

## **DOMESTIC AND GLOBAL OPPORTUNITIES FOR BEEF PRODUCERS WHO RAISE HIGH-QUALITY CATTLE**

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### **Introduction**

Cattle and calf inventories have been on a general decline since the mid-1970s when inventories peaked at 132 million head. The cattle industry on average experienced growth prior to the 1970's peak. However, the decline in cattle inventories has resulted in 92.5 million head at the beginning of 2011. Many in the industry are worried about maintaining critical infrastructure if this downward trend is not reversed. It appears many producers will continue the current liquidation phase for at least the next two to three years.

It seems that the lack of profitability has been the major factor driving cattle inventories lower the past three decades. The question remains of how to return the industry to a more profitable time. That is certainly the case given record-high feed costs have added an additional dynamic to the picture.

Demand for beef has shown weakness over much of this same time frame. Increasing demand for beef should remain a top priority for the industry. There has been much research into the reasons demand for beef has weakened. One of the major factors contributing to reduced demand is that consumers prefer consistent higher-quality beef that is currently not being supplied by many U.S. cattle producers today.

Agricultural markets have experienced unprecedented price volatility in the last few years. Many factors have been responsible for the recent volatility including but not limited to a global economic downturn, high crude oil prices, market price speculation and new demands for agricultural products. It seems likely that many of these factors will remain in play and that volatility in agricultural markets will remain for the foreseeable future.

Those involved in the agricultural industry must therefore understand how to best position their particular sector to handle the volatility that lies ahead. This is an especially large issue for the U.S. cattle industry since there is a long time lag from when cow-calf producers make the decision to expand or contract their herds until the beef from those animals arrives to the final consumer.

If you participate in an industry that can change output plans in a matter of weeks, it is much easier to adapt to the increased volatility seen today in the marketplace. However, in the cattle industry it takes years for supply adjustments to make their way through the industry. The cattle industry exhibits one of the longest if not the longest production lags of all agricultural commodities. This, in turn, can create a whipsaw action in producer returns that frankly can become unbearable for cattle producers.

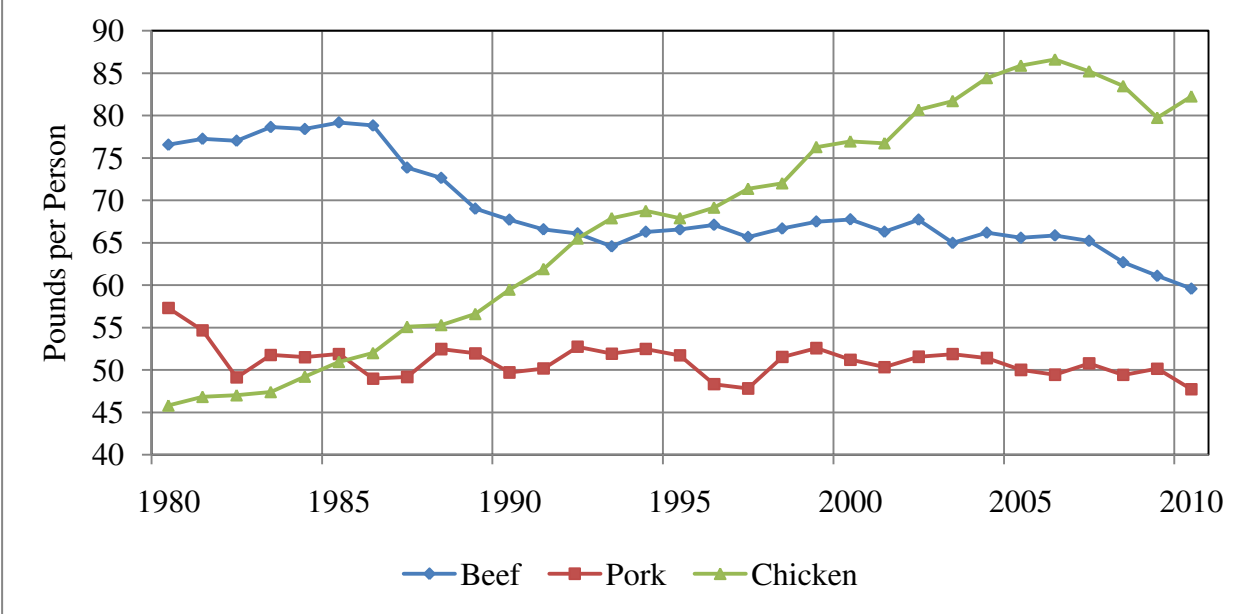
Despite the volatility and lack of profitability that the cattle industry faces today, there are some great opportunities available to the industry. The cattle industry has lagged the other meat sectors in terms of providing products that better meet the needs of today’s consumers. The result of this lag is that other meat sectors have expanded their share of the meat consumption bundle since they produce products of greater interest to today’s consumer. This is true in the U.S. and around the world.

