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Hedging and Basis Considerations For Fed Cattle Livestock Risk Protection Insurance

Darrell R. Mark
Extension Agricultural Economist, Livestock Marketing
Department of Agricultural Economics
Institute of Agriculture and Natural Resources
University of Nebraska-Lincoln

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Background

Livestock Risk Protection (LRP) Insurance for fed cattle is a price-risk management tool initially offered in June 2003 to fed cattle producers in Nebraska, Iowa, and Illinois. LRP indemnifies against declines in cash fed cattle sales prices, as measured by a regional weekly weighted average cash slaughter steer price. Producers can use LRP to protect against declines in their own cash sales price while still benefiting from price increases, similar to using Chicago Mercantile Exchange (CME) put options. When using CME put options or futures contracts to protect against price level changes, hedgers remain exposed to basis risk (a change in the difference between their local cash price and futures price). As a result, livestock producers using futures or options to hedge selling prices often use historical basis data to forecast basis and expected cash selling price for future livestock sales. Although the futures or option contract provides protection against decreases (and, in the case of futures contracts, increases) in price level, changes in basis result in an actual selling price higher or lower than the expected selling price.

Similar to using futures or options, cattle producers using LRP insurance to hedge sale prices are also exposed to a type of basis risk. However, the difference between producers' selling price and futures price, or *futures basis*, is not relevant when using LRP. Instead, the difference between the producers' selling price and the 5-area weekly weighted average 35 to 65 percent choice steer price (live weight basis), or *LRP basis*, is used to determine the expected selling price for future sales of cattle. The Agricultural Marketing Service (AMS), an agency of the U.S. Department of Agriculture (USDA), reports this 5-area cash slaughter cattle price daily and as a weekly average. The volume-weighted weekly average is reported on Monday mornings for trade the previous week and is available at http://www.ams.usda.gov/mnreports/lm_ct150.txt. This report contains the average slaughter cattle price across five areas: Nebraska, Kansas, Iowa/Minnesota, Colorado, and Texas/Oklahoma. Regardless of whether fed cattle insured by LRP are fed in Nebraska, Iowa, or Illinois (states where fed cattle LRP insurance is offered), the AMS-USDA reported 5-area weekly average price is used to determine LRP indemnities. The 5-area report contains price averages for both steers and heifers by quality grade. The steer price for pens or lots where 35 to 65 percent of the cattle grade choice is used for all LRP insurance contracts, regardless if the insured lot of cattle grades higher than 65 percent choice or lower than 35 percent choice or if they are heifers. The 5-area weekly weighted average 35 to 65 percent choice steer price is used for LRP insurance because it is the most representative publicly reported cash slaughter cattle price and is based on the largest volume of cattle sales.

The LRP insurance contract pays an indemnity to the producer if the Actual Ending Value (AEV), measured by the 5-area weekly weighted average 35 to 65 percent choice live steer price, on the ending date of the contract falls below the coverage price established when the producer purchased the coverage endorsement. The amount of the indemnity is the difference between the coverage price and AEV. Therefore, the changes in the relationship between a producer's selling price relative to the AEV (i.e., changes in the LRP basis) will determine whether the actual selling price is equal to the expected selling price. Consequently, forecasting LRP basis is important when hedging with LRP. This paper examines historical LRP basis and demonstrates its use in hedging with LRP.

Hedging With Futures and Options – A Review

Futures Hedging

Futures hedging is using the futures market as a temporary substitute for a cash market transaction that is expected to occur at a date in the future. Hedging with futures protects producers against the risk of price level changes; however, changes in basis can result in higher or lower net selling prices. Consider, for example, that in January a cattle feeder who plans to sell 100 head of 1,200 lb. steers in the cash market in April decides to hedge the sale by selling three CME April live cattle futures contracts at the current price of $80.00/cwt (the price of April live cattle futures in January). The producer estimates the futures basis in April for slaughter steers to be -$1.00/cwt (e.g., the April cash market will be $1.00/cwt lower than the April futures market in April). The producer's expected selling price (ESP) in April can be found by adding the futures basis to the price level established by selling the April futures contracts and subtracting the brokerage commission for trading futures contracts (here assumed to be $100/contract, or $0.25/cwt). The ESP is $80.00/cwt +(-$1.00/cwt) - $0.25/cwt, or $78.75/cwt. So, the producer expects to receive $78.75/cwt for the cattle, net of brokerage commission. This hedged price will not change as a result of price level increases or decreases but will change if basis is stronger or weaker than -$1.00/cwt.

The actual selling price (ASP) for the producer's cattle will be determined in April when the cattle are sold in the cash market and the April futures con-

tracts are offset by purchasing the futures contracts that were sold at the outset of the hedge. During the period of the hedge (January to April), the April live cattle futures prices could increase or decrease, and the April futures basis could strengthen or weaken relative to the expected -$1.00/cwt futures basis. Suppose price levels do decrease such that April live cattle futures are $75.00/cwt in April, but April futures basis is -$1.00/cwt, as expected. This situation is summarized in the table below.

Date	Cash Market	Futures Market	Basis
January	No action.	Sell 3 CME April live cattle futures contracts at $80/cwt	Expected April basis to be -$1/cwt
April	Sell 100 head of 1,200 lb. steers at $74/cwt	Buy 3 CME April live cattle futures contracts at $75/cwt	Actual April basis is -$1/cwt
	Cash price received = $74/cwt	Net on futures = $5/cwt	No change

The ASP, after accounting for the futures transactions, is determined by adding gains on the futures trade to the cash selling price and subtracting brokerage commission. In this case, the ASP is $78.75/cwt (cash price received of $74.00/cwt plus the gain on futures trade of $5.00/cwt less $0.25/cwt brokerage commission). Here, the futures hedge protected the producer against a decline in price level. Moreover, the producer's ASP is equal to the ESP because the actual April futures basis of -$1.00/cwt was exactly as forecasted in January.

