UNIVERSITY OF KENTUCKY College of Agriculture

Using Futures Markets to Manage Price Risk for Feeder Cattle: Advanced Strategies

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Introduction:

Price volatility in feeder cattle markets has greatly increased over the last several years. While there are many reasons for the increase in price volatility, some of the more common factors include volatility in grain and fed cattle prices, variability in weather, and an increased dependence on exports. Price risk is becoming another factor that cattle producers must learn to manage, just like they would manage anything else on their operation. This volatility is also most likely behind a recent increase in producer interest in learning more about strategies to manage price risk for feeder cattle.

This publication is a follow-up to AEC 2013-01, Using Futures Markets to Manage Price Risk for Feeder Cattle. The first publication provided an introduction to the futures' market and outlined the basic use of futures and options, while this publication will discuss some advanced strategies that are commonly used by cattle producers for price risk management. These strategies will all build upon those discussed in AEC 2013-01, so a basic understanding of futures and options is required. If the reader is unfamiliar with those basic strategies, they are encouraged to master those, before moving to the advanced strategies discussed here.

As a general rule, all futures based price risk management strategies involve trade-offs. Usually, producers are giving something up, in exchange for gaining something. For example, as was discussed in AEC 2013-01, when employing a straight hedge, the producer gives up upside price gain in order to eliminate downside price risk. In the case of purchasing a put option, the producer pays some premium in order to eliminate some downside price risk. These same types of tradeoffs will apply to the strategies discussed in this publication.

Strategy #1: Combining Futures with Fixed Basis Contracts

This strategy is a simple extension of the straight hedge, but one that producers should consider as a price risk management strategy. When a livestock producer sells a futures contract, he / she essentially locks in the futures price, but does not know what the cash price for their calves will be. They may look at historical records and think that their cattle are likely to sell for a certain amount under the board, but this is only an estimate as the true basis will not be known until sale time[2]. The uncertainty of basis is the only source of price risk that remains once the futures position has been taken. A fixed basis contract provides an opportunity to eliminate basis risk.

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[2] Basis was discussed in detail in AEC 2013-01.

When one enters a fixed basis contract, rather than agreeing to a cash price, the parties agree to a set basis. For example, a backgrounder might agree in advance to sell his or her cattle to an order buyer at $10 under the November board on the day of delivery. It is important to note that with this arrangement, price risk still exists as only the basis has been fixed. If the November board moves up, the sale price will move up with it. If the November board moves down, the sale price will move down as well. The fixed basis contract simply sets the differential between the futures price and the cash price of the cattle at sale time. However, when combined with a short futures position, a fixed basis contract can provide a means to eliminate this remaining price risk as the futures position eliminates futures price risk and the fixed basis contract eliminates basis risk. It is also important to note that entering a fixed basis contract also requires the producer to deliver the cattle as agreed to in the contract. To illustrate combining a fixed basis contract with a short futures position, we will use the same scenario used in AEC 2013-01 and described in figure 1 below. This same scenario will be applied to each of the four strategies discussed in this publication.

Figure 1. Basic Summer Grazing Scenario

We will assume that it is July and a summer grazier is currently grazing a group of steers that were purchased in the spring. They plan to sell the feeder cattle in early November and the November feeder cattle futures contract is trading for $140 per cwt. They have tracked historical basis, considered market conditions, and feel like they will sell 850# steers in November for about $12 under the November board. This suggests a November price for their steers in Kentucky around $128 per cwt. The cattle are doing well and he / she feels confident that they can make an acceptable profit based on what the futures market is suggesting the likely prices will be for calves this fall.

Rather than risk the potential changes that could occur in the market between July and November, the backgrounder chooses to go ahead and protect their November price in July. The backgrounder speaks with his / her order buyer and the two agree to a fixed basis contract. The cattle will be sold on a specified date in early November at $12 under the November board. At the same time, the backgrounder sells a November feeder cattle futures contract at $140 per cwt.

Possibility #1 – prices stay about the same. If the futures market is still trading for around $140 when the feeders are sold in November, the grazier will receive $128 for the feeders per the $12 fixed basis contract. Further, since they sold a November feeder cattle futures contract in July at $140, they will offset (buy back) that contract at the same price. Effectively, they will have no gain or loss on their futures contract and be left with a net price for their calves of $128 per cwt. It is worth noting that they would still be out whatever commission had been paid back in July and would have had to maintain a margin account[3] during that time.