The great news is that the tools needed to produce high-quality cattle and beef on a consistent basis are available today. The “*Missouri Recipe*” has been developed and is now a reliable framework to consistently produce high-quality cattle and beef. This can provide the much needed economic boost for cattle producers need to survive in today’s volatile marketplace.

**Domestic Beef Markets**

Before tackling the outlook for high-quality beef products, an overview of domestic meat markets is instructive. In looking back over the past three decades, after reaching a peak of 79 pounds in 1985, beef per capita consumption has been on a general decline (see figure one). The consensus opinion among economists was that demand for beef was weak over the period and the industry needed to provide consumers with beef products that better met their changing tastes and preferences.

**Figure 1.** U.S. per capita meat consumption.



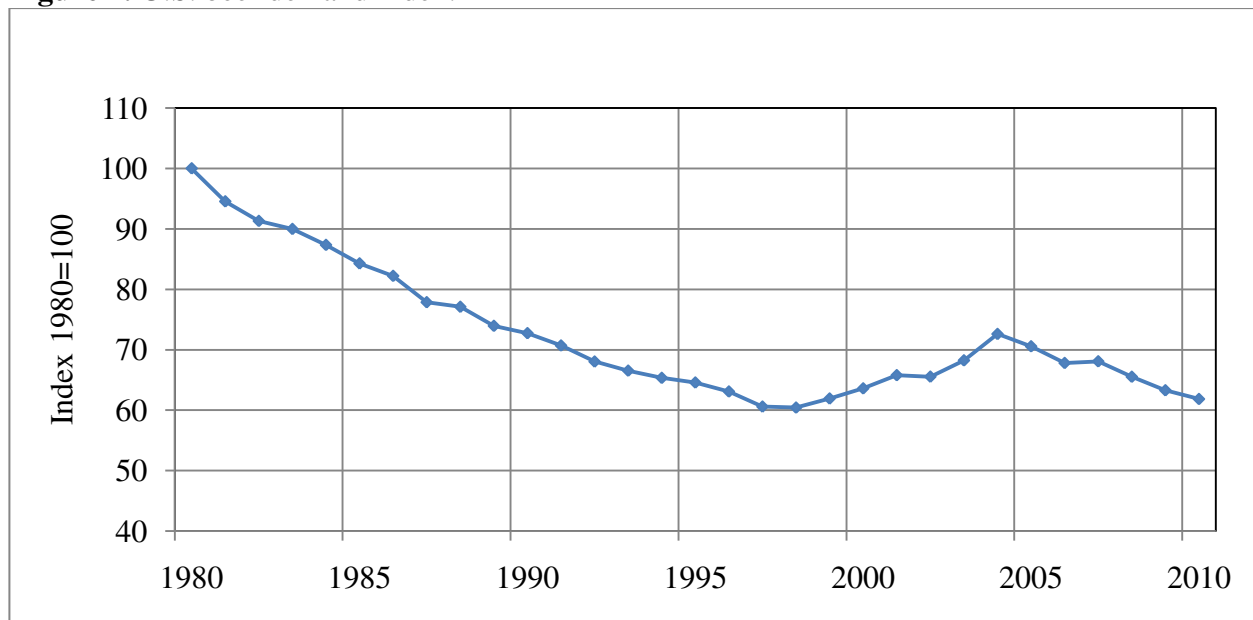
There was no clear reason found for the weakness in beef demand but many speculated that consumers were looking for healthy products at the meat case and beef found it difficult to compete relative to the chicken alternatives that existed. In the late 1990s and early 2000s beef demand showed signs of rebounding. The Atkins diet and strong mid-level restaurant growth seemed to be the general drivers of this demand recovery.

Figure 1 shows the large expansion in chicken per capita consumption that occurred over the same period. A 40 pound increase in per capita chicken consumption over the 1980 to 2007 period signified an industry on a steady growth trend. If the beef industry could experience even a small portion of the growth witnessed in the chicken industry over the 1980s and 1990s, the number of cattle in this country would expand significantly.

In recent years, there has been a reduction in meat consumption. The adjustments made by all meat sectors in response to high feed costs have led to the downturn in meat consumption. All animal sectors have cut supplies to raise output prices in an attempt to cover the higher feed costs that exist today.

There is certainly a difference between demand and the level of consumption of beef in any particular year. A reduction in per capita beef consumption does not necessarily translate into a weaker demand situation. Demand strength for beef depends on the levels of both consumption and price. The data shown in figure two provides an indication of beef demand strength over the last three decades. This data measures the demand strength or weakness by taking into account relative price effects on the meat consumption bundle.