The ASP will not equal the ESP if the actual April futures basis is not -$1.00/cwt. To see this, suppose again that April live cattle futures prices in April are $75.00/cwt but that basis is -$3.00/cwt ($2/cwt weaker than forecasted). In this case, the cash market selling price is lower relative to the futures market, as shown in the following table.

Date	Cash Market	Futures Market	Basis
January	No action.	Sell 3 CME April live cattle futures contracts at $80/cwt	Expected April basis to be -$1/cwt
April	Sell 100 head of 1,200 lb. steers at $72/cwt	Buy 3 CME April live cattle futures contracts at $75/cwt	Actual April basis is -$3/cwt
	Cash price received = $72/cwt	Net on futures = $5/cwt	Actual basis $2/cwt weaker than expected

In this case, where the April futures basis was weaker than expected, the ASP is $76.75/cwt (cash selling price of $72.00/cwt plus the gain on futures contract of $5.00/cwt less $0.25/cwt brokerage commission). The same decline in price level resulted in the same gain on the futures trade ($5.00/cwt); however, because the April futures basis was $2.00/cwt weaker than expected, the cash price received was $2.00/cwt less than in the previous example. Thus, the ASP is $2/cwt less than before, and $2/cwt less than the ESP. The ESP, as an expectation of gross revenue, is often used for budgeting purposes. In cases where the ASP is lower than the ESP, actual revenues are less than expected. Developing an ESP at the outset of a hedge that closely approximates the ASP is important when making budget decisions. Because the only difference between ESP and ASP in a futures hedge is determined by differences in actual futures basis relative to the expected futures basis, forecasting what the futures basis will be at the conclusion of the hedge is critical to minimizing the risk of receiving an actual sales price less than expected when the hedge was initiated. Using conservative estimates of basis will result in fewer unfavorable differences between ESP and ASP.

It is also possible for the ASP to be higher than the ESP. This occurs when actual futures basis is stronger than the expected futures basis forecast. For example, suppose that in the example above, the actual April futures basis was $1.00/cwt ($2.00/cwt higher than expected). In this case, the ASP would be $80.75/cwt (cash selling price of $76.00/cwt plus the gain on futures contract of $5.00/cwt less $0.25/cwt brokerage commission), $2.00/cwt higher than the ESP of $78.75/cwt. Another possibility in the examples above is that the price level increased between January and April. If this were to occur, the hedger would realize a loss on the futures transaction, but would realize a higher selling price in the cash market. This would not cause a difference between the ASP and ESP. However, a decrease (increase) in the actual April futures basis relative to the expected April futures basis would still result in an ASP that was lower (higher) than the ESP.

Options Hedging

Livestock producers can use options on futures contracts to create a minimum expected selling price and, unlike hedging with futures, not be prevented from realizing higher selling prices in the event price level increases at the conclusion of the hedge. To do so, producers purchase put options, which give them the right but not obligation to sell the underlying futures contract at a specified strike price at any time during the life of the option. The minimum price established with the put option is determined by subtracting the option's premium (or purchase price) from the specified strike price. To translate the minimum price into an expected minimum selling price for the livestock, the appropriate futures basis must be added and the brokerage commission deducted, as in the futures hedge. Suppose, for example, that a cattle feeder purchases three April CME live cattle put options with a $77/cwt strike price for $1.50/cwt to create a minimum selling price for the sale of 100 head of 1,200 lb. steers in April. As before, the producer's estimated futures basis in April is

-$1.00/cwt and brokerage fees are $0.25/cwt. The minimum expected sale price (MESP) is $74.25/cwt ($77.00/cwt - $1.50/cwt + -$1.00/cwt - $0.25/cwt). The ASP for the cattle in April will depend upon the price level (i.e., whether the put option is used) and the actual April futures basis. Suppose, as in the example above, that the April live cattle futures decline to $75/cwt in April and that futures basis is -$1.00/cwt (as forecasted). In this case, the put option with the strike price of $77/cwt has $2.00/cwt of intrinsic value and could be sold for $2.00/cwt. The outcome of this option hedge is shown in the table below.

Date	Cash Market	Option Market	Basis
January	No action.	Buy 3 $77/cwt CME April live cattle put options for $1.50/cwt	Expected April basis to be -$1/cwt
April	Sell 100 head of 1,200 lb. steers at $74/cwt	Sell 3 $77/cwt CME April live cattle put options for $2.00/cwt	Actual April basis is -$1/cwt
	Cash price received = $74/cwt	Net on options = $0.50/cwt	No change

The ASP is computed as before (cash price received plus net on options less brokerage fees). Here, the ASP is $74.25/cwt (= $74.00/cwt + $0.50/cwt - $0.25/cwt). The MESP was realized in this case when price levels decreased and the put options had value in April. Even with this price level decrease from $80/cwt in January to $75/cwt in April, the ASP could be lower than the MESP if actual April futures basis is weaker than the forecasted -$1.00/cwt. Suppose, for example, that the actual April futures basis is -$3.00/cwt. This effectively lowers the cash price received to $72/cwt, but the net on options and brokerage fees remains the same so that the ASP is $72.25/cwt, $2.00/cwt less than the MESP. This $2.00/cwt difference is a result of the actual April futures basis being $2.00/cwt less than forecasted.

In the case of futures price level being higher than the strike price ($77/cwt), the hedger would not offset the put option (i.e., let it expire worthless). The livestock would be sold at a higher cash market price, and only half the brokerage commission (from initially purchasing the put option) would be deducted. This would (assuming constant futures basis) result in ASP exceeding the MESP. Futures basis risk is still present, however, in that a futures basis weaker (stronger) than forecasted will decrease (increase) the ASP even when futures price level is higher than the option strike price.

