Key Beef Cattle Marketing Concepts

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Marketing, for managers of beef cattle enterprises, means two things. First, it is using market information, such as prices and trends, to direct the farm and provide information for good management decisions. For example, if black-hided cattle top the market, the manager should decide if the market premium justifies a production system that will produce black calves for sale.

The second purpose of marketing is to get the most out of the cattle that are sold and to pay the least for cattle and other purchased inputs. This must take into account both immediate and long-term needs. It must also recognize that price is only one part of the equation. Paying a low price for replacement heifers may be a bad decision if the quality does not match your needs.

Of course, all of this depends on the effective working of the cattle and beef marketplace, so that is the starting point.

How Beef Prices Are Determined

Feeder cattle prices are very dependent on the overall beef and slaughter cattle market. Many factors affect beef prices, but it appears that the most important is the supply/demand relationship at the retail level, where prices are continually being renegotiated. The retail market consists of a few large sellers (IBP, Montfort, Smithfield, ConAgra) confronting a few large retailers (Kroger, Wal-Mart, Meijer's, etc.). The packers know about beef supplies, quality, and costs. The retailers, especially with the scanner data, know about consumers' willingness to pay. Industry sources suggest that most of the negotiating occurs on a weekly basis. The bottom line is that beef prices are negotiated between the big packers and big retailers and then that sets a starting point for the rest of the beef/cattle industry. There is a "trickle down" through the rest of the industry.

The next level of the system is the packing plant/harvest level. Since prices are often determined several weeks in advance, the packer has a good idea of what the various cuts of beef will be sold for. When the values of all the cuts are put together, this produces a "cut-out carcass value." So when a buyer talks about the cut-out value changing (let's say it goes from $1.15 per pound up to $1.20), that means that the packer is getting $0.05 more per pound of carcass. For a 700-pound carcass, the total value will have gone up by $35. This is important for the producer to know because this is $35 more the packer can afford to pay for a slaughter steer or heifer—if there is enough competitive market pressure.

Packers pay for cattle in two ways. The traditional method is a pure cash, liveweight basis. For example, if the market price is $70 per hundredweight, a 1,200-pound steer would bring $840. Typically, the packer buyer will look at a lot of cattle, estimate the average quality, and then give an average price for the group.

Suppose a pen of cattle in the feedlot is ready for sale, and the packer buyer estimates that 80% will make the Certified Angus Beef grade. With an average $3 per hundredweight premium over USDA Choice cattle, the price would be $72 per hundredweight, which is the base price of $70 with a $2 quality adjustment. In this situation of a cash sale with an incentive, an average 1,200-pound steer in the pen would earn $864, or $24 per head more for the higher quality.

An increasingly common practice is to price the cattle on a carcass basis, commonly known as "grid pricing." With grid pricing, the feedlot is getting paid for pounds of *carcass*. Animals are individually graded, and prices are adjusted for quality grade, yield grade, carcass weight, and other factors such as Certified Angus or dark cutters.

For example, suppose the 1,200-pound steer used in the previous example yields 62%. This means that the producer is selling a 744-pound carcass. With a base carcass price of $1.12, the 744-pound carcass would be worth $833. If another steer's yield was 64%, its carcass would weigh 768 pounds and would be worth $860. This is the first step in grid pricing. The second step is to adjust the payment based on a variety of premiums and discounts.

Sample Grid Premiums and Discounts

- $8/cwt. for Choice over Select
- $20/discount for Yield Grade 4 compared to Yield Grade 3
- $3/cwt. premium for Certified Angus Beef
- $15/cwt. discount for carcasses lighter than 550 pounds or heavier than 900 pounds

The grading of the carcass dramatically affects value. Often there is a difference of more than $200 per head between the better cattle in a pen and the poorer ones. It is important to recognize that selling on the grid gives a more accurate price, more closely related to quality. (Table 9-1 illustrates a typical grid pricing schedule.) It tends to reward better quality pens of cattle, but there is much variation among packing plants, so sellers have to analyze the offers carefully. Quality for companies like Laura's Lean Beef is defined much differently than quality for Excel.

