

# Economic and Market Outlook for 2007

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## Highlights

- As of January 1, 2007, the U.S. cattle and calves inventory (beef and dairy) increased about 0.3 million head to 97.0 million head, up +0.3% from a year ago. The new cattle cycle, which began January 2004, is exhibiting modest growth. The inventory of cattle and calves for this cattle cycle is tracking below the expansion years of the previous cattle cycle (1990-2004).
- As of January 1, 2007, the number of cows and heifers (beef and dairy) that have calved decreased about 33,000 head to 42.0 million head, down -0.08% from a year ago.
- As of January 1, 2007, the inventory of heifers 500 pounds and over increased about 102,000 head (+0.5%) from a year ago to 20.1 million head. The inventory of heifers 500 pounds and over held for beef cow replacements decreased about 27,000 head (-0.5%) from a year ago to 5.88 million head. Dairy cow replacements increased about 35,000 head (+0.8%) to 4.3 million head. The inventory of other heifers 500 pounds and over increased about 94,000 head (+0.9%) to 9.9 million head.
- As of January 1, 2007, the 2006 U.S. calf crop was estimated to be 37.6 million head, a decrease of 8,000 head (-0.02%) from a year ago.
- As of January 1, 2007, the number of feeder cattle outside of feedlots was estimated to be 28.3 million head, an increase of 237,000 head (+1.0%) from a year ago.
- 2007 U.S. domestic beef production is expected to increase about 0.6 billion pounds over 2006 to 26.6 billion pounds (+2.2%). The expected increase in U.S. beef production during 2007 is expected due to a larger number of animals to be harvested.
- Net beef supply (domestic beef production plus beef imports minus beef exports) during 2007 is expected to increase 0.5 billion pounds (+1.7%) over last year and should total about 28.5 billion pounds. The 2007 increase in net beef supply is driven by a significant increase in domestic production (+0.6 billion pounds), an increase in beef imports (+0.20 billion pounds), and an increase in beef exports (+0.29 billion pounds). Beef and veal imports are expected to be about 3.28 billion pounds during 2007, while beef and veal exports are expected to be about 1.44 billion pounds. Thus, the expected beef trade deficit is estimated to be about -1.84 billion pounds during 2007.
- Competing meat production (pork and poultry) during 2007 is expected to show some increase compared with 2006. Domestic pork production during 2007 is expected to show an increase of 0.6 billion pounds (+3.1%), while broiler production is expected to increase by about 0.3 billion pounds (+0.8%). Domestic pork and broiler production are expected to increase to 21.7 and 36.0 billion pounds during 2007, respectively. Total domestic beef, pork, and broiler production is expected to increase 1.5 billion pounds to 84.3 billion pounds (+1.8%).
- U.S. beef exports are expected to continue to show slow growth for the next couple of years. 2007 U.S. beef exports are expected to increase to 1.44 billion pounds (+0.29 billion pounds or +25% over a year ago). Growth is expected in

Mexico and Japan. The opening of beef trade with South Korea during 2007 would offer added opportunity to increase U.S. beef exports in 2007. However, current trade negotiations with South Korea are not very promising. It may take 3-5 years to reach pre-2003 U.S. beef export levels. However, the increase in U.S. beef export levels should help provide price support during a time of expected increases in U.S. beef production. Any major changes in U.S. export levels of beef and competing meats (pork and poultry) will likely have a significant impact on U.S. beef prices during the next couple of years.

- The current combination of higher levels of cow slaughter year to date and the minimal change in January 2007 beef replacement heifers compared with a year ago suggests that future cow-herd expansion is questionable. Based on the data available at the time of this writing (March 8th), the July 1, 2007 cattle and calves inventory estimate will likely show at best only a modest increase in U.S. herd expansion. Adverse weather, limited feed and forage availability, higher input prices, and/or lower slaughter cattle prices could force the cattle inventory lower. Thus, herd rebuilding would be temporarily halted.

## Beef Supply Situation

Despite several years of high feeder calf and feeder cattle prices and about eight years of cow-calf profits (returns over cash expenses), U.S. cattle farmers have not robustly increased their inventory of cattle and calves as might be expected. The guarded increases in the inventory of cattle and calves have been constrained by very poor pasture and range conditions affecting more than half of the cow-calf states as well as rising production costs. In addition, the uncertainties associated with beef export trade, BSE, Animal ID, domestic and foreign consumer demand, alternative uses of land, and numerous other issues have also caused many cattle farmers to proceed with caution.