**Figure 2.** U.S. beef demand index.



In the case of beef demand, the graph shows weakness from 1980 through 1998 with a decline of 40 percent over that period. A steady decline in beef demand was in part responsible for the reduction in U.S. cattle inventories that occurred over this period.

Although this historical examination can be instructive, the more important issue is where the cattle industry goes from this point forward and the role that high-quality beef can play in increasing overall demand for beef. The U.S. is coming out of the worst general economic downturn experienced in decades. This economic contraction caused consumers to behave differently when making food choices. The overall bundle of food consumption was reduced by the average consumer and they often substituted lower-priced food products for higher-priced

alternatives. There was certainly data that substantiated this effect in meat markets. Prices for chicken and ground beef products fell, but by a smaller percentage than steak prices. This effect may seem to contradict a strategy to increase high-quality beef production, but delving deeper into the data available shows that there are specific examples where demand deterioration for higher-priced products did not occur.

Based on data obtained from Certified Angus Beef<sup>®</sup> LLC (CAB<sup>®</sup>), total revenues for Choice beef increased 5.6% from 2005 to 2009, while CAB<sup>®</sup> licensees increased revenues 8.9% more by selling a premium brand (CAB<sup>®</sup>, 2010). Despite the economic downturn, CAB<sup>®</sup> products still experienced expansion. It is encouraging to find that despite the general trend of reduced consumption and buy-down of meat products by consumers, higher-quality CAB<sup>®</sup> products were expanding. This highlights the potential available when providing consumer products that better match tastes and preferences.

### **International Beef Markets**

The U.S. cattle industry has found that beef exports have been important to the overall demand for U.S. produced beef. Prior to the U.S. BSE discovery in December 2003, the U.S. had exported over 2.5 billion pounds of beef. Since the U.S. BSE outbreak, it has taken a period of time for some global customers to return to U.S. supplied beef as their concerns lingered about the safety of U.S. product. However, recovery continues to unfold and in 2010 U.S. beef exports surpassed 2 billion pounds for the first time since the U.S. BSE outbreak.

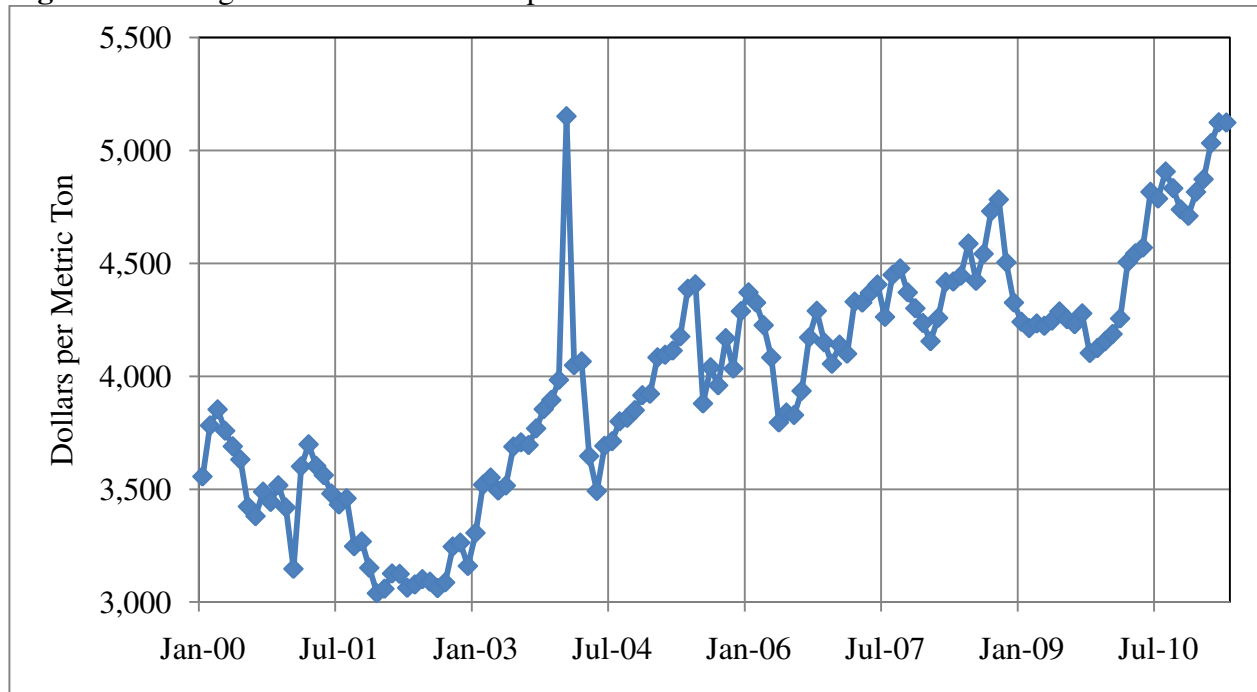
Two important countries to U.S. beef exports prior to the BSE outbreak were Japan and South Korea. These markets were closed for a period of time after the outbreak, but the U.S. has been able to send beef to both countries in recent years. However, after reaching over 80 million pounds a month prior to the BSE outbreak, the Japanese market has only yielded a monthly total of 40 million pounds once since the outbreak. U.S. beef exports to South Korea have also shown recovery from the BSE-restricted of a few years ago. Both of these markets tend to import higher-quality beef products. It appears that further recovery in U.S. beef exports to these markets is likely, especially if the current Korea-U.S. free trade agreement is ratified by both countries.