Table 9-1. Example of a typical set of carcass premiums and discounts in a slaughter cattle grid.

	YG 1	YG 2	YG 3	YG 4	YG 5
Prime	$8.00	$5.00	$3.00	($17.00)	($22.00)
Choice	$5.00	$2.00	$0.00	($20.00)	($25.00)
Select	$0.00	($3.00)	($5.00)	($25.00)	($30.00)
Standard	($15.00)	($18.00)	($20.00)	($40.00)	($45.00)

Note: YG 1, YG 2, etc., refer to USDA Yield Grades; Prime, Choice, etc., refer to USDA Quality grades. Numbers are $/cwt. adjustments to base carcass values. Unshaded numbers indicate premiums; shaded numbers indicate discounts.

Next along the line of price determination comes the feedlot. Feedlots buy feeder cattle based on expected profitability. Their expected selling price is a starting point. Often feedlots will look at Chicago Mercantile Exchange live cattle future prices for the expected future sale date as a guide. Suppose it is November, and the feedlot is considering purchasing 700-pound steers to eventually be sold at 1,200 pounds. The gain of 500 pounds will take about five months at an average daily gain of 3 to 3.5 pounds per day. Since these calves would be expected to hit the market in April, the feedlot would use the April futures as a guide to expected sale price.

Next the feedlot considers its costs—feed, yardage, profit, veterinary care, and medicine. After deducting these, it has some idea of what it can pay for the feeder calves. The feedlot manager will also consider key calf quality factors. All of these have a big impact on actual price, and they are why feeder cattle producers need to carefully consider the types of cattle they produce.

Calf Quality Factors Affecting Feedlot Demand

- expected feed efficiency
- health and death loss
- expected carcass quality and yield

Other Market Considerations

Other market considerations are:

- source (will the calves be trucked a long way?)
- reputation of the seller and the cattle dealer
- size of the lot
- how well the cattle in the load fit together.

These factors all determine the ability of the feedlot to pay for the calves, but the bottom line becomes the competitive conditions of the market. With a tight supply of feeder cattle, prices often exceed the likelihood of producing a profit based on futures prices for live cattle. This typically happens because feedyard operators are trying to keep pens full, and some custom finishers are speculating on higher prices. Alternatively, when feeder supplies are plentiful, feedlots have the opportunity to be choosy buyers, and prices for similar types of cattle may be somewhat lower.

The more profitable the feedlot is, the more it can afford to pay for feeder cattle. The calves are the "adjustment" factor. Feedlots see calf price as the key factor under their control. So when feed costs increase, their profits will decline unless they pay less for feeders. While one feedlot cannot control the feeder calf market when feed costs increase, breakeven bid prices for feeders decline for all feedlots, and lower demand pushes prices down. There is roughly an 8:1 opposite impact of corn price on 700-pound feeder steer bid prices. So a $0.50 per bushel increase in corn price will push feeder steer prices down by about $4 per hundredweight. For 500-pound calves, the impact is even greater: there is a 12:1 impact of changing corn price on the calf breakeven price.

Impact of Changing Corn Price on Feeder Cattle Prices

Rule: Change in corn price x 8 = Impact on 700-lb. feeder price

Example: Corn price ⇧$0.50/bu. = $4/cwt. ⇩feeder price ($0.50/bu. x 8 = - $4/cwt.)

Using Marketing Information in Management Decisions

To successfully run the beef enterprise and make good decisions, you need to make a range of short-term, medium-term, and long-term decisions. An example of a short-term decision might be what to feed calves. A medium-term decision is whether a backgrounding/grazing enterprise would be profitable this year. An example of a long-term decision is how many cows to have. Each of these decisions is based on lots of information, one piece of which is marketing information. This is another example of the need to integrate many sources of information and data.

Many of these decisions begin with a careful budget analysis. The budget is one of the key management tools. But what data do you put in each category? Much of the data comes from your records, but often you need to use market information, actual or forecasts, to complete the budget.