In the January 1, 2007 Cattle report, cattle

farmers told USDA they had about 300,000 more cattle and calves than they did a year ago. However, the number of beef cows that have calved declined about 100,000 head (-0.3%) from a year ago and beef cow replacements decreased about 27,000 head (-0.5%) from a year ago at 5.88 million head. Each of the previous two years beef cow replacements were increased by 200,000 head (+4%). A decline in the January 1, 2007 number of beef cow replacements suggests that herd expansion is presently on hold for the reasons mentioned above. Therefore, the inventory of cattle and calves will not grow as fast as they did during the early stages of previous cattle cycles.

A level inventory of cattle and calves, however, does not mean that total pounds of beef production will grow slowly. A small increase in the number of domestically produced slaughter animals and potentially more live cattle imports (from Canada) will result in an increase in U.S. beef production during 2007 to a level of about 26.6 billion pounds.

## Feed and Forage Conditions

Corn and soybean prices have risen sharply since September 2006 largely due to improved corn demand (for energy uses – ethanol and export demand). At the time of this writing (March 8) December 2007 corn is currently trading at \$4.10/bushel at the Chicago Board of Trade, while November 2007 soybeans are trading at about \$8.00/bushel (December 2007 soybean meal is at \$233/ton). Corn prices paid to farmers over \$4.00/bushel puts this corn market in the top 5% of those received during the last 10 years. The higher corn prices are expected to entice significantly additional acres to be planted in corn. This will likely reduce soybean acres. It has been estimated that an additional 6.5 million acres planted to corn with an average yield of 155 bushels/acre would provide approximately an additional 1 billion bushels of corn for the ethanol industry during the 2007/08 period (based on the present number of ethanol plants expected to be in operation). If fewer than 6.5 million acres are planted, then corn prices will likely move higher. Alternatively, if more than the 6.5 million acres are planted, then corn prices should move lower. Many analysts expect about 8 million additional acres of corn will be planted

and should move corn prices lower to about \$3.00-\$3.40/bushel. The March 30<sup>th</sup> Prospective Plantings report, by USDA, will provide an estimate about the expected number of additional corn acres to be planted this year. Of course, the above discussion assumes adequate growing weather is realized.

The 2007 growing season of the major grain growing regions is presently a popular subject among farmers and the press. If less than adequate growing weather is incurred and some acreage is not harvested or significantly lower yields are realized, then grain (corn and soybean) prices will move higher. How much higher could grain prices move is uncertain, but some analysts are reporting that corn prices could exceed \$5/bushel. To put things in perspective, we are gambling on making the largest corn crop in U.S. history to supply food, feed, energy, and export uses of corn.

Another wild card is the price of oil per barrel in the near future. This adds even more uncertainty to the cattle outlook. Basically, as the price of oil goes up ethanol plants can afford to pay more for corn, which could cause corn prices to rise above the +\$4/bushel. Furthermore, an additional measure of uncertainty is how many ethanol plants will be operational in the fall of 2007 and what is the total capacity of these plants (quantity of corn that will be demanded to operate them). This continues to add uncertainty to corn demand which directly affects feeder calf and feeder cattle prices. Presently, there are several proposed and planned ethanol plants on hold in the South until corn becomes more reasonably priced.

Additionally, pasture and range conditions have not been favorable over most of the cow-calf states the past several years. Particularly hard hit this past year were the southern plains states and southern gulf coast states. Rainfall and snowfall have helped this winter, but the pasture and range conditions are still recovering from the poor to very poor conditions the last several years. Pasture and range conditions will be especially important this year as we attempt to hold feeders on pasture longer to avoid the higher costs of gains in the feedlot. If widespread drought conditions develop, this could also severely depress feeder prices this year.

Total U.S. hay stocks dropped to an 18-year low of 96.4 million tons as of Dec. 1, 2006. Therefore, overall stored hay supplies will be minimal as we move into the grass growing season. Additionally, hay production during 2006 in several states of the Gulf States region realized about a 50% reduction in harvested hay leaving many livestock farmers searching for alternatives (winter grazing, grains, by-product feeds, etc.). Adequate weather during 2007 will be extremely important as livestock farmers attempt to produce and harvest enough hay to prepare for next winter. Both the quantity and quality of hay will be major question marks this year. Higher hay prices are expected during 2007 due to improved demand, limited supplies, and higher input costs. If the weather does not cooperate, cattle farmers should move quickly to procure an ample supply of feedstuffs to feed their cowherds for 120-180 days. This fall alternative winter feedstuffs will be in much demand as cattlemen seek to feed their cowherds. Thus, the cost to winter cattle this year will be higher. A drought of any magnitude will no doubt have a significant effect on cattle production costs and the potential for continued herd expansion during 2007.