The possibilities for growth in U.S. beef exports go beyond these two important markets. With total U.S. beef exports nearing pre-BSE levels even with these two countries lagging highlights that many other markets for U.S. beef have been growing. In many cases these newer markets are also consuming higher-quality beef products. Figure 3 plots the average value of U.S. beef exports and the increasing trend in beef values is evident with current values exceeding \$5,000 per metric ton. It appears there are additional opportunities to move high-quality beef products in both U.S. and world markets.

Figure 3 highlights that just as the U.S. economic contraction reduced domestic beef demand, a similar event occurred in terms of the downturn in value of U.S. beef products in world markets in 2009. Continued economic recovery in world markets and a continued weak U.S. dollar should allow for further expansion in the value and volume of U.S. beef. A weak U.S. dollar has

been important to the growth in beef prices since other countries have seen effectively cheaper beef with the weakness in the U.S. dollar.

**Figure 3.** Average value of U.S. beef exports.



### The Future for High-Quality Beef

To this point the discussion has been on a review of what has happened to the U.S. beef industry that has been helpful to the overall demand for high-quality beef but now it is of importance to set the stage for where the U.S. cattle industry could go with the expansion of consistent high-quality beef products. The potential is vast but it will require a coordination and commitment that has been elusive in the cattle industry. It is clear that all of the pieces to push the cattle industry into this new growth opportunity are available.

The forward-looking agricultural baseline prepared each January by the Food and Agricultural Policy Research Institute at the University of Missouri (FAPRI-MU) provides a starting point to measure the opportunities available to the cattle industry. The baseline provides a look across many of the major agricultural sectors (FAPRI-MU Report #2-11). This baseline is conditioned on an assumption set that includes information on the general economy, weather and technology growth.

Important to the cattle information shown here is the path of future feed costs. This baseline shows crop prices that remain near current levels for the entire baseline period. This translates into feed costs for all livestock producers that remain at high levels relative to history.

Table 1 provides a detailed look at the FAPRI cattle baseline. The baseline outlook shows cattle prices that grow modestly over the next two to three years. That allows for a small growth of approximately one million head in the beef cow herd in the later years of the baseline. The

expansion in beef production that occurs with the increase in the beef cow inventory is enough to reduce cattle prices in the longer term, yet fed steer prices remain above \$1 per pound each year of the baseline.

**Table 1.** FAPRI-MU U.S. cattle long-term baseline, January 2011.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	(Million Head)										
Beef Cows (Jan. 1)	31.4	30.9	30.5	30.3	30.6	31.0	31.5	31.8	31.9	32.0	31.9
Cattle and Calves (Jan. 1)	93.9	92.6	91.6	91.2	91.3	91.7	92.0	92.4	92.6	92.7	92.5
Cattle Slaughter	35.3	34.4	33.6	33.2	33.2	33.8	34.1	34.4	34.7	34.9	34.9
	(Billion Pounds)										
Beef Production	26.4	25.7	25.3	25.1	25.2	25.7	26.1	26.4	26.8	27.0	27.1
Beef Domestic Use	26.4	25.8	25.5	25.4	25.5	26.0	26.3	26.5	26.8	27.1	27.2
Beef Imports	2.3	2.4	2.7	2.8	2.9	2.9	2.9	2.9	2.9	2.8	2.8
Beef Exports	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.7	2.7
	(Pounds, Retail Weight)										
Per Capita Consumption	59.6	57.6	56.4	55.7	55.4	55.9	55.9	56.0	56.0	56.1	55.8
Prices:	(Dollars per Hundredweight)										
Total All Grades,											
5-Area Direct Steers	95.38	105.49	109.99	110.36	110.80	108.80	107.51	106.18	105.44	104.93	106.01
600 - 650 #, Oklahoma											
City Feeder Steers	115.11	118.85	131.18	134.33	136.06	132.91	130.39	128.29	127.33	126.37	128.62
Boxed Beef Cutout	156.91	172.45	180.71	181.43	182.01	179.67	178.82	177.67	177.24	176.70	179.01

