$3.00/mile</b>	<b>400 miles</b>	<b>800 miles</b>	<b>1200 miles</b>
<b>cost/cwt</b>	<b>\$2.40</b>	<b>\$4.80</b>	<b>\$7.20</b>
<b>300 lb Calf</b>	<b>\$7.20</b>	<b>\$14.40</b>	<b>\$21.16</b>
<b>800 lb Yearling</b>	<b>\$19.20</b>	<b>\$38.40</b>	<b>\$57.60</b>