A backgrounding budget is a good example (Table 9-2). Feed usage and gains should come from your own farm history if you have tried backgrounding in the past. However, feed prices and expected sale prices for calves need to come from market analysis. Once the base budget is prepared, you will want to use it to help you look at several decisions. In this backgrounding example, you probably have the choice of feeding steers or heifers; you can choose many different starting weights of calves and plan on different ending weights; you can buy cheap, poorly managed calves and upgrade them; or you can buy more expensive but higher-quality calves. Each of these should be a conscious decision based on expected outcomes. You could start with a mix of high- and low-quality cattle, but if you did, you would not only face tough management problems with the cattle but would also lose market potential because of the mix of calves leaving your farm.

Marketing Terms and Background

Price Slides

Feeder cattle prices vary by weight. Generally, the heavier the calf, the lower the price. The reason for this is that a heavier feeder steer or heifer is worth less *per pound* to a feedlot. Feeder heifer calves sell for lower prices than steers for similar reasons. Overall cost of gain is about 10% more for heifers than for steers, so feedlots will only buy them at lower prices.

High feed costs reduce the price differences between lightweight and heavyweight feeders. For example, in 1996 when corn prices were more than $4 per bushel, the difference in Kentucky between 450-pound steers and 750-pound steers was only $2 per hundredweight, compared to the more typical $15 to $20. Table 9-3 shows price slides derived from Kentucky market averages in May 2003.

Table 9-2. Steer backgrounding budgets.

	Silage & Protein	Corn & Hay*
Purchase wt.	400	400
Average daily gain	2.1	2
Sales wt.	700	700
Days in program	143	150
Feed/Day	**Silage & Protein**	**Corn & Hay***
Corn		7.5
Mixed hay		6.0
Silage	40.0	
Soybean meal	1.5	1.0

Cost - Weight Gained	Price	Unit	Silage & Protein	Corn & Hay*
Feeder calf	$1.00	lb.	$400.00	$400.00
Corn	2.25	bu.		45.00
Hay	40.00	bu.		18.00
Silage	16.00	bu.	46.00	
Soybean meal	0.12	lb.	26.00	18.00
Misc. (hay)	0.10	day		15.00
Misc. (silage)	0.15	day	21.00	
Misc. (e.g., medicine)	10.00	head	10.00	
Interest (on calf value)	6.00	pct.	10.00	10.00
Death loss	3.00	pct.	12.00	12.00

Totals			Silage & Protein	Corn & Hay*
Feed cost-total			$71.00	$81.00
Feed cost/lb. gain			0.24	0.27
Total cost			524.00	528.00
Non-calf cost			124.00	128.00
Cash cost (feed, misc.)			81.00	91.00
All cash costs			481.00	491.00
Cost/pound of gain			0.41	0.43
Selling price	$0.88	lb	616.00	616.00
Returns over listed expenses/head			$92.00	$88.00
Breakeven (per pound)			$0.75	$0.75

* Full feed.

Table 9-3. Example of price slides.

	Steers	Heifers
Weight (lb.)	**$/cwt.**	
300-400	137	122
400-500	126	114
500-600	114	105
600-700	102	95
700-800	96	89

Kentucky Market Avg., Feb. 2005.

Table 9-4. Geographic differences in feeder steer prices.

	Ky.	Ga.	Tenn.	Kan.	Okla.
Weight (lb.)	**$/cwt.**				
500-600	124	119	124	138	135
700-800	98	99	102	110	108