Possibility #2 – prices fall. If the futures market weakens between July and November, the grazier will make money on the futures contract, but sell their cattle for a lower price in November. For example, if the market moves downward from $140 to $130, the grazier would make $10 per cwt ($85 per head) on the futures contract. However, rather than selling their

[3] Margin accounts were discussed in detail in AEC 2013-01

cattle for $128, the backgrounder will sell the cattle for $118 per the basis contract (November futures price of $130 minus $12 basis). Thus, when the futures gain ($10 per cwt) is added to the selling price for the calves ($118 per cwt), the producer still nets $128 for the calves.

Possibility #3 – prices rise. If the futures market strengthens between July and November, the grazier will lose money on the futures contract, but sell their cattle for a higher price in November. For example, if the market moves upward from $140 to $150, the grazier would lose $10 per cwt ($85 per head) on the futures contract. However, rather than selling their cattle for $128, the cattle will now sell for $138 (November futures price of $150 minus $12 basis). Thus, when the futures loss ($10 per cwt) is subtracted from the selling price ($138 per cwt), the producer still nets $128 for the steers.

Table 1 below shows net price outcomes as futures prices change from selling a November futures contract at $140 and entering a fixed basis contract at $12 under the November board. Note that regardless of what the futures price ends up being, the producer still nets $128 for the cattle that are sold. In situations where market prices rise, the producer is making margin payments as the market moves upward. However, they do not get the benefit of selling the cattle for a higher price until the cattle are sold in November. So, the producer is out the interest on that money during the background period. It is also important that backgrounders be in regular communication with their lenders during the backgrounding period for this very reason. The only difference between this strategy and the straight hedge is that basis is known with certainty due to the fixed basis contract, so the net price is known with more certainty when the cattle are sold in July.

Table 1: Net Price Outcomes Under Various Futures Price Scenarios (Initially Selling Futures @ $140, Fixed Basis Contract at -$12)

Futures Price	Expected Basis	KY Price	Gain / Loss on Futures	Net Price
$160	($12)	$148	($20)	$128
$150	($12)	$138	($10)	$128
$140	($12)	$128	$0	$128
$130	($12)	$118	$10	$128
$120	($12)	$108	$20	$128

While combining a fixed basis contract with a short futures position does provide solid downside price risk protection, it was mentioned earlier that fixed basis contracts present a new challenge in that the producer now must deliver. Should forage conditions change, or should health problems lead to high death loss or slow the growth of the cattle, the producer is contractually obligated to have the cattle ready for sale in early November. Entering a fixed basis contract, much like entering a cash forward contract, brings increased production risk into the equation.

Strategy #2: A Synthetic Put

There are many terms to describe the strategy that will now be discussed, but I have chosen to call it a synthetic put. This term is often used because, from a risk management perspective, it is very similar to purchasing a put option. Much like a put option, it provides a price floor for the cattle sold and still allows the backgrounder to capitalize on rising market prices. However, to

accomplish this, a producer would sell a futures contract, and at the same time, purchase an out-of-the-money call option on that same futures contract.

A call option is the right, but not the obligation, to buy a futures contract. Therefore it relates to a long futures position. As the futures market moves higher, holding time value constant, the value of a call option increases as the purchaser of the call option has the right to purchase the futures contact at the predetermined strike price. When a call option is purchased, the purchaser is only out the premium cost of the call option and that premium cost is the most that can be lost. The synthetic put strategy combines both the selling of a futures contract and the purchase of a call option.

By selling the futures contract the producer locks in a price for their cattle in advance, subject to basis risk. In doing this, the producer essentially gives up upside price gain, in exchange for eliminating downside price risk. The producer is also subject to margin calls if the futures price rises after the short position is taken. However, if at the same time the producer purchased a call option, the value of the call option would increase as the futures market moved up, which would allow the producer to see some benefit in a rising market despite the fact that they also sold a futures contract. How far out of the money the call is, and how large the increase in price, will determine the magnitude of the gain on the call option as compared to the loss on the short futures position. This will be best understood by revisiting the scenario described in figure 1 and applying it to this strategy.

If a synthetic put is employed, the producer most likely wants downside risk protection, but also likes the idea of having some ability to benefit if prices rise between July and November. We will assume the backgrounder sells a futures contract at $140 per cwt. and at the same time, purchases a call option with a $146 strike price. This call option gives the producer the right to buy November futures at a price of $146 per cwt. Let's say for the sake of discussion that the premium for this option was $3 per cwt. The producer will pay that $3 regardless of what happens in the market. If the cattle market softens between July and November, the value of the short November position will increase and offset the fact that the cattle are worth less. If the cattle market improves between July and November, the producer will lose money on the short position, but will be able to sell their cattle on a stronger market. However, if the market increases significantly, they will also make money on the $146 call option they purchased, making them potentially better off in the stronger market.