On the demand side, this baseline could be characterized as having some domestic demand weakness for beef, but not to the extent found over much of the historical period of the 1980s and the early 1990s. This demand weakness contributes to per capita beef consumption near 56 pounds throughout the baseline. Beef exports expand but the rate of growth is muted relative to the last few years that included recovery from BSE. This baseline shows a sector little changed from the current situation.

From this baseline view of the cattle industry one can begin to understand the magnitude of the potential that could be available to the beef industry if demand for beef were to increase as a result of providing a product that better meets the needs of consumers by examining a scenario that grows the demand for beef. Because it remains difficult to predict consumer behavior towards meat products, choosing a particular scenario is not an exact science and is therefore open to scrutiny.

In the scenario shown here (Table 2), it is assumed that the combination of increased domestic and export demand adds one percent to total beef use. This one percent growth occurs for five years and then stabilizes at the five percent growth relative to the baseline. In absolute terms, this increases beef demand by 282 million pounds the first year (2012) and grows to 1,429 million pounds by the fifth year (2016). To help frame this beef demand growth assumption, it is

instructive to remember that total chicken consumption grew on average by slightly more than 1,000 million pounds over the 1990 to 2005 period. In contrast, this scenario for beef consumption is an average 846 million pound annual growth level for the 2012 to 2016 period.

The results presented in Table 2 show the dramatic difference that could exist if the beef industry experienced a demand picture similar to the assumptions made here. In the short run, all cattle prices would move higher. Fed cattle prices grow each year of the first five-year period, reaching a positive change of \$13.40 per hundredweight in 2016. Feeder cattle prices increase by over \$25 per hundredweight by 2016. In addition, the cattle industry expands. By 2020, the higher cattle prices result in more than a 5 million head increase in the cattle herd relative to the baseline. It has been decades since the cattle industry has seen the growth shown in this scenario.

The stakes are high when looking at the demand for meat products and how beef demand could change with a larger supply of a more consistent high-quality beef product. These results may seem too large to be realistic, but this is a scenario that closely mirrors what happened in the chicken industry over a long period of time.