Based on USDA Market Reports March 11, 2005

Geographic Price Differences

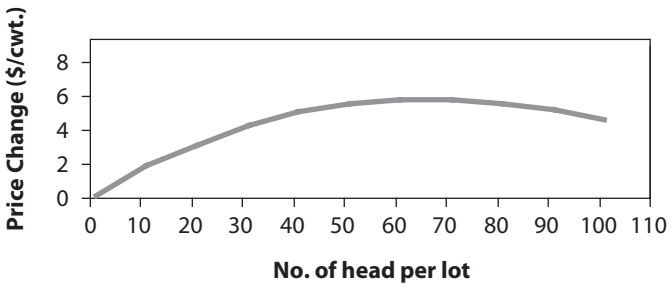
Feeder cattle must be finished (fed to slaughter weight) to create value. This makes feedlots the customers for most feeder calf producers. Feedlot managers have the option to buy calves nearby or from distant locations. To be competitive, calves from the Southeast must be priced lower enough to offset transportation costs (trucking, shrink, stress, etc.) so that the net price is competitive with that of other sources, such as a local ranch or stockyard. Notice in Table 9-4 how relative prices differ according to the geographic area. As you can see, steers in Kansas are worth more per hundredweight than steers in Kentucky due to their relative proximity to feedyards.

Load Lot Selling

Feedlots manage cattle as a group. Ideally, they will give a pen of cattle the same feed and market them as a group. (In the real world, there is enough variability that pens will be sorted and marketed in two or three groups.) As a result, feedlots want to start with loads of cattle as similar (homogeneous) as possible.

Another factor is truck size—generally 50,000 pounds of cattle are hauled together, 70 to 100 head. For this reason, loads of feeders that are similar in breeding, weight, sex, and frame get higher prices. Notice in Figure 9-1 how lot size has a significant impact on the price per hundredweight. Most of the cattle leaving Kentucky have been sorted to create these uniform lots. The research shows that producers who market groups of 15,000 pounds and more capture most of the market price premium for lot size.

Figure 9-1. Impact of lot size on price (600-900-lb. feeder steers).



Direct (or "On-Farm") versus Stockyard Selling

Most feeder cattle in Kentucky are sold by one of two methods: stockyard auction or directly to an order buyer/dealer. Two functions must be done—one is pricing, and the other is the physical part of handling and sorting. Competition is used to create fair or efficient prices. (In economic theory, this is called "pricing efficiency" or "pricing accuracy.") The general measure of pricing performance is that price should equal value; better quality means better prices. When there is more buying power at a market, prices will move up to their efficient level, but there is generally a maximum level determined by the underlying quality/value of the livestock that is not passed no matter how many buyers are at a market.

Stockyards provide a place to bring buyers and cattle together. They also provide marketing services, such as sorting, and charge a fee for doing so. Some stockyards charge a per head fee; others charge a percent of sale price. Fees typically are in the $15 to $20 per head range.

Some producers prefer to save the stockyard fees and sell directly to order buyers ("on the farm"). For larger groups of cattle, dollar savings can be significant. Typically, sellers privately negotiate prices with the order buyer. This puts the burden on the seller to know the quality of his/her cattle and current market trends because it is rare that he/she has several competitive bids to choose among. Farmers need to carefully compare cost savings (stockyard fees and trucking) with sale prices to determine which of these two methods gives the greatest net revenue.

Shrink and "Pencil Shrink"

When animals are marketed, they lose weight. Feeder calves coming off lush pasture may lose 5 to 10% of their weight from the time they leave the farm until they reach their feedlot destination. When handled properly, most of this weight is quickly gained back. However, if cattle are stressed, not given access to water and feed appropriately, or during extreme weather conditions, shrink leads to stress and serious health problems.

Cattle sold directly are often priced with a "pencil shrink." This is a percent adjustment to sale price to account for weight loss during marketing. Always use the net price (that is, after adjusting for pencil shrink) to compare a direct sale offer with a reported market price. The example below shows how you can use the pencil shrink to find an actual net price.

Pencil Shrink Example
Starting sale price: $80/cwt.
Pencil shrink: 3%
Net price: $77.60
(0.03 x $80 = $77.60)

Electronic, Satellite, and Internet Selling

For more than 10 years, producers have been able to consign and price cattle by auction but hold the cattle on the farm until price has been settled through alternative marketing methods. In the early 1980s, Kentucky experimented with "board sales." The method was slow to be adopted, but during the 1990s, a few producers began using satellite sales. Cattle are consigned and videotaped, and potential buyers can use the descriptive information and video footage to buy. The advantage for the producer is that prices are determined in competitive auction bidding, but handling costs are kept to a minimum. When cattle are hauled to a stockyard, it is difficult to reject an offer; with satellite sales, that is not a problem. Cattle "no-saled" may only be subject to a $2 per head listing fee.