## **Beef Demand and Trade**

Beef demand was slightly weaker during 2006, but remained relatively strong. Beef demand felt some challenges this year due to less interest in protein diets and as some consumers experienced reduced grocery budgets due to higher energy prices and interest rates. Beef demand is expected to remain stable for the rest of 2007. Per capita consumption of beef is expected to remain close to 66-68 pounds per person through the rest of the decade, assuming some growth continues in beef exports.

U.S. cattle imports totaled 2.3 million head during 2006, up 26% from a year ago. This estimate reflects the first full calendar year of cattle imports from Canada since 2002. Canada's 2006 U.S. cattle imports were estimated at 1 million head, while imports from Mexico were about 1.3 million head (about even with 2005). The forecast for 2007 U.S. cattle imports is 2.2 million head (-4% from a year ago). This decrease in U.S. cattle imports reflects weaker U.S.

calf prices and a smaller Canadian cattle herd. U.S. cattle exports during 2006 were estimated at 49,000 head. The 2007 projection for U.S. cattle exports is 60,000 head. This analysis also assumes cattle over 30 months of age will not be imported during 2007.

U.S. beef imports totaled 3.1 billion pounds during 2006, down 14% from 2005 due to increased U.S. domestic cow slaughter (caused by widespread drought conditions which produced poor grazing conditions and limited hay production), a shift from Canadian beef imports to live cattle imports, and shifting export patterns among South American exporters (Uruguay shipped more beef exported to Russia, E.U., and other countries, Foot-and-Mouth Disease outbreak in Brazil limited trade, and an Argentina trade policy limiting beef exports to keep domestic prices low). Forecasted 2007 U.S. beef imports are estimated to be 3.3 billion pounds (+6%). This forecast is based on the assumption that U.S. cattle farmers will have normal weather and will not have to cull their cowherds again this year.

U.S. beef exports in 2006 totaled 1.15 billion pounds (+67% from a year ago). U.S. beef exports in 2007 are projected to increase to 1.44 billion pounds (+25%). U.S. beef export markets are critical to maintaining U.S. beef prices. It is very important that the U.S. maintain and continue to grow beef export markets. The expansion of U.S. beef export markets could be worth an additional \$6 to \$8/hundredweight (cwt) to the value of U.S. fed slaughter cattle. Growth in beef export markets will also help to manage the increases in U.S. domestic beef production that is expected through the end of this decade.

## Competing Meats

Both pork and broilers are expected to show increased production next year. Pork production is expected to increase about 0.65 billion pounds (+3.1%) during 2007 compared with a year ago, while broilers are expected to increase about 0.3 billion pounds (+0.8%). There is a trade surplus for each of these competing meats, which means we export more than we import. Therefore, the net pork supply is expected to increase about 0.5 billion pounds (+2.7%)

during 2007 compared with a year ago, while the net broiler supply is expected to increase about 0.2 billion pounds (+0.5%) compared with a year ago.

Any changes in the production levels or export levels of pork and broilers could have a significant effect on U.S. beef prices. Thus, a watchful eye on the production and export levels of competing meats will help identify potential changes in beef prices.

## 2007 Net Beef Supply

The 2007 cattle market will continue to operate with a great deal of uncertainty. Cattle farmers should monitor several factors, including the length, extent and severity of the drought, growing supplies of broilers and pork, export and import sales (beef, broilers, and pork), and consumer beef demand. The cattle markets could experience some volatile movements with abrupt changes in any of these factors or combinations of these factors.

The U.S. net beef supply (domestic beef production plus beef and veal imports minus beef and veal exports equals net beef supply) is expected to show some significant changes during 2007 compared with 2006, as shown in Table 1. Domestic beef production is forecast to increase 0.57 billion pounds (+2.2%), beef and veal imports are expected to post a minor increase of 0.2 billion pounds (+6.3%), beef and veal exports are expected to increase about 0.29 billion pounds (+24.9%). Assuming these increases are realized, the U.S. net beef supply during 2007 will increase about 0.5 billion pounds (+1.7%).