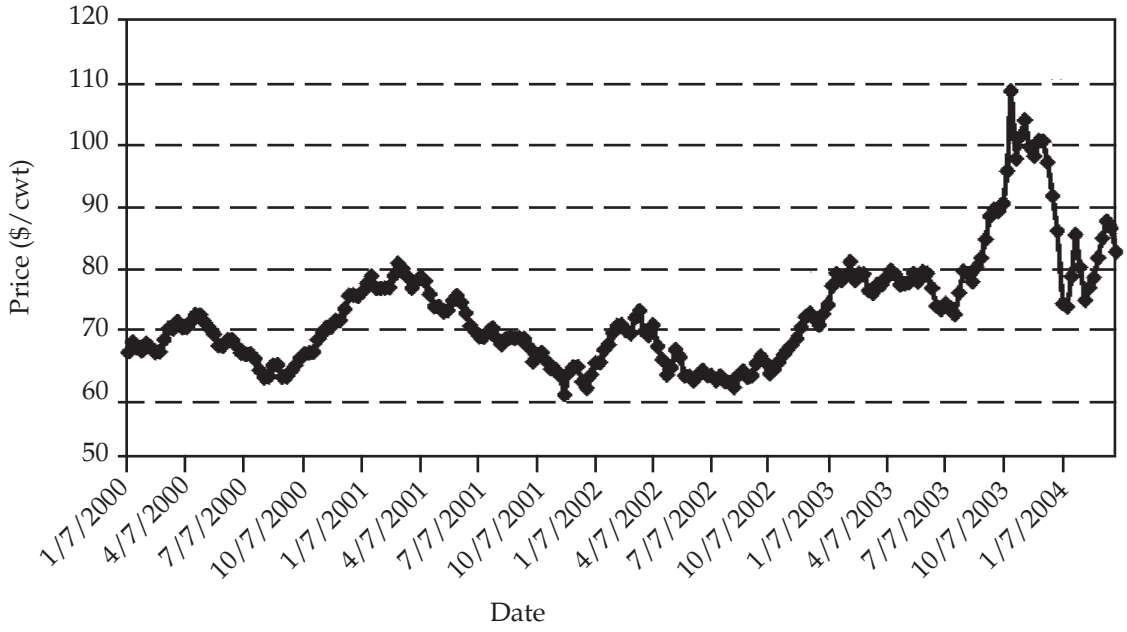
Like futures hedging, hedging with put options leaves producers exposed to futures basis risk. As we will see below, hedging with LRP insurance contracts works similarly to options hedging and there is still basis risk present. However, the futures basis risk is replaced by a different basis risk, which is discussed in the next section.

Futures Basis vs. LRP Basis

When purchasing LRP insurance, fed cattle producers select a coverage price from a range of available prices reported on the Risk Management Agency's (RMA) Coverage Price, Rates, and Actual Ending Values Report (http://www3.rma.usda.gov/apps/livestock_reports/lrp_select_date.cfm). The coverage price is based on RMA's current estimate of the 5-area slaughter cattle price on the policy's ending date. If the AEV (actual ending value) of the LRP insurance policy (as measured by the AMS-USDA 5-area Weekly Weighted Average 35 to 65 percent Choice Steer Price, hereinafter denoted "5-area price") is less than the coverage price, the LRP insurance pays an indemnity equivalent to the difference between the coverage price and AEV. Conversely, if the AEV exceeds the coverage price, no indemnity is paid. The producers' ASP (actual sale price) is determined by adding any LRP indemnity received to the cash market selling price and deducting the LRP insurance premium paid. The ASP will differ from the coverage price (less premium) by the difference between the local cash market selling price (where the cattle are sold) and the LRP's AEV (5-area price). This difference is called LRP basis. Like futures basis, LRP basis must be estimated for the time of the cash market sale (when the LRP policy ends) to determine the expected sales price for the cattle.

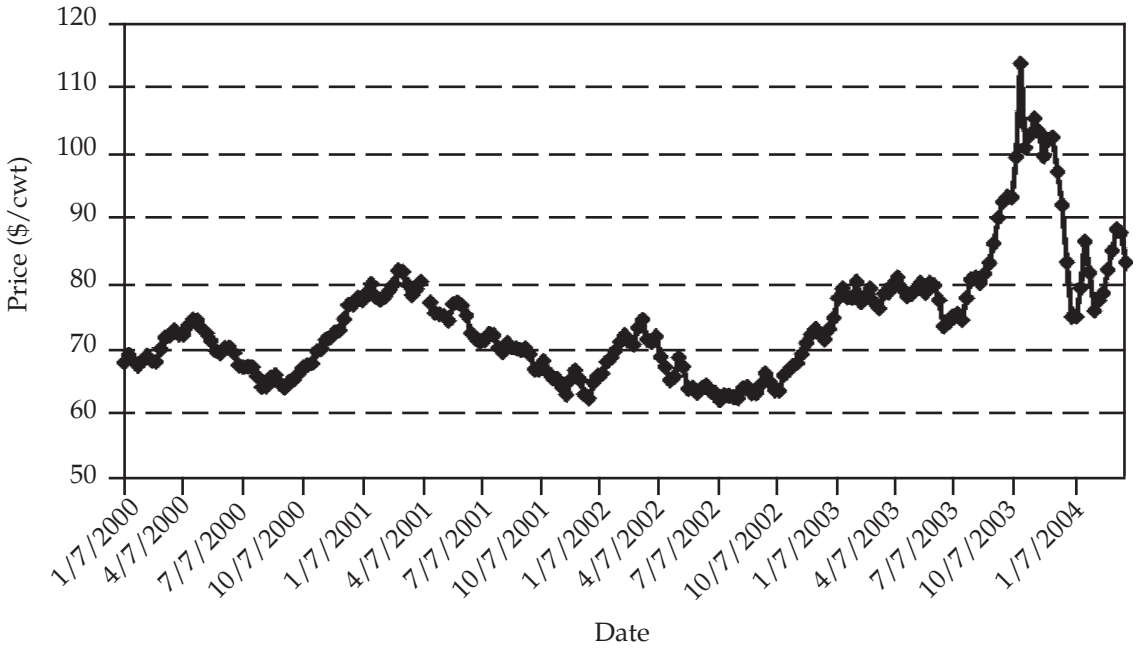
LRP basis is different than futures basis; therefore, using historical futures basis to forecast LRP basis is inappropriate. However, similar techniques can be used. Rather than examining seasonal trends in the difference between local cash price and futures price (e.g., futures basis), the difference between the local cash price and the 5-area price (e.g., LRP basis) is of interest. *Figures 1* and *2* illustrate the 5-area price and Nebraska direct steer price from 2000 to March 2004. During this time period, lowest prices (in the low $60s/cwt) occurred in the second half of 2001 and 2002 as a result of increased cattle slaughter and heavier carcass weights generating a relative increase in commercial beef production. All-time record high fed cattle prices occurred in the second half of 2003 as a result of strong domestic and international beef demand coupled with reduced domestic and international cattle supplies and substantially lower carcass weights. The prices *(Figures 1 and 2)* indicate that the Nebraska fed steer price generally tracks closely to the 5-area price. This is because the 5-area price includes in its weighted average prices for cattle sales in Nebraska. Still, there is not always a one-to-one correspondence and the Nebraska fed steer LRP basis changes.