Kentucky stockyards are beginning to offer video/Internet sales in conjunction with their regular auctions. Bids for groups of cattle brought to the stockyard are being submitted over the Internet. Similarly, cattle can be videotaped and consigned but kept on the farm. Buyers at the stockyard, as well as those watching on the Web site, can bid on those cattle. Selling fees for these sales methods are comparable to stockyard sales.

Commingling

Because of the importance of uniform, full-truckload lots in reducing marketing costs for feeder cattle and increasing selling prices, cattle from more than one seller may be grouped together for marketing. This is "commingling." This practice allows farmers who are selling only a few head to capture the benefits of full-load marketing. Producers can put cattle together before delivery at a stockyard (and deliver a larger group). Another and easier alternative is to participate in a Certified Preconditioned for Health or other "special" sale where cattle are sorted and penned into homogeneous groups at the stockyard.

Preconditioning

Often feeder calves are sold directly off the mother cow, without adjustment to being weaned. The result is excessive stress, and a high percentage of these calves become sick. Alternatively, calves can be preconditioned to expected market and feedlot stress. Programs vary widely but generally include vaccinations and quality feeds.

Benefits include market premiums and higher selling weights. Preconditioned calves can be sold based on the farmer's personal reputation or can be certified (such as the Kentucky Certified Preconditioned for Health program) and sold independently or through special sales.

Traditional Marketing Decisions

Seasonality

There is no general rule about the best time of the year to sell. The goal is to maximize net returns (profit), not price. For some producers, spring selling can be most profitable; for others, fall sales are best, even though October and November are the months when feeder steer and heifer prices have historically been the lowest.

The following tables and graphs show seasonal price indices for Kentucky feeder cattle prices. The indices are shown as percentages of year-average prices, i.e., the difference that the price is above or below the yearly average. For example, the index of 105% for April for 400- to 500-pound steers means that the April price averages 5% more than the year average. Table 9-5 lists Kentucky seasonal price indices for steers and heifers. Figures 9-2 and 9-3 illustrate the difference in seasonal price indices between different weights of steers and heifers.

Seasonal price indices can help in longer-term planning and marketing planning. Farmers who compare spring with fall calving seasons can use seasonal price indices to estimate the premium that fall-born calves to be sold in the spring will earn over spring-born calves sold in the fall. If the increased revenue for the herd exceeds the added costs (winter feed, for example), fall calving might be a viable alternative.

Table 9-5. Seasonal price indices for medium- and large-framed No. 1 Kentucky feeder cattle.

	Steers (%)					Heifers (%)				
	3-4 wt.	4-5 wt.	5-6 wt.	6-7 wt.	7-8 wt.	3-4 wt.	4-5 wt.	5-6 wt.	6-7 wt.	7-8 wt.
January	99	98	97	97	98	97	97	96	97	98
February	102	101	99	97	97	100	100	98	97	98
March	104	104	103	99	97	104	103	101	98	97
April	103	104	103	100	97	105	104	102	99	97
May	100	101	102	100	98	103	103	102	99	98
June	99	101	102	102	102	102	103	103	103	101
July	99	100	102	103	103	100	101	103	104	103
August	100	100	101	103	103	100	101	102	104	103
September	99	98	99	101	103	99	99	101	102	103
October	96	96	97	99	101	96	96	98	100	101
November	97	97	97	99	101	96	96	96	98	100
December	100	99	98	99	101	98	98	98	99	101

Kentucky Auction Market Average 1995 through 2004.

Figure 9-2. Kentucky feeder steer price indices.