**Table 2.** High-quality beef demand scenario.

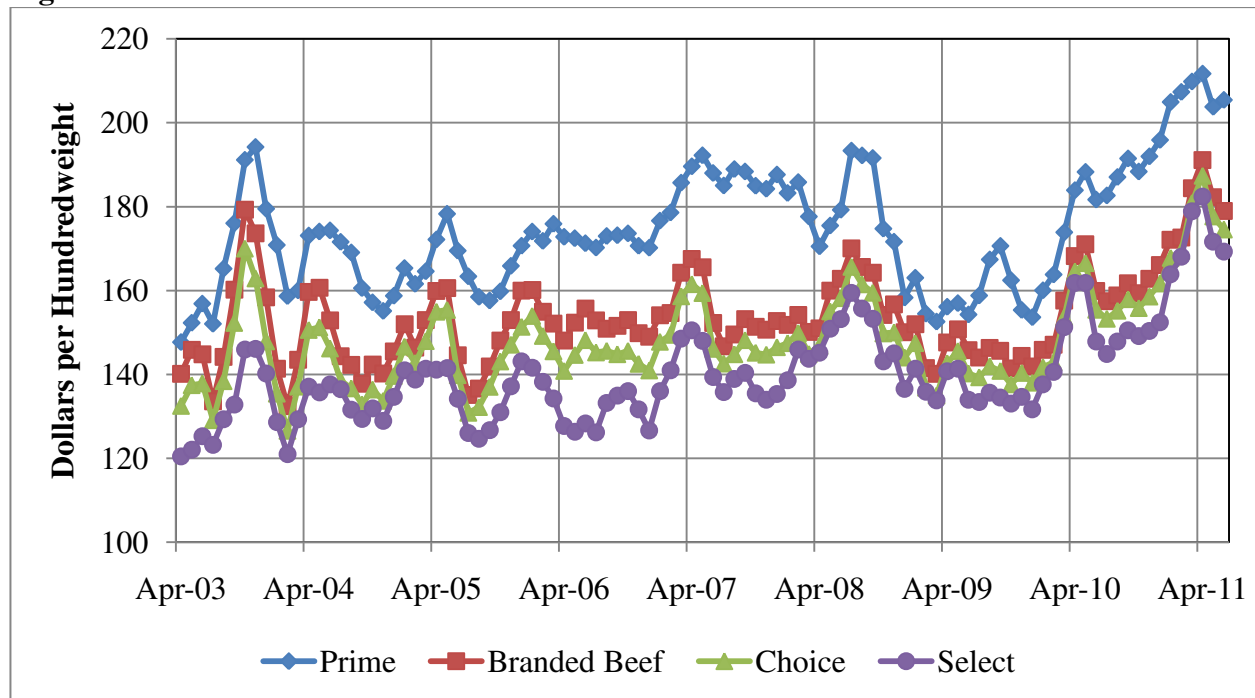
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Scenario</b>											
	(Million Head)										
Beef Cows (Jan. 1)	31.4	30.9	30.5	30.5	31.0	31.9	32.8	33.6	34.1	34.3	34.2
Cattle and Calves (Jan. 1)	93.9	92.6	91.6	91.3	91.8	92.8	93.9	95.2	96.4	97.2	97.6
Cattle Slaughter	35.3	34.4	33.5	33.1	33.2	33.8	34.4	35.1	35.7	36.2	36.3
	(Billion Pounds)										
Beef Production	26.4	25.7	25.2	25.0	25.2	25.8	26.4	27.0	27.6	28.1	28.3
Beef Total Use	28.7	28.2	27.9	27.9	28.1	28.7	29.2	29.8	30.4	30.9	31.1
Prices: (Dollars per Hundredweight)											
Total All Grades,											
5-Area Direct Steers	95.38	105.49	113.81	117.50	120.69	120.61	120.92	116.62	113.09	110.21	109.59
600 - 650 #, Oklahoma											
City Feeder Steers	115.11	118.85	138.45	147.91	154.91	155.49	156.05	148.39	142.16	136.69	135.68
Boxed Beef Cutout	156.91	172.45	185.48	190.31	194.20	194.03	194.93	189.89	185.87	182.34	182.57
<b>Change From Baseline</b>											
	(Million Head)										
Beef Cows (Jan. 1)	0.0	0.0	0.0	0.2	0.5	0.9	1.3	1.8	2.1	2.3	2.3
Cattle and Calves (Jan. 1)	0.0	0.0	0.0	0.2	0.5	1.1	1.9	2.8	3.8	4.5	5.1
Cattle Slaughter	0.0	0.0	-0.1	-0.1	-0.1	0.1	0.3	0.6	1.0	1.3	1.5
	(Billion Pounds)										
Beef Production	0.0	0.0	-0.1	0.0	0.0	0.1	0.3	0.6	0.8	1.0	1.2
Beef Total Use	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.8	1.0	1.2
Prices: (Dollars per Hundredweight)											
Total All Grades,											
5-Area Direct Steers	0.00	0.00	3.82	7.14	9.89	11.81	13.40	10.43	7.65	5.28	3.58
600 - 650 #, Oklahoma											
City Feeder Steers	0.00	0.00	7.26	13.58	18.86	22.57	25.66	20.10	14.83	10.31	7.05
Boxed Beef Cutout	0.00	0.00	4.78	8.88	12.19	14.36	16.11	12.22	8.62	5.64	3.56

### A Focus Back on High-Quality Beef Prices

The scenario at the aggregate level masks some of the important outcomes that result from an increase in demand for high-quality beef. Figure 4 shows monthly boxed beef cutout values over the past few years. There are a number of important points that can be raised from this graph.



**Figure 4.** Boxed beef cutout values.



First, at each increase in beef quality one finds an increase in the value of the product. This has been happening for a number of years already. In addition, the higher the quality of the beef shown, the larger is the increase in the premium. This might suggest that producers strive for prime over all other quality grades. This holds over the full range of time shown in the graph.

General economic downturns like the U.S. experienced in 2009 have a marked influence on consumer behavior towards meat products. Consumers will look for ways to decrease spending on meat products and one alternative is to “buy-down” on the quality side of the equation. That tends to narrow but not eliminate the spread between different quality levels of beef.

The combination of Figure 4 and the results shown in Table 2 provide the information that is needed to conclude that if the demand for high-quality beef increases, those that supply the high-quality beef will be the ones that are the biggest winners under this new demand environment, while those that continue to produce lower-quality beef products (commodity cattle) will not experience nearly the same increase in revenue.

### *The Missouri Recipe*

The focus of this paper has been at the aggregate-level of the cattle industry. It is now time to tie these sector-level results together with the research agenda that has been ongoing at the University of Missouri into the use and application of higher accuracy genetics and the production of high-quality cattle and beef.