By selling futures and purchasing the $146 call option, the producer has effectively set a net price floor of $125 per cwt. It is important to understand where this $125 price floor comes from. First, the November futures contract was sold at $140 per cwt.; as the futures market falls below this level, the producer makes money on the short futures position, which offsets the declining value of their cattle. If this happens, he / she still must consider the ($12) basis. And finally, regardless of the outcome, the producer will be out the $3 in premium ($140 - $12 - $3 = $125). Let's walk through the same possibilities as before, assuming that a November futures contract is sold at $140 per cwt and a $146 call option is purchased for $3 per cwt.

Possibility #1 – prices stay about the same. If the futures market is still trading for around $140 when the feeders are sold in November, and the -$12 basis estimate was close, the grazier

is likely to sell the steers for around $128 per cwt. No gain or loss would be incurred on the futures position other than the cost of commission. Further, since the futures market is at $140 per cwt, the $146 call option most likely has no value. However, they still spent $3 in premium so their net price for the calves will end up being $125 ($128 - $3).

Possibility #2 – prices fall. If the futures market weakens between July and November, the grazier will sell their cattle on a softer market in November, but will see the value of their short futures position increase to offset that. For example, if the market moves downward from $140 to $130, the grazier would most likely sell their cattle for $118. However, their short futures position at $140 per cwt would increase in value by $10 per cwt. Finally, their $146 call option would certainly expire worthless, although they would still be out $3 per cwt in premium cost. So, the producer would receive $118 for their cattle, make an additional $10 per cwt on their futures position, and still pay $3 in premium, leaving them with a net price of $125 per cwt for the cattle.

Possibility #3 – prices rise a small amount. If the futures market rises by a small amount between July and November, the grazier will most likely sell their cattle on a slightly stronger market, but lose money on their short futures position. Further, it is also possible that they may not be able to make money by exercising or selling back their $146 call option. For example, if the futures market moved up from $140 per cwt to $144 per cwt, the producer would most likely sell their cattle for around $132 per cwt ($144 minus $12 basis). However, they would lose $4 per cwt on their short futures position since they sold November futures at $140. And, their $146 call is most likely worthless since the market remained below the strike price. Of course, they would still be out $3 per cwt for the cost of the premium. In this case, the net price for the calves would be the price floor that was discussed earlier of $125 ($132 - $4 - $3) per cwt.

Possibility #4 – prices rise by a large amount. If the futures market strengthens significantly between July and November, the grazier could potentially net a higher price than the $125 price floor. For example, if the market moves upward from $140 to $154, the grazier is likely to sell their cattle for $142 per cwt ($154 minus $12 basis). Since they sold a November futures contract at $140, they would lose $14 per cwt on that futures position. However, since they also purchased a $146 call option, they would gain $8 per cwt on the call option, which only cost $3 per cwt in premium. In this case, the net price for the calves would be the sale price of $142, minus the $14 loss on the short futures position, plus the $8 gain on the call option, minus the $3 premium, for a net price of $133 per cwt. Notice that with a synthetic put, a price floor is in place, but producers can still benefit from a rising market.

Table 2 shows net price outcomes as futures prices change from selling a November futures contract at $140 and purchasing a call option with a $146 strike price for $3 per cwt. Note that regardless of what the price ends up being, the producer has a price floor in place of $125, but still receives a higher net price if the market rises appreciably. Basis is assumed to be $12 under, but remains an unknown factor that can impact net price. And, there is potential for margin calls from the short position that is in place, although these margin calls are somewhat limited by the purchase of the call option.

Table 2. Net Price Outcomes Under Various Futures Price Scenarios (Sell November Futures @ $140, Purchase Call Option with $146 Strike Price)

Futures Price	Expected Basis	KY Price	Gain / Loss on Futures	Premium Cost on Call	Gain on Call	Net Price
$160	($12)	$148	($20)	$3	$14	$139
$150	($12)	$138	($10)	$3	$4	$129
$140	($12)	$128	$0	$3	$0	$125
$130	($12)	$118	$10	$3	$0	$125
$120	($12)	$108	$20	$3	$0	$125

The previous discussion assumed that the backgrounder would keep the purchased call option until the cattle were delivered and sell it back if it had value. However they would actually be free to sell this call option at any time. For example, the producer could set a pricing target before hand and choose to sell the call option once that target had been reached. Without the call option in place, the short futures position still provides solid downside protection; there is just no opportunity to further benefit from rising prices.