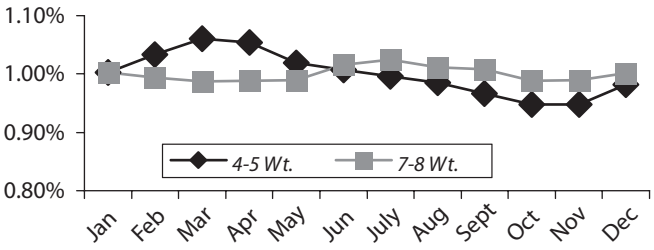
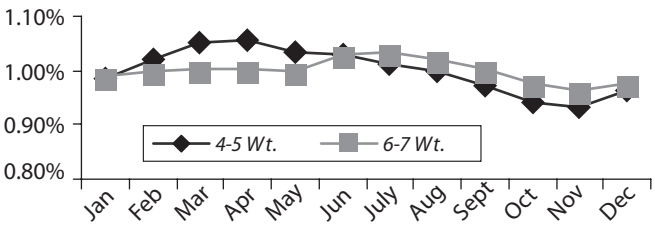


Figure 9-3. Kentucky feeder heifer price indices.



Cattle Cycles and Long-Term Planning

Cattle cycles are long-term patterns of changes in the cattle inventory, leading to variability in supply and thus cattle prices. Cattle cycles average 10 to 13 years in length, with expansion, turnaround, and liquidation phases. Much has been written on cattle cycles, explaining how the cycles work, the impact on cattle prices, and management strategies for cow-calf operations.

If managers were perfect in following the market, they would have lots of cattle to sell when prices are high and few when prices are low. However, being 100% market driven ignores the impact of changing output on production costs and profitability. With high levels of fixed costs in pasture, fence, machinery, and management, if an operation reduces production, its cost per unit (hundred pounds of feeder calf) is likely to increase, and profits will be low.

The best long-term cow herd management strategy is probably to focus on efficient utilization of the farm's forage base and use an understanding of the cattle cycle to establish long-term planning prices. Expansion can be focused on times when prices are relatively low. Backgrounding and grazing enterprises can be used as alternative marketing methods when the prices of weaned calves are pushed down due to liquidation of cattle.

The timing of feeder cattle marketing is often based on tradition, seasoned with a little short-term adjustment based on market conditions. Many producers have built a production system oriented toward fall sales. "I always sell in November" is not a rare statement. However, even these producers are sometimes forced to consider other marketing plans, due to cash needs or perhaps lack of feed due to summer drought.

Short-Term Marketing—Keep or Sell?

One way to make the short-term marketing decision is with a partial budget analysis. What future price would be needed to justify holding onto the calves for another few weeks or months? This figure is comparatively simple to calculate. Here is an example: A farmer typically sells calves in early November. However, this year, due to drought, he is going to have to start using hay beginning in early September. Should he send the calves to market in September, giving up sale weight, or should he buy the hay and sell in the traditional November time?

Here are our assumptions:

- September calf weight: 425 pounds
- average daily gain during September and October: 1.5 pounds
- cost per day: $0.30
- current market price for calves: $0.90.

In this situation, the calves are worth $382 per head. If they are kept for 60 days, they will weigh 90 more pounds (515 pounds). The cost of keeping the calves is $18 per head ($0.30 per day x 60 days) plus the original cost of the calves, for a total of $400 per

head. Given our assumptions, the breakeven cost for the 515-pound calves the producer will have for sale in early November is $78 per hundredweight ($400/515 pounds). In a typical year, prices will decline about 4% from early September to November, and the price slide will result in prices for 500-pound calves being about $10 per hundredweight lower than 400-pound calves. This means that we would expect, based on September prices of $90, that November prices would be $76 per hundredweight for the 515-pound calves. The analysis shows that the producer should sell the calves in early September unless he has a strong belief that the overall beef market will trend upwards.

If the costs are less (say, $0.20 per day) or the gains greater, the breakeven cost will be lower, and it might be worth holding the calves until November.