Dr. David Patterson has been using a combination of reproductive and genetic technologies at the University of Missouri Thompson Farm for several years and the results that have been accomplished are remarkable.

Standing out in the assessment of Thompson Farm steers that have been fed at Irsik and Doll feedyards over the past three years is that 27 percent of these animals graded Prime. In addition, over 78 percent of the cattle graded CAB or above. Today less than four percent of U.S. cattle achieve the Prime grade.

Patterson's research has shown that the use of high accuracy sires increases the odds of high-quality steers. Patterson's research the past three years shows the use of a high-accuracy sire resulted in 31 percent of the steers grading Prime. This has been a research program with now a proven track record of producing high-quality steers and heifers.

Missouri producers may be in a unique position to grow the supply of Missouri-based high-quality cattle. In research conducted by Babcock, et. al, (2007) they provide analysis of two datasets related to Iowa cattle feeding. These two datasets, the Tri-County Steer Carcass Futurity (TCSCF) program dataset for 2003-04 and the Iowa Quality Beef Supply Network (IQBSN) dataset for 2001-02 contain records on more than 115,000 cattle. These datasets show that less than 4 percent graded prime, 10 percent of the level achieved at the Thompson farm.

Missouri producers have been implementing many of the research protocols developed at the Thompson Farm and are finding similar results. Mike Kasten, owner/operator of 4M Ranch, Millersville, MO, observed an increase in pregnancy rates resulting from adoption of new reproductive strategies that reduced female replacement rates in his herd. As a result, failed pregnancy moved from first to third on his list of reasons for culling females from his herd. This allowed culling to focus on other performance traits at the same time. Not to be lost in the discussion of better economics that result from implementing these reproductive technologies is the resulting time savings. Many cow-calf operators are not full-time. The use of fixed-time artificial insemination (FTAI) protocols allows part-time farmers to participate since they no longer need to heat detect their heifers and cows. A shorter calving season also allows part-time producers to gain valuable time. In addition, the 4M Ranch reports impressive feedlot and carcass results stemming from use of FTAI and use of proven superior genetics. Recently, in a pen of 151 steers, 23 percent graded Prime. Recently, in a pen of 151 steers, 23 percent graded Prime. Even more astounding is the fact that 49 percent of Kasten's cattle graded Prime when looking at those cattle produced from using multiple generations of high-quality genetics. Premiums from producing at the highest quality levels only escalate. The average carcass premium reached \$115.24; and at the same time, these steers had an average daily gain of 3.56 lb/day.

A common perception in the cattle industry is that when feeding for the quality grade that higher yield grades will result. However, a recent report by Walter and Hale (2011) highlights what is at stake when feeding and marketing cattle (Tables 3 & 4). Records were analyzed on 443,129 head of steers from the CAB<sup>®</sup> database over the 2004 to 2009 period. The coverage period allows for a full range of Choice-Select spreads and related feed costs.

Of their conclusions, two stick out: 1) regardless of the market, there are always cattle that make more money than others, and 2) the most profitable steers had the highest weight gain, the heaviest carcasses, the highest percent Choice and Prime, and the highest percent of Yield Grade 4s and 5s. The data summary highlights just what is at stake. Table 3 shows the respective Quality Grade and Average Daily Gain profiles.

This research reports that the most profitable cattle are those that had the highest quality grade and highest average daily gain. The common perception that one must give up some degree of feeding performance to attain improved quality grade is not borne out in this analysis. This research highlights the need for high-quality calves that meet the quality grade requirements while at the same time exhibiting high average daily gains. The over \$40 difference in profitability from the high 1/3 of animals compared to the low 1/3 sheds light on the additional value that will make both cow-calf producers and feedlots better off.

Missouri already plays a significant role in producing calves that grade Choice and higher under today's grading system. Currently, CAB<sup>®</sup> estimates that Missouri-source calves represent at least 10% of total CAB<sup>®</sup> supplies, and perhaps an even-higher share of CAB<sup>®</sup> Prime. That's more than 300,000 cattle yielding nearly 40,000 tons of boxed-product for the CAB<sup>®</sup> brand (Angus Journal, 2010a). The CAB<sup>®</sup> program marketed 775 million pounds of product in 2010, and anticipates the need for a billion pounds of product by 2020. Clearly, there is a significant opportunity for beef producers who can meet this demand.