Table 1 summarizes statistics for LRP basis and traditional futures basis for Nebraska direct steers and heifers from 2000 to March 2004. The mean LRP basis for Nebraska fed steers of $0.10/cwt indicates that, on average, the Nebraska direct steer price is $0.10/cwt higher than the 5-area price. The Nebraska fed heifer



Source: AMS-USDA

Figure 1. Weekly 5-Area Weighted Average 35-65% Choice Steer Price (Live Weight), 2000-2004.



Source: AMS-USDA

Figure 2. Nebraska Weekly Average Choice Steer Price (Live Weight), 2000-2004.

price averaged $0.19/cwt higher than the 5-area price from 2000-2004 (during this time, the Nebraska fed heifer price averaged $0.09/cwt higher than the Nebraska fed steer price). The mean steer and heifer LRP basis was $0.46/cwt higher than the traditional nearby futures basis. The range in LRP basis from 2000 to 2004 was about one-third to one-half of the range in futures basis. The coefficient of variation (CV) measures variability in the basis after accounting for different sized means. A higher CV is associated with more variability and increased difficulty in forecasting the basis for a future date. As shown in *Table 1*, the CV for Nebraska steer LRP basis is higher than for futures basis, indicating that LRP basis is more variable (less predictable) about its mean. Conversely, the CV for Nebraska heifer LRP basis is smaller than

Table 1. Nebraska Direct Steer and Heifer LRP Basis and Futures Basis Summary Statistics, 2000-March 2004.

	LRP Basis ($/cwt)	*Futures Basis ($/cwt)*	*LRP Basis ($/cwt)*	*Futures Basis ($/cwt)*
	Steers		*Heifers*	
Mean	0.10	-0.36	0.19	-0.27
Minimum	-2.99	-7.52	-1.65	-4.85
Maximum	5.32	13.24	4.17	12.09
Standard Deviation	0.97	2.46	0.83	2.28
Coefficient of Variation*	9.85	6.90	4.45	8.43

*Coefficient of variation is standard deviation divided by the absolute value of the mean. Thus, it is a unitless number.

for futures basis. Because steer LRP basis is more variable and heifer LRP basis is less variable than futures basis, accounting for the variability in forecasting LRP basis may be more difficult for steers and less difficult for heifers, relative to futures basis forecasting.

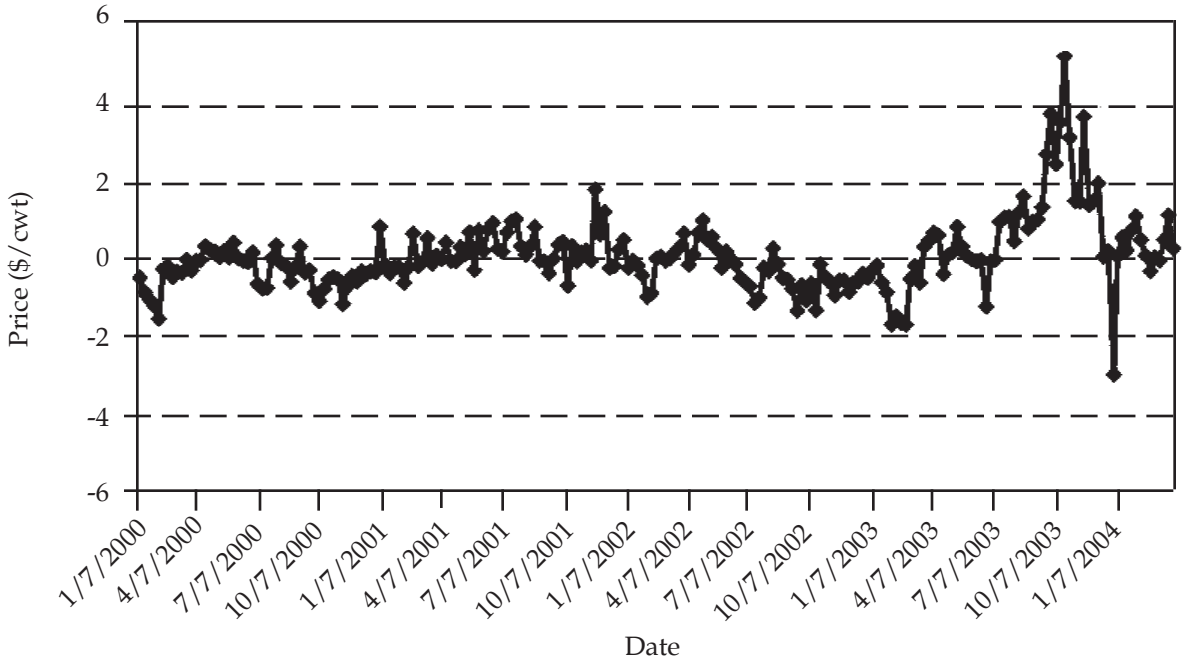
Figures 3 and *4* show the Nebraska steer and heifer LRP basis, respectively, from 2000 to March 2004. Prior to 2003, the Nebraska steer and heifer LRP basis tended to be between -$1.00/cwt and $1.00/cwt. During the second half of 2003, unusual market conditions of tight live cattle and beef supplies and significantly higher consumer demand resulted in not only record high fed cattle prices, but also substantial premiums for cattle that would grade choice (a result of very current cattle on feed inventories, lighter carcass weights, and strong demand for choice beef). Nebraska typically feeds a relatively larger share of high grading cattle and, with a lack of Choice or better cattle available, the premiums for Choice grading cattle in Nebraska (relative to the 5-area price) increased substantially, such that the Nebraska steer and heifer LRP basis peaked at more than $5/cwt and $4/cwt, respectively.