Market News and Forecasts of Cattle Prices

Market news reporters from around the country feed prices into a national system that is publicly available. Kentucky provides a weekly "Livestock and Grain Market Report," by U.S. mail or e-mail. It is available at www.kyagr.com or by calling 502-564-4896. Market news for feeder cattle in other locations, slaughter cattle and meat prices, feed ingredients, and trade is available from the USDA's Agricultural Marketing Service. The Livestock Marketing Information Service (www.lmic.info) is one of the best historical database sources of this information. Fee-based market news systems include DTN and the Farm Bureau's "ACRES" system. Current Chicago Mercantile Exchange prices for its contracts and graphs of historical trends are available on its Web site (www.cme.com).

One of the toughest marketing problems facing farmers is price forecasting. There is continual uncertainty and a complete lack of tangible criteria for predicting prices. One source of assistance is price analysts. Many forecasts are readily available to producers. Private services, such as consultants and Cattle Fax, are fee-based. Public sources, including university, USDA, and the Livestock Marketing Information Center, are available at no cost. In the past, farmers often depended on monthly publications, which were out-of-date by the time they were published. Now farmers can have real-time access to market reports, information, and analyses through Internet-based sources. A variety of Web sources are included in the appendix to this section.

All analysts depend on USDA data for estimates of supply and demand. On the supply side, key reports are the monthly Cattle on Feed report and the biannual Cattle Inventory reports. The Cattle on Feed report, based on data from major feedlots, gives the number of cattle "on feed," "marketings," and "placements" (number of cattle going into feedlots) of cattle for the reported month along with comparisons with previous years. The flow of cattle from feedlots to packers is a key indicator of beef supplies moving to harvest. The Cattle Inventory report with the number of all cattle as well as cattle by class (beef and dairy cows, replacement and feeder heifers, calf crop, steers, etc.) helps analysts understand long-term trends of expansion and liquidation. Beef production can be estimated from the slaughter reports. Finally, retail price and trade data collected by the USDA round out the economic picture.

Futures markets are a legitimate source of marketing information. They are continually updated to market conditions by the actions of traders. Users need to know that futures prices are not a certain guide, but research has shown that they are one of the better forecasting tools available.

Futures can be used by producers in two ways. One is as a predictor of trends. By monitoring a given future month, changes reflect changing expectations. For example, an upward trend in the November feeder cattle futures contract suggests that actual cash prices are expected to increase.

A second way to use futures is to adjust them to local conditions. This helps convert them to specific prices for various classes of cattle at given locations. The key to this technique is the use of an adjustment factor, which is based on historical local and futures prices. In futures trading and hedging, these adjustment factors are called "basis." Basis is the difference between local and futures prices for a specific class of cattle. For example, if the futures price is $86 per hundredweight and the price at Lexington for 550-pound steers is $94 per hundredweight, the basis is +$8 per hundredweight

Table 9-6 is a set of adjustment factors (i.e., basis data) that can be used to adjust feeder cattle futures prices to Kentucky price and help in price forecasting.

Table 9-6. Cash to futures adjustments ("basis") based on Kentucky auction market average (1995-04) 700-800 wt. steers.

January	($6.43)
February	($5.15)
March	($4.71)
April	($4.43)
May	($4.31)
June	($5.17)
July	($5.50)
August	($5.98)
September	($6.56)
October	($8.30)
November	($8.76)
December	($7.06)
Annual average	($6.03)

Price Risk Management and Use of Futures Prices

Beef operations are exposed to three general types of risk. One is personal risk—the impact of personal illness or injury on the farm operation. A second is production risk. Drought can reduce the amount of pasture available and reduce gains. It can also lead to increased feed costs, hurting the operation directly or indirectly through lower demand from feedlots. Cattle sickness can increase veterinary costs and reduce income. The third category is market risk—changes in income from unexpected changes in market prices.

Four tools are available for price risk management—contracting, Internet sale with delayed delivery, hedging with futures, and price insurance with options.