As was stated earlier, the synthetic put works very similar to a put option; both provide a solid price floor and both allow the producer to capitalize on rising prices. However, there are two distinctions that I like to make between the two. First, the price floor set by the synthetic put will usually be higher than that set by a put option. When a put option is purchased, the producer must self-insure the difference between the current futures price and the strike price of the put. In the case of the synthetic put, an actual futures contract is sold, so gains are made on the short futures position as soon as the market moves down.

The second distinction has to do with the likelihood of the price floor becoming the net price for the cattle. In the case of the put option, the price floor is in place, but as long as the futures market does not drop below the strike price of the put, the producer will net a higher price than the floor. However, in the case of the synthetic put, the price floor set will be the net price for the calves unless the futures market moves above the strike price of the purchased call. In short, a synthetic put generally provides a higher price floor, but that price floor is more likely to be the net price of the cattle.

Strategy #3: Writing Covered Calls

Writing covered call options is a strategy that some producers utilize. It is somewhat speculative as it does not provide solid downside risk protection. I will discuss the strengths and weaknesses of this strategy, but will primarily use it to lead into discussion of strategy #4.

Strategy #2, the synthetic put, involved purchasing a call option. When a producer purchases a call option, he / she pays some premium and makes money on the purchased call as the market moves up. The most they can lose is the premium they paid. Strategy #3 involves writing (or selling) a call option. In this case, the producer collects premium but gives someone else the right to buy a futures contract at that predetermined price. When a call option is written, the most that can be gained is the premium that is collected, but there is an unlimited potential loss as the market moves upward.

Once again, we will apply strategy #3 to the basic summer grazing scenario described in figure 1. In this case, the producer feels like options are very expensive and chooses to capitalize on this by writing (selling) a call option. The backgrounder writes a call option with a $146 strike price and collects $3 per cwt in premium. If the market declines, or stays about the same, the backgrounder will keep this $3 per cwt premium to augment the price they receive for the cattle. However, if the market increases, they will start to lose money on the call option that was written, but benefit from selling the cattle on a stronger market. In this case, there really is no price floor in place. If the market drops drastically, the producer will keep the $3, but will sell their cattle on a much weaker market. The written call effectively places a ceiling on the net price they can receive. As the market rises, gains on the value of the cattle are offset by losses on the written call. We will work through scenarios as we have before assuming that a call has been written at a $146 strike price and the backgrounder collected $3 per cwt in premium.

Possibility #1 – prices stay about the same. If the futures market is still trading at around $140 when the feeders are sold in November, and the -$12 basis estimate was close, the grazier is likely to sell the steers for around $128 per cwt. If this is the case, the written call will most likely expire worthless and the producer will keep the $3 per cwt premium collected. In this case, the net price will end up being $131 per cwt ($128 cash price + $3 premium on call option written).

Possibility #2 – prices fall. If the futures market weakens considerably between July and November, the grazier will sell their cattle on a softer market in November, but will only benefit on the futures market by keeping the premium collected on the written call. For example, if the market moves downward from $140 to $130, the grazier would most likely sell their cattle for $118. They would keep the $3 per cwt premium collected, bringing their net price to $121 per cwt.

Possibility #3 – prices rise a small amount. If the futures market rises by a small amount between July and November, the grazier will most likely sell their cattle on a slightly stronger market, and keep most of the $3 per cwt premium collected on the written call. For example, if the futures market moved up from $140 per cwt to $144 per cwt, the producer would most likely sell their cattle for around $132 per cwt ($144 minus $12 basis). And, the written call is still $2 out of the money, so it will most likely expire worthless. In this case, the net price for the cattle is likely to be $135 per cwt ($132 sale price + $3 premium on written call).

Possibility #4 – prices rise by a large amount. If the futures market strengthens significantly between July and November, the grazier could potentially reach their maximum price as money lost on the written call offsets the stronger sale price on the cattle. For example, if the market moves upward from $140 to $154, the grazier is likely to sell their cattle for $142 per cwt ($154 minus $12 basis). However, since they also wrote a $146 call option, they would lose $8 per cwt on the call option. This loss would be partially offset by the $3 in premium they collected up front. In this case, the net price for the calves would be the sale price of $142, minus the $8 loss on the written call, plus the $3 collected in premium on the written call, for a net price of $137 per cwt. This $137 is effectively the net price ceiling as any increase in the market would result in both a higher sale price for the cattle and further losses on the written call.