The data used in *Figures 1* to *4* are reported in *Tables 2* to *6*. These tables report data from 1992 to 2004 to provide historical background on the respective price and basis series and will provide the necessary LRP basis information to determine the expected selling price when hedging with LRP (discussed in the next section). However, the averages, minimums, and maximums reported on the tables and previously discussed are only for the years 2000 to 2003. Analysis of the historical average LRP basis data from 1997 to 2003 indicated that the previous four-year average predicted the current year basis better than five-year, three-year and two-year averages. In other words, the best historical average LRP basis to use in forecasting LRP basis for dates in 2004 is the previous four-year average (the 2000 to 2003 average). In 2005, the best predictor of LRP basis would be the 2001 to 2004 historical average. Thus, it is important to routinely track and update LRP basis, as is the case for traditional futures basis.

The slaughter steer and heifer prices used in this analysis were Nebraska direct trade prices for all quality grades. These provide a reasonable and representative price and basis for Nebraska cattle feeders hedging with LRP. However, it is still an average price. Individual producers in Nebraska should adjust these prices or basis by the premiums or discounts they receive for their cattle. In other words, if a Nebraska producer consistently sells fed steers at prices $0.15/cwt higher than the Nebraska average prices reported in *Table 3*, these prices and the basis data in *Table 5* should be increased by $0.15/cwt. This underscores the importance of producers tracking their own cash and basis data for the type (grade) of livestock they typically sell and their own specific location.

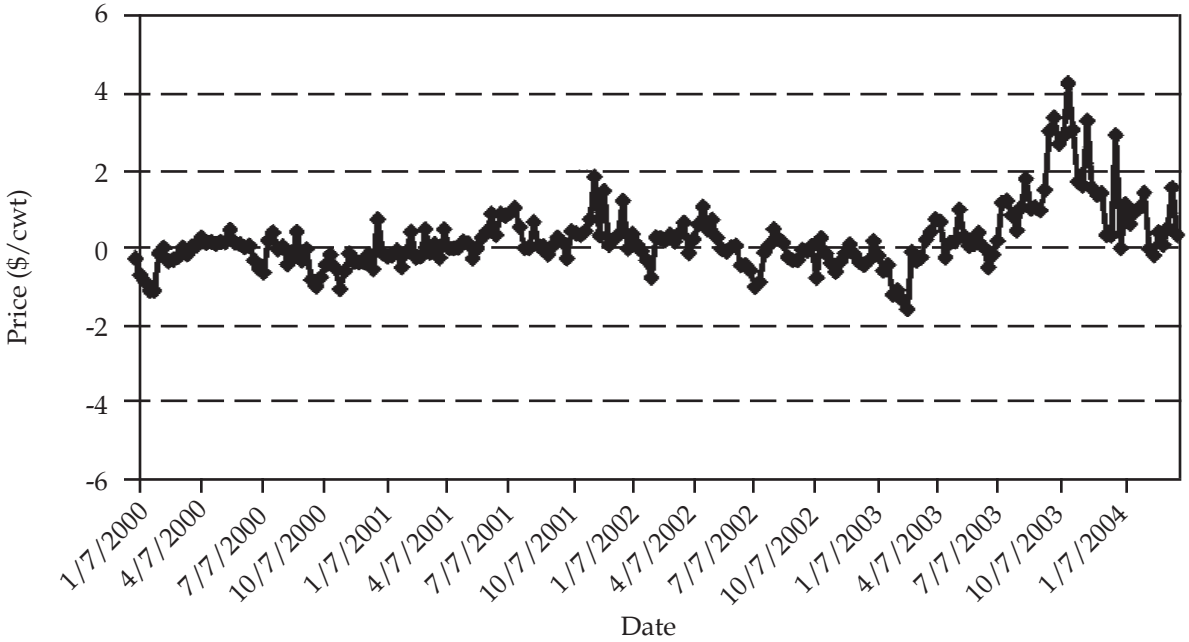
Figures 5 through *9* illustrate the seasonal trends in the 5-area price, Nebraska steer and heifer prices, and the Nebraska steer and heifer LRP basis from 2000 to 2003. *Figures 5* through *7* show that the seasonal trend for cattle prices is for seasonally high prices from November through April, with the high typically posted in April or November. Seasonally, fed cattle prices (both 5-area and Nebraska steer and heifer) tend to be lowest during the summer months and gradually recover during the fall. These seasonal trends are a result of lower commercial cattle slaughter in the spring and higher slaughter in the summer and lighter fed cattle weights in the spring and heavier weights in the summer.

The seasonal trend in Nebraska steer and heifer LRP basis, based on the 2000 to 2003 average, is for LRP basis to be negative from December through March and briefly at the end of June (*Figures 8* and *9*). The remainder of the year it is, on average, positive (e.g., the Nebraska price is higher than the 5-area price). The average LRP basis from July through December is heavily influenced by the maximum LRP basis, which occurred in 2003 (see the maximum line on *Figures 8* and *9*). Without the strong increase in LRP basis during the second half of 2003, the average LRP basis would be lower, and likely negative from September to December. Thus, to the extent that 2003 becomes an "outlier" year in terms of high price levels and high Nebraska LRP basis levels, the averages from September through December may overestimate the 2004 LRP basis to expect in the third and fourth quarter. The general pattern, however, for LRP basis to be positive in the second quarter and negative in the first and fourth quarter is likely due to harsher weather conditions in Nebraska relative to the entire 5-area market that creates additional mud on animals (which results in price discounts) during the winter months.