Assuming stable domestic consumer beef demand, the combination of an increase in the U.S. net beef supply (+1.7%) coupled with increases in the net broiler supply (+0.5%) and the net pork supply (+2.7%) will pressure farm level beef cattle prices lower during 2007. Any changes in production and/or export and import levels of these three competing meats could cause major movements in beef prices. Each industry is very capable of significantly altering production levels and subject to wide changes in export and import levels.



## January 2006 and 2007 Feeder Price Comparison

Alabama feeder calf and feeder cattle prices have recently plummeted. The downfall began in early September 2006. The reason for the substantial decrease in feeder calf prices is primarily due to a rallying corn market. Omaha cash corn prices have increased from about \$2.15/bushel in early September 2006 to approximately \$3.78/bushel during January 2007. This is an increase of \$1.63/bushel (+76%). This major increase in corn prices resulted from a stronger demand for corn from the ethanol industry, a smaller corn crop (10.5 billion bushels), and a stronger corn export market.

The January 2007 Alabama feeder prices compared with January 2006 help illuminate how far feeder prices have fallen. Figure 1 describes the feeder calf and feeder cattle prices from Alabama Auction Markets based for various weights of feeders for January 2006 and January 2007.

As you can see in Figure 1, 325 lb feeder steer prices have fallen from \$167/cwt to \$125/cwt between January 2006 and January 2007. This decrease of \$42/cwt results in a decrease in value of approximately -\$135/head. The 725 lb feeder cattle fell from \$109/cwt to \$85/cwt during this time period. This was a \$24/cwt decrease which amounts to a decrease in value of about -\$173/head. Obviously, higher corn prices have had a major negative impact on Alabama feeder prices.

## 2007 Beef Price Projections

Given the above projections in Table 1 regarding the 2007 U.S. net beef supply, beef cattle price projections were estimated for 2007. Beef cattle price projections were estimated by quarter for choice slaughter steers (Nebraska basis), feeder steers, medium and large, #1-#2, 750#, (Alabama basis), feeder steer calves, medium and large, #1-#2, 550#, (Alabama basis), and boning utility cows (Alabama basis), as shown in Table 2. These prices represent the range over which the average price for the particular class of cattle would average for the indicated quarter.

For example, Choice slaughter steers in Nebraska during the first quarter of 2007 are expected to average between \$85 and \$88/cwt. The highest average prices are expected during the second quarter of 2007 for all classes of cattle. The lowest average prices are expected during the third quarter for choice slaughter steers and the fourth quarter for all other classes of beef cattle.

For 2007, choice slaughter steers (Nebraska basis) are forecast to post an annual average in the upper \$80s to low \$90s/cwt. Alabama feeder steers (750#) are expected to average in the low to mid \$90s/cwt, Alabama feeder steer calves (550#) between \$106 and \$110/cwt, and Alabama boning utility cows in the low \$40s/cwt. Breeding heifer, cow, and bull prices are expected to show minor decreases of between 3-5% as herd rebuilding continues.

The simultaneous increases in the supplies of beef, broilers, and pork are expected to pressure meat prices lower during 2007. Driving the increase in net beef supply includes an increase in cattle inventory, heavier carcass weights, and larger levels of beef imports. U.S. cattle inventories are expected to increase from 2004 through 2010. The total cattle inventories are expected to increase between 5 to 7 million head. During this same time period, these increases are expected to increase domestic beef production about 3 to 4 billion pounds and reach about 28 billion pounds of beef production by the end of the decade. These higher levels of beef production will most certainly result in lower beef cattle prices.

Additionally, a significant factor in the net beef supply during the next several years will be the beef balance of trade (beef exports minus beef imports). In 2007, U.S. beef exports are expected to total about 1.44 billion pounds, while U.S. beef imports are expected to total about 3.3 billion pounds. This results in a beef trade deficit of about -1.8 billion pounds. Thus, as U.S. beef production totals grow over the next several years, it is extremely important that we realize significant improvements in U.S. beef exports if we want to avoid burdensome levels of net beef supplies. It would be highly advantageous to cattle farmers if we could grow our beef export levels similarly

to the expected increases in domestic beef production.