Table 3 below shows net price outcomes as futures prices change from writing a covered November call with a $146 strike price. Note that regardless of what the price ends up being, the producer effectively has a price ceiling in place at $137 per cwt., but does not have a price floor in place. And, there is potential for margin calls from the written call as the market moves upward.

Table 3. Net Price Outcomes Under Various Futures Price Scenarios (Write November Call Option with $146 Strike Price)

Futures Price	Expected Basis	KY Price	Premium Collected on Written Call	Loss on Written Call	Net Price
$160	($12)	$148	$3	($14)	$137
$150	($12)	$138	$3	($4)	$137
$140	($12)	$128	$3	$0	$131
$130	($12)	$118	$3	$0	$121
$120	($12)	$108	$3	$0	$111

As I stated at the beginning of this section, this strategy is somewhat speculative and is not one that I recommend. However, it is one that livestock producers will occasionally employ, especially when option prices seem very high. My experience has been that producers view the risk in this strategy as the potential loss on the written call as prices move higher (ie: margin calls). However, losses on the written call are likely to be offset by stronger cattle prices in November. In my estimation, the true risk in this strategy occurs where prices decrease substantially and the only downside protection in place is the premium collected on the written call. This strategy violates one of my first goals in risk management; it fails to adequately protect the downside. However, understanding how to write call options is useful as it does set us up to discuss strategy #4.

Strategy #4: The Fence

Strategy #4 is one that I am often asked about by producers. Like the synthetic put, it has many names including windows, brackets, min-max, etc. I chose to call it the fence simply because I am applying this strategy to feeder cattle. It combines purchasing a put option with writing a call option, which effectively sets both a price floor and a price ceiling at the same time.

When a fence is placed, the purchased put option provides solid downside price protection. As the market declines, money is made on the put option to offset the fact that the cattle will be sold on a weaker market. At the same time, the written call option effectively sets a maximum on net price. As the market moves above the strike price on the written call, losses on that call offset the fact that the cattle are sold on a stronger market.

Another reason why producers often find the fence to be attractive is because net premium costs will be less than purchasing a put option alone. With the fence, premium is paid on the purchased put option and collected on the written call option. The net cost becomes the difference in the two. If the premium on the two options is similar, the net option cost may be virtually zero (excluding commission). Conversely, if the price floor set by the purchased put option is closer to the money that the price ceiling set by the written call option, the net will

likely involve some premium being paid by the producer.

Once again, we will apply strategy #4 to the basic summer grazing scenario described in figure 1. In this case the producer chooses to set a fence for the cattle to be sold in November. The backgrounder purchases a put option with a $138 strike price, which costs $4 per cwt and at the same time writes a call option with a $148 strike price and collects $2 per cwt in premium. In this case the net option cost is $4 on the purchased put option, minus $2 for the written call option, for a net option cost of $2 per cwt.

As was stated earlier, this strategy sets both a price floor and a price ceiling for the cattle. As the market moves below the strike price of the purchased put option, the producer gains on the put, which somewhat offsets the fact that the cattle are selling on the weaker market. So, the price floor is the strike price of the put option of $138, minus $12 basis, minus the net option cost of $2, for a price floor of $124 per cwt. Similarly, as the market moves above the strike price of the written call option, the producer loses money on the call which offsets the fact that the cattle are sold on a stronger market. So, the price ceiling becomes the strike price of the call option of $148, minus $12 basis, minus the net option cost of $2, for a price ceiling of $134 per cwt.

Possibility #1 – prices stay about the same. If the futures market is still trading for around $140 when the feeders are sold in November, and the -$12 basis estimate was close, the grazier is likely to sell the steers for around $128 per cwt. If this is the case, the purchased put option will likely expire worthless since the market is above its strike price. The written call will also most likely expire worthless since the market is below its strike price. The producer will still be out the $2 per cwt net premium cost. In this case, the net price will end up being $126 per cwt ($128 cash price - $2 net premium cost). Generally, as long as the futures price at sale time is above the strike price of the put option and below the strike price of the written call option, the net price will end up being the local cash price minus net premium cost.