Source: University of Nebraska

Figure 3. Nebraska Choice Steer LRP Basis, 2000-2004. (Difference Between Nebraska Choice Steer Price and 5-Area Weekly Weighted Average 35-65% Choice Steer Price).



Source: University of Nebraska

Figure 4. Nebraska Choice Heifer LRP Basis, 2000-2004. (Difference Between Nebraska Choice Heifer Price and 5-Area Weekly Weighted Average 35-65% Choice Steer Price).

Table 2. 5-Area Weekly Weighted Average 35-65% Choice Steer Price, 1992-2004.

Date	*Week*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2000-03 Average*	*2000-03 Minimum*	*2000-03 Maximum*
1/3	1	70.08	77.93	71.86	72.24	64.95	66.02	65.94	60.02	68.16	77.43	65.89	74.84	74.71	71.58	65.89	77.43
1/10	2	72.35	78.02	73.06	72.92	64.04	64.99	63.96	60.93	69.77	78.75	65.97	77.81	74.23	73.08	65.97	78.75
1/17	3	74.47	80.18	73.84	73.40	64.73	65.89	63.96	61.98	68.87	79.96	67.96	79.74	78.97	74.13	67.96	79.96
1/24	4	74.25	81.03	72.46	74.85	64.13	65.06	64.96	61.75	68.36	78.00	68.82	78.61	85.55	73.45	68.36	78.61
1/31	5	74.88	79.63	72.34	73.92	62.87	64.04	62.98	59.91	69.53	77.96	70.61	79.38	80.42	74.37	69.53	79.38
2/7	6	76.13	78.65	71.42	73.41	62.97	63.04	61.37	62.65	68.98	78.05	71.82	81.62	75.20	75.12	68.98	81.62
2/14	7	77.91	80.71	73.22	74.84	62.99	63.82	60.27	63.86	68.12	78.11	71.93	78.61	77.21	74.19	68.12	78.61
2/21	8	77.82	82.12	74.50	73.64	62.96	65.46	61.89	62.84	68.22	79.96	70.97	79.76	78.78	74.73	68.22	79.96
2/28	9	76.48	81.09	75.84	73.78	62.99	68.67	59.38	63.01	70.12	81.93	70.54	79.64	81.90	75.56	70.12	81.93
3/7	10	76.81	80.55	75.68	73.70	61.15	68.05	60.97	64.73	71.90	81.08	73.03	76.99	84.96	75.75	71.90	81.08
3/14	11	79.02	81.38	75.53	71.35	61.50	67.83	62.95	66.02	71.82	79.82	74.15	76.64	87.67	75.61	71.82	79.82
3/21	12	78.61	82.70	74.98	69.42	63.03	67.48	63.00	65.04	72.99	77.97	70.94	77.99	86.56	74.97	70.94	77.99
3/28	13	77.84	84.61	75.31	66.80	62.35	67.05	61.81	64.03	72.01	79.00	70.20	77.99	82.82	74.80	70.20	79.00
4/4	14	78.78	83.77	76.72	69.24	62.01	67.00	61.84	64.64	72.00	79.73	71.87	79.07		75.67	71.87	79.73
4/11	15	79.71	81.58	77.06	68.12	61.91	66.24	65.94	65.89	73.07	79.06	68.46	80.20		75.20	68.46	80.20
4/18	16	78.29	82.28	74.85	65.85	58.72	69.00	65.66	65.02	74.05	76.99	66.35	79.46		74.21	66.35	79.46
4/25	17	76.41	81.72	73.88	67.75	55.61	68.02	64.00	65.05	73.98	75.05	63.93	77.87		72.71	63.93	77.87
5/2	18	77.07	81.94	71.66	66.75	58.86	67.98	65.99	65.99	72.81	75.05	65.01	78.08		72.74	65.01	78.08
5/9	19	77.08	82.61	69.83	64.21	61.63	68.91	66.01	64.98	71.94	74.18	67.89	78.26		73.07	67.89	78.26
5/16	20	77.69	82.09	68.56	63.65	60.06	67.96	65.02	64.00	70.96	74.41	66.75	79.67		72.95	66.75	79.67
5/23	21	75.54	81.01	64.70	64.08	58.95	66.89	63.99	65.01	69.09	75.93	63.82	78.35		71.80	63.82	78.35
5/30	22	74.19	78.92	67.27	63.02	59.90	65.43	63.03	65.86	69.05	76.76	63.66	79.96		72.36	63.66	79.96
6/6	23	73.66	76.92	64.21	64.89	61.27	64.40	63.95	65.99	70.00	75.70	63.00	79.65		72.09	63.00	79.65