	Low	Middle	High	All groups
Feed lot placement weight	729	731	724	728
Feedlot finish weight live	1,276	1,291	1,305	1,290
Days of feed	182	179	184	181
Pounds gained in the feedlot	532	547	571	550
Average daily gain	2.97	3.09	3.18	3.08
Average carcass weight	819	826	832	826
% Choice or higher	33.3	51.9	72.8	52.6
% CAB or Upper 2/3 Choice Premium	5.0	9.9	18.0	10.9
% YG 1 & 2	61.3	50.6	37.6	49.9
% YG 4 & 5	8.2	11.7	16.2	12.0
Calculated profit/ loss	18.03	24.02	35.21	25.70

**Table 4.** Average daily gain profile (Walter and Hale, 2011).

	Low	Middle	High	All groups
Feedlot placement weight	714	717	753	728
Feedlot finish weight live	1,213	1,289	1,334	1,290
Days on feed	201	183	160	181
Pounds gained in the feedlot	499	571	581	550
Average daily gain	2.44	3.15	3.66	3.08
Average carcass weight	782	825	847	826
% Choice or higher	49.2	52.3	56.1	52.6
% CAB or Upper 2/3 Choice Premium	10.3	11.2	11.3	10.9
% YG 1 & 2	55.3	51.4	43.0	49.9
% YG 4 & 5	11.2	11.8	13.1	12.0
Calculated profit/loss	4.32	27.69	45.40	25.70

The “*Missouri Recipe*” for production, management, and marketing of high-quality cattle is more than adopting newer reproductive technologies. There are six major pieces to the program that need to be followed to gain the greatest economic advantage from the program. They are:

- 1) Fixed-time artificial insemination of heifers and cows using proven, superior sires and establishment of minimum genetic criteria for bulls to be used with AI and natural service breeding programs;
- 2) Follow health protocols to be administered to calves prior to and at weaning to ensure reduced health-related problems during the postweaning and feedlot phase;
- 3) Use of weaning and preconditioning protocols during the backgrounding phase and prior to placement in feed yards;
- 4) Use of risk management tools in collaboration with feed yards for producers interested in retaining partial or full ownership in their cattle;
- 5) Examine feedlot performance records and retrieval of post-harvest carcass data to evaluate cattle performance; and
- 6) Use economic outcomes to guide selection and breeding decisions in subsequent years.

### Summary

It has been long recognized that the organization of the United States cattle industry does not allow for an optimal flow of economic and non-economic information among stakeholders in beef production (Hueth and Lawrence, 2003). Lost in this breakdown of information transfer is the realization and equitable allocation of potential price premiums for producing the type of beef demanded by today’s consumers (Caswell and Joseph, 2007). It is critical to the U.S. cattle industry to address the current feedback problem so that producers are correctly receiving and responding to the demands of end consumers of beef.

Technologies exist to produce an aggregate supply of beef that is more closely aligned with the preferences of U.S. and foreign consumers, and to do it in a more efficient and consistent manner. However, until there is an economic incentive for participants in the beef industry to invest in these technologies, little progress will be made. This lack of coordination between retailers, packers, feedlots, breeders and cow-calf producers, hinders the competitive position of

the cattle industry in relation to other U.S. meat industries as well as international competitors in beef markets.

The largest disconnect of information transfer appears between feedlot operators and cow-calf producers (Ward and Lalman, 2003). Large numbers of calves today are bought and sold without verifiable information regarding specific attributes affecting the transaction. These attributes include performance characteristics of calves in the feedlot, as well as the potential quality of finished beef. The result is that feedlots fail to add weight to these calves as efficiently as they could, and sellers forego any claim to potential profits for producing animals that generate additional revenue from consumers of beef. This traditional system of pricing calves continues despite potential advances in the cow-calf industry that could substantially improve calf performance in the feedlot and lead to a final beef product that better meets consumer preferences (Fausti, et al., 2008).

Times are quickly changing regarding the marketing of calves and the economic signals among market participants. Missouri cattle industry stakeholders have an opportunity to make significant inroads in further synchronizing the various market participants to ensure Missouri producers that grow high-quality cattle are rewarded. Missouri researchers and producers have already shown they can capture the added value that results from growing high-quality cattle and working with feedyards to market these cattle. However, to continue the growth of high-quality cattle supplies in Missouri will take coordination by many market participants; including cow-calf producers, feedyards, veterinarians, sales barns and academic researchers. However, the gains are real and achievable if further coordination can occur.

This research highlights the increase in cattle prices that could occur if beef demand expands as a result of better meeting consumer preferences for meat in general and beef in particular. The economic incentive already exists to produce high-quality cattle. The added bonus is creating a better demand environment through increasing the quality and consistency of beef. The growth of high-quality beef supplies will allow the industry to be better positioned in both domestic and international markets. This demand growth could turn cattle inventories around and allow for some growth in the next decade. Missouri seems poised to take advantage of the possibilities that exist today for those that produce high-quality cattle and beef. Let's work together as an industry to take full advantage of the door that is open for Missouri.

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