Possibility #2 – prices fall significantly. If the futures market weakens considerably between July and November, the grazier will sell their cattle on a softer market in November, but will see some gain on the put option they purchased. For example, if the market moves downward from $140 to $130, the grazier would most likely sell their cattle for $118. However, they would make $8 per cwt on their $138 put option. They would still have a net premium cost of $2 per cwt. In this case, their net price would be the sale price of $118, plus the $8 gain on the put option, minus the $2 net option cost, for a net price of $124 per cwt.

Possibility #3 – prices rise significantly. If the futures market strengthens significantly between July and November, the grazier will sell their cattle on a stronger market, but lose a portion of this gain on the written call option. For example, if the market moves upward from $140 to $154, the grazier is likely to sell their cattle for $142 per cwt ($154 minus $12 basis). However, since they also wrote a $148 call option, they would lose $6 per cwt on the written call. And, they would still be out $2 per cwt in net option cost. In this case, the net price for the calves would be the sale price of $142, minus the $6 loss on the written call, minus $2 net option cost, for a net price of $134 per cwt.

Table 4 shows net price outcomes as futures prices change from buying a $138 November put for $4 per cwt and writing a $148 November call for $2 per cwt. Note that regardless of what the price ends up being, the producer effectively has a price ceiling in place at $134 per cwt. and a price floor in place of $124 per cwt. If basis ends up being $12 under the November board, the only room for net price variation is between the strike prices of the purchased put and written call. A few more scenarios have been added to Table 4 to illustrate this point. Producers should also be aware that the written call option is a marginable position.

Table 4. Net Price Outcomes Under Various Futures Price Scenarios (Buy November Put Option with $138 Strike Price, Write November Call Option with $148 Strike Price)

Futures Price	Expected Basis	KY Price	Net Premium Cost of Options	Gain on Purchased Put	Loss on Written Call	Net Price
$160	($12)	$148	$2	$0	($12)	$134
$150	($12)	$138	$2	$0	($2)	$134
$147	($12)	$135	$2	$0	$0	$133
$144	($12)	$132	$2	$0	$0	$130
$140	($12)	$128	$2	$0	$0	$126
$130	($12)	$118	$2	$8	$0	$124
$120	($12)	$108	$2	$18	$0	$124

The fence is a strategy that gets used fairly often by livestock producers and it is one that I generally do like. It provides solid downside price protection and the simultaneous writing of the call option decreases the cost of doing so. However, it also limits the upside price potential and puts the producer in a marginable position, which can be very frustrating for producers who employ this strategy and then find themselves in a strong bull market.

Conclusions and Implications

The purpose of this publication was to provide an understanding of four advanced strategies that can be used by livestock producers to manage the price risk that exists in today's feeder cattle markets. Producers are encouraged to familiarize themselves with the basic strategies discussed in AEC 2013-01, as well as these four strategies, in order to better understand the price risk management alternatives they could potentially utilize. All of these strategies have strengths and weaknesses and becoming familiar with them increases the likelihood that producers will choose strategies that suit their needs.

Price volatility has greatly increased in recent years and with that increased volatility has come greater risk. Regardless of what strategy producers choose to employ, the most important thing is that they consider the price risk that they face. Utilizing futures and options strategies is not about maximizing price; it's about managing price risk. Too often, individuals want to evaluate their risk management strategies in hindsight. But true price risk management is about making the best decision when faced with uncertainty. Setting pricing or profit targets, utilizing marketing strategies that are available, and taking advantage of opportunities that present themselves will be a better long-run strategy than consistently trying to guess what the market is going to do.

Additional Resources

-CME Group© - futures and options quotes, publications, resources, self study guides, etc. I especially utilized and recommend the publication, *Strategies for CME Livestock Futures and Options*.
www.cmegroup.com

-Using Futures Markets to Manage Price Risk for Feeder Cattle: AEC 2013-01 by Kenny Burdine.
http://www.ca.uky.edu/cmspubsclass/files/kburdine/Using%20Futures%20Markets%20to%20Manage%20Price%20Risk%20in%20Feeder%20Cattle.pdf

-Managing for Today's Cattle Market and Beyond: Hedging Using Livestock Futures by James D. Sartwelle and James Mintert.
http://www.lmic.info/memberspublic/pubframes.html

-Managing for Today's Cattle Market and Beyond: Commodity Options as Price Insurance for Cattlemen by John C. Mckissick.
http://www.lmic.info/memberspublic/pubframes.html