As should be expected, the 2007 cattle market has the potential for some big price swings. Abrupt changes in the levels of the factors mentioned above could add much volatility to 2007 cattle market prices. However, cattle market prices should remain cyclically strong if weather, consumer demand, corn prices, and export markets permit.

## Feeder Price Sensitivity Based On Various Corn Prices

Presently, the September 2007 corn futures price is trading around \$4.00/bushel. Will corn prices go up or down between now and September 2007? Some analysts expect corn prices to decrease due to much larger plantings this spring. The current projection is that we would need to see an additional 6.5+ million acres planted this spring with an average yield of 155 bushels/acre to achieve an additional 1 billion bushels of corn for the ethanol industry next year. These analysts feel that more than the 6.5+ million additional acres of corn will be planted this spring thus causing corn prices to decline into the low- to mid-\$3/bushel. And of course, some folks expect corn prices to increase due to some combination of higher demands from the ethanol industry, less than adequate corn acreage planted this spring, a poorer corn growing season which adversely affects yield and/or harvested acreage, and additional export demand. If any of these situations develop, September 2007 corn prices would be expected to increase to around the mid-\$4 to low-\$5/bushel range. If more than one of these items happened, corn prices could approach \$6/bushel.

Given that either one of the above scenarios could happen, let's estimate their impacts on Alabama feeder prices. Table 3 describes an estimate of Alabama feeder steer prices based on various corn prices for September 2007.

The corn price range was set at \$3.00 to \$6.00/bushel with \$0.50/bushel increments. The weight of selected feeder steers ranges between 350- to 750-pounds. The current futures market price for September 2007 corn is about \$4.00/bushel. The

current September 2007 feeder cattle (650-849 lb) futures market price is \$103/cwt, which results in an Alabama Auction price of about \$95/cwt after adjusting for the local basis (-\$8 for this weight of feeder). Historical corn and feeder price data provides us with a benchmark to estimate the change in feeder prices for each \$0.50/bushel move in corn prices. Using the 750-pound feeder steer and the adjusted local cash feeder price of \$95/cwt (see shaded column in Table 3 with corn price of \$4/bushel), a \$0.50/bushel increase in corn price (from \$4.00 to \$4.50/bushel) would reduce the price of the 750-pound feeder steer by \$6/cwt to a price of \$89/cwt. Alternatively, a \$0.50/bushel decrease in corn price (from \$4.00 to \$3.50/bushel) would increase the price of the 750-pound feeder steer by \$6/cwt to a price of \$101/cwt. Similar adjustments are made for the other weight categories of feeder steers. See the footnote at the bottom of Table 1 for more explanation about the estimated feeder steer market price adjustments.

So, what should I do? Cattle farmers will want to pay close attention to the corn market this year. Corn futures market prices may be viewed daily at <http://www.futuresource.com> (click on grains at the bottom of the webpage). The potential volatility in the corn prices could be large given the large number of factors affecting the corn market. Should corn prices move higher, cattle farmers should attempt to get some price protection on their feeders. Check out a futures hedge or futures options on feeder cattle. For information on futures and options, see <http://www.futuresource.com>, click on meats at the bottom of the webpage, click on the button to the left of feeder cattle. However, if corn prices move lower, stay in the cash market and enjoy the rise in feeder prices.

When it comes to cattle marketing, everyone has and will make some mistakes. I heard an old timer once say, "The markets are always right. It's the human beings who have formed the wrong opinions about the market." Those who learn from their mistakes will make fewer and smaller mistakes in the future. Those who make fewer and smaller marketing mistakes will generate higher net revenues. Good luck with your cattle marketing during 2007!

Table 1. U.S. net beef supply (billion pounds), 2005-2007.

| Item                     | 2005         | 2006 | 2007 |
|--------------------------|--------------|------|------|
|                          | (Billion lb) |      |      |
| Domestic beef production | 24.7         | 26.1 | 26.6 |
| Beef & veal imports      | 3.6          | 3.1  | 3.3  |
| Beef & veal exports      | 0.7          | 1.2  | 1.4  |
| Net beef supply          | 27.6         | 28.0 | 28.5 |

Table 2. Estimated average beef market prices by quarter, 2007.