6/13	24	74.16	78.02	64.59	64.87	62.94	62.99	64.82	66.92	70.09	73.99	63.91	77.34		71.33	63.91	77.34
6/20	25	74.08	78.77	63.33	63.88	61.07	64.07	63.97	66.88	69.05	71.99	64.63	74.48		70.04	64.63	74.48
6/27	26	72.70	76.05	60.39	63.08	60.01	63.08	62.88	65.88	67.86	71.14	63.80	73.94		69.19	63.80	73.94
7/4	27	72.85	75.87	61.07	62.95	63.27	63.04	61.99	64.03	67.73	70.26	63.74	74.90		69.16	63.74	74.90
7/11	28	72.88	75.89	65.67	62.26	64.98	61.89	60.96	63.93	67.80	70.16	62.98	74.28		68.81	62.98	74.28
7/18	29	73.83	74.28	70.54	60.99	65.02	64.00	59.95	64.09	66.97	71.08	63.70	73.17		68.73	63.70	73.17
7/25	30	73.06	72.60	67.58	61.29	63.96	63.99	59.27	64.71	65.21	71.61	62.82	76.55		69.05	62.82	76.55
8/1	31	72.17	73.80	69.44	63.81	62.85	66.03	59.00	65.06	64.02	69.91	62.67	80.00		69.15	62.67	80.00
8/8	32	73.45	75.83	70.07	63.46	65.87	64.79	59.27	64.95	64.14	68.96	61.87	79.56		68.63	61.87	79.56
8/15	33	74.70	76.64	68.32	61.77	65.97	64.89	60.00	65.08	65.94	69.91	63.81	78.30		69.49	63.81	78.30
8/22	34	74.15	74.96	65.31	60.75	67.58	65.99	58.79	65.26	65.99	70.10	64.40	80.62		70.28	64.40	80.62
8/29	35	74.73	73.81	66.18	60.07	68.95	65.01	57.16	65.64	64.06	69.94	63.48	82.02		69.88	63.48	82.02
9/5	36	73.79	73.97	67.28	63.73	69.59	64.91	56.27	65.93	64.12	69.99	63.71	84.94		70.69	63.71	84.94
9/12	37	74.66	75.29	67.19	63.96	70.62	66.87	57.86	66.01	64.98	69.88	65.68	88.52		72.27	64.98	88.52
9/19	38	75.56	74.62	66.57	63.93	71.99	66.76	59.93	66.06	65.92	68.60	66.74	89.62		72.72	65.92	89.62
9/26	39	75.65	72.74	66.88	64.80	71.97	66.00	58.98	65.03	66.99	66.17	65.80	89.34		72.08	65.80	89.34
10/3	40	75.07	71.24	65.45	62.96	72.69	65.98	57.23	66.79	67.68	67.30	64.03	90.55		72.39	64.03	90.55
10/10	41	75.44	71.68	64.98	64.36	71.01	65.01	58.89	68.24	67.87	67.63	64.67	95.61		73.95	64.67	95.61
10/17	42	75.97	69.63	65.35	65.68	70.04	65.97	62.21	70.71	67.98	66.23	65.86	108.19		77.07	65.86	108.19
10/24	43	76.75	72.59	69.22	65.85	70.01	67.98	63.02	70.34	69.95	65.06	66.92	97.51		74.86	65.06	97.51
10/31	44	75.96	74.61	69.46	67.08	70.85	69.96	63.96	69.16	70.92	64.94	67.80	101.07		76.18	64.94	101.07
11/7	45	74.93	72.93	69.90	67.82	71.96	69.02	63.18	69.26	71.91	63.93	68.57	103.62		77.01	63.93	103.62
11/14	46	74.94	72.66	69.85	68.86	72.06	67.94	62.98	69.88	71.98	60.93	69.55	99.35		75.45	60.93	99.35
11/21	47	75.54	73.89	69.77	67.98	70.17	66.99	61.03	70.90	72.97	64.41	71.31	97.92		76.65	64.41	97.92
11/28	48	76.59	72.81	67.95	67.59	67.91	67.00	61.82	70.92	73.00	65.28	72.92	100.33		77.88	65.28	100.33
12/5	49	77.57	72.18	68.22	67.11	68.09	66.84	61.93	70.09	74.75	65.35	73.53	100.27		78.48	65.35	100.27
12/12	50	77.75	71.59	69.94	66.08	66.07	66.01	60.67	69.88	76.87	62.97	72.66	96.93		77.36	62.97	96.93
12/19	51	79.08	72.27	69.90	65.61	65.01	65.01	57.93	68.69	76.96	61.93	71.65	91.66		75.55	61.93	91.66
12/26	52	78.56	73.72	69.86	65.36	65.89	64.76	58.34	67.98	76.80	64.05	73.40	86.15		75.10	64.05	86.15