- **Contracting** is a method to set prices ahead of time. This is an informal arrangement between producer and buyer, with price agreed upon for a future delivery date and set of conditions. One type of contract is a grazing production contract. In this situation, a cattle owner provides the cattle, the farmer grazes and manages the cattle on a fee basis, and the cattle owner takes delivery at a future date.

- **Internet sale with delayed delivery** is in an experimental stage. It is like contracting in that price is determined ahead of time. However, in this situation, price is determined by auction bidding, and the consigner selects the delivery time. A price slide is used to adjust prices if the weights are higher or lower than expected.
- **Futures hedging** is a traditional price risk management tool. Hedging provides a "lock in" return. A position is taken in the futures market so that income comes in when cattle markets decline and vice versa. As a result, the balance of futures and cash markets gives a stable net return. The expected net "hedge" level is calculated by adjusting the delivery month futures price to local conditions using historical basis data.
- **Price insurance with options** is a method chosen by many producers because it is more flexible in many ways than a traditional hedge, and it sets a floor but not a ceiling price. It is like insurance in that an option position can be bought (the fee is called a "premium" just like insurance) that will provide a payment in the event of a market crash. The cost of buying price insurance with options varies but often is about $1 per hundredweight and will be at a price level $1 to $2 per hundredweight lower than the hedged level.

The fact that only a small minority of Kentucky feeder cattle producers choose to use price risk management tools makes it clear that contracting, futures, and options are not for everyone. Enterprise size is important—feeder cattle futures contracts are for 50,000 pounds (60 to 80 head). Lack of experience is another factor making producers wary. In addition, research shows that variability in the difference between futures and local prices, while small compared to overall market variability, reduces the impact on risk reduction. From a practical perspective, larger backgrounders, grazers, and a few cow-calf operations have been the most common successful Kentucky users of futures and options. Various workshops and self-study materials are available for producers who want to learn more about futures and options market tools for price risk management.

Traditionally, producers have used price risk management tools to deal with the impacts of feed costs, unexpected changes in supplies, and market reactions to government policies. Recently, much more radical factors have begun to influence markets. The most notable of these are bovine spongiform encephalopathy (BSE), or "mad cow disease," and foot and mouth disease. Both of these have the potential to produce major price drops of unknown duration. The possibility of this type of disaster-level risk may encourage more producers to use price risk management tools. Using options to purchase price insurance can be done at a low-cost ($0.20 to $0.30 per hundredweight), low-coverage level $4 to $8 under current market prices for just such situations.

Appendix

Web Addresses for Selected Sources of Market News and Analyses

USDA Ag. Marketing Service
http://www.ams.usda.gov/

Prices for all commodities throughout the U.S.; includes listings for individual cattle markets.

Market Reports from Kentucky Department of Agriculture
http://www.kyagr.com/mkt_promo/LPF/Livestock/programs/Auction/livestockauctions.htm

Futures Market Prices

- **Chicago Mercantile Exchange**
  http://www.cme.com

  Futures prices for slaughter and feeder cattle; also historical data and graphs.

- **Chicago Board of Trade**
  http://www.cbot.com

  Corn, soybean, and wheat futures prices.

Livestock Marketing Information Center
http://www.lmic.info

This is the best site for access to historical market data. There is a "members only" section. Because Kentucky is a member, an ID and password are available by e-mailing the author at lmeyer@uky.edu.

The market analyses of many university agricultural economists are available at this site in the "member's Web sites" section.

USDA Economic Research Service
http://www.ers.usda.gov/publications/outlook/

Access to market analyses of all agricultural products; detailed reports on special topics.

University of Kentucky, Agricultural Economics Department
http://www.uky.edu/Ag/AgEcon/

Source of Kentucky-focused economics research, market data, analysis, and decision-making tools.

USDA Packers and Stockyards
http://www.usda.gov/gipsa

Data on packers, stockyards, and market competition.

Kentucky Cattlemen's Association
http://www.kycattle.org

Information about Kentucky and useful links to other associations as well as the National Cattlemen's Beef Association.**ere**