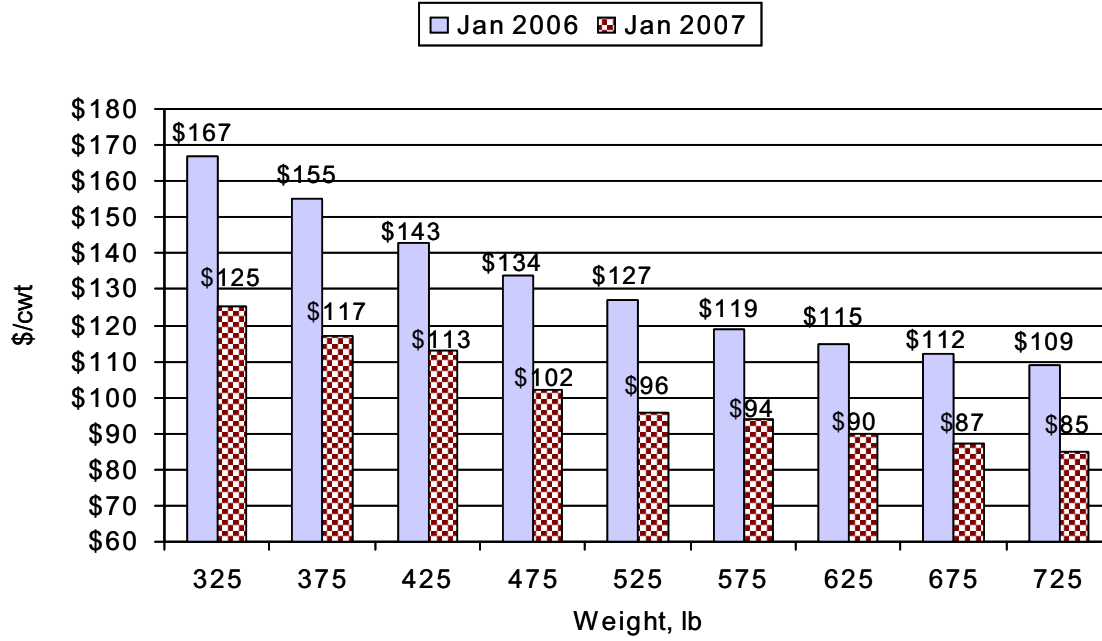
| Item  | 2007<br>1 <sup>st</sup> qtr | 2007<br>2 <sup>nd</sup> qtr | 2007<br>3 <sup>rd</sup> qtr | 2007<br>4 <sup>th</sup> qtr | 2007<br>Avg |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
| Nebraska slaughter steers,<br>Choice live price, \$/cwt               | 87-90                       | 91-94                       | 88-91                       | 90-94                       | 89-92       |
| Alabama auction feeder steers,<br>Med & lg #1-#2, 750#, \$/cwt        | 92-94                       | 95-97                       | 96-99                       | 94-96                       | 93-96       |
| Alabama auction feeder steer calves,<br>Med & lg, #1-#2, 550#, \$/cwt | 106-109                     | 111-115                     | 111-115                     | 105-110                     | 106-110     |
| Alabama auction boning utility cows,<br>YG 1-3, \$/cwt                | 39-42                       | 43-47                       | 42-45                       | 39-43                       | 40-43       |

Table 3. Estimated feeder steer prices based on various corn prices, Alabama auctions, September 2007.

| Weight<br>(lb) | Corn price, \$/bu |        |        |        |        |        |        |
|----------------|-------------------|--------|--------|--------|--------|--------|--------|
|                | \$3.00            | \$3.50 | \$4.00 | \$4.50 | \$5.00 | \$5.50 | \$6.00 |
|                | \$/cwt            |        |        |        |        |        |        |
| 350            | \$162             | \$147  | \$132  | \$117  | \$101  | \$86   | \$71   |
| 450            | \$142             | \$130  | \$118  | \$107  | \$95   | \$83   | \$71   |
| 550            | \$124             | \$115  | \$106  | \$97   | \$89   | \$80   | \$71   |
| 650            | \$113             | \$106  | \$99   | \$92   | \$85   | \$78   | \$71   |
| 750            | \$107             | \$101  | \$95   | \$89   | \$83   | \$77   | \$71   |

Assumes each \$0.50/bu increase in corn prices will result in a corresponding feeder steer price decrease of \$15.25/cwt, \$11.75/cwt, \$8.75/cwt, \$7.00/cwt, and \$6.00/cwt for 350 lb, 450 lb, 550 lb, 650 lb, and 750 lb feeder steers, respectively.

Figure 1. Alabama feeder steer calf price comparison, Alabama auctions, January 2006 and January 2007.





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