Table 3. Nebraska Direct Slaughter Steer Prices, 1992-2004.

Date	*Week*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2000-03 Average*	*2000-03 Minimum*	*2000-03 Maximum*
1/3	1	68.00	77.63	70.38	68.00	64.25	66.75	65.24	59.72	67.74	77.34	65.70	74.58	74.80	71.34	65.70	77.34
1/10	2	69.75	77.94	71.13	70.50	63.75	66.25	64.08	60.01	68.97	78.43	65.97	77.67	74.80	72.76	65.97	78.43
1/17	3	71.42	80.06	71.88	70.25	64.13	65.75	63.97	61.63	67.88	79.81	67.83	79.15	79.21	73.67	67.83	79.81
1/24	4	71.25	80.13	71.38	71.75	63.81	65.50	64.22	60.86	67.22	77.84	68.44	77.76	86.31	72.81	67.22	77.84
1/31	5	72.75	79.38	71.38	71.00	61.00	65.19	62.99	60.05	68.04	77.39	69.66	77.70	81.55	73.20	68.04	77.70
2/7	6	75.38	77.94	70.25	70.75	62.25	64.25	60.98	61.02	68.78	77.89	70.97	80.15	75.71	74.45	68.78	80.15
2/14	7	77.00	80.81	71.75	72.50	62.25	64.25	59.54	61.96	68.00	78.83	71.98	76.97	77.31	73.95	68.00	78.83
2/21	8	76.75	81.38	72.25	72.25	62.00	64.38	62.47	62.22	67.81	79.83	71.07	78.07	78.47	74.20	67.81	79.83
2/28	9	76.50	81.38	73.88	71.00	62.25	66.88	59.00	62.72	69.85	81.91	70.53	79.14	81.95	75.36	69.85	81.91
3/7	10	75.83	80.50	73.31	71.50	61.50	68.00	60.99	64.43	71.61	81.68	73.09	76.83	84.93	75.80	71.61	81.68
3/14	11	77.81	81.25	73.75	70.50	60.56	67.50	62.65	65.70	71.87	79.75	74.36	76.04	88.18	75.51	71.87	79.75
3/21	12	77.42	82.50	73.19	68.75	63.25	67.63	63.09	64.65	72.75	78.11	71.28	78.33	87.71	75.12	71.28	78.33
3/28	13	77.25	85.92	73.44	67.19	62.63	67.13	61.74	64.29	72.03	79.05	70.91	78.49	83.10	75.12	70.91	79.05
4/4	14	77.33	83.50	74.69	65.75	62.13	67.75	61.49	64.33	72.04	80.21	71.76	79.78		75.95	71.76	80.21
4/11	15	78.75	81.38	75.38	68.25	62.25	66.88	65.60	64.96	73.47		68.61	80.84		74.31	68.61	80.84
4/18	16	77.56	82.50	73.13	65.75	59.38	67.88	65.94	64.97	74.36	76.98	67.07	79.09		74.38	67.07	79.09
4/25	17	76.50	82.33	72.50	65.19	56.50	67.25	64.46	65.16	74.24	75.41	64.98	77.99		73.16	64.98	77.99
5/2	18	76.67	82.25	71.63	65.75	51.69	67.63	65.58	65.76	72.92	75.22	65.55	78.28		72.99	65.55	78.28
5/9	19	77.17	82.13	68.63	63.38	59.81	68.63	65.95	64.83	72.22	74.94	68.50	79.12		73.69	68.50	79.12
5/16	20	77.67	82.25	68.75	61.50	59.88	69.00	65.13	63.88	71.06	74.18	67.06	80.01		73.08	67.06	80.01
5/23	21	76.13	81.75	64.75	63.00	57.75	68.00	64.10	64.53	69.58	76.73	63.62	78.45		72.10	63.62	78.45
5/30	22	75.50	79.25	65.50	63.75	58.50	67.75	63.14	64.59	69.13	77.02	63.89	79.97		72.50	63.89	79.97
6/6	23	74.88	76.63	63.44	63.75	59.00	65.63	63.95	65.52	70.01	76.54	63.03	79.61		72.30	63.03	79.61
6/13	24	75.63	77.81	64.25	64.50	60.88	64.50	64.03	65.98	70.07	74.98	63.80	77.33		71.55	63.80	77.33
6/20	25	75.25	78.31	63.75	64.00	61.50	65.50	63.66	66.32	69.28	72.31	64.17	73.26		69.75	64.17	73.26
6/27	26	74.13	75.75	60.44	63.38	60.25	64.38	62.35	65.07	67.27	71.38	63.22	73.89		68.94	63.22	73.89
7/4	27	73.83	74.88	61.25	63.38	60.50	64.13	61.89	63.75	67.02	71.01	63.06	74.90		69.00	63.06	74.90
7/11	28	73.04	75.00	63.19	62.81	62.38	63.50	60.70	63.12	67.11	71.19	61.87	75.27		68.86	61.87	75.27
7/18	29	73.88	73.56	67.38	61.25	63.75	64.25	59.65	63.83	67.04	72.17	62.72	74.27		69.05	62.72	74.27
7/25	30	73.63	71.50	66.06	61.50	63.50	64.50	59.25	64.18	65.63	71.99	62.62	77.67		69.48	62.62	77.67
8/1	31	72.75	72.00	65.31	63.19	62.50	65.69	59.08	64.89	63.97	70.08	62.38	80.48		69.23	62.38	80.48
8/8	32	73.38	74.63	67.25	63.38	64.88	65.88	59.02	64.63	64.01	69.34	62.18	80.79		69.08	62.18	80.79
8/15	33	74.25	75.06	65.81	61.75	65.75	64.88	59.98	64.94	65.41	70.80	63.71	79.96		69.97	63.71	79.96
8/22	34	72.50	74.00	63.75	61.38	66.75	64.50	59.14	65.33	65.83	70.10	63.94	81.43		70.33	63.94	81.43
8/29	35	73.88	73.06	64.00	59.00	66.25	64.50	57.67	65.49	64.44	69.92	62.97	83.02		70.09	62.97	83.02
9/5	36	72.81	72.81	66.00	60.75	68.00	64.25	57.22	65.72	63.83	69.67	62.96	85.99		70.61	62.96	85.99
9/12	37	73.75	74.00	65.25	61.00	68.50	65.00	57.67	65.89	64.75	69.94	64.36	89.89		72.24	64.36	89.89
9/19	38	74.25	73.31	64.63	61.88	69.75	65.38	60.02	66.31	65.09	69.02	66.09	92.37		73.14	65.09	92.37
9/26	39	74.33	71.81	65.63	62.75	68.88	65.00	59.22	65.58	65.95	66.66	64.75	93.16		72.63	64.75	93.16
10/3	40	74.25	69.63	64.75	62.19	70.00	66.13	57.81	66.21	66.96	66.65	63.42	93.05		72.52	63.42	93.05
10/10	41	74.25	70.63	64.88	61.75	69.75	65.88	59.08	68.02	67.39	68.01	63.36	99.21		74.49	63.36	99.21
10/17	42	74.00	68.50	65.00	63.75	68.25	65.63	61.96	70.44	67.57	66.22	65.75	113.51		78.26	65.75	113.51
10/24	43	75.06	71.56	67.25	63.94	69.75	66.75	63.03	70.10	69.48	65.27	66.49	100.70		75.48	65.27	100.70
10/31	44	74.83	71.33	66.25	64.94	70.63	68.50	63.49	69.28	69.80	65.21	67.21	102.60		76.20	65.21	102.60
11/7	45	74.33	70.38	66.88	66.75	71.38	66.94	62.98	69.63	71.25	63.93	67.65	105.14		76.99	63.93	105.14
11/14	46	74.08	69.94	67.88	67.00	73.13	65.75	62.43	69.69	71.59	62.80	69.02	103.09		76.62	62.80	103.09
11/21	47	75.00	71.25	67.75	67.75	72.63	65.94	61.31	70.62	72.44	65.10	70.78	99.35		76.92	65.10	99.35
11/28	48	75.88	69.69	66.63	67.25	68.25	66.00	61.40	70.67	72.73	66.56	72.08	101.86		78.31	66.56	101.86
12/5	49	76.75	70.88	65.75	66.81	70.50	65.44	61.92	70.79	74.42	65.16	72.93	102.27		78.69	65.16	102.27
12/12	50	76.50	69.56	67.00	67.00	69.00	65.50	60.26	69.91	76.61	62.83	72.09	97.00		77.13	62.83	97.00
12/19	51	77.71	70.25	66.50	66.00	66.25	65.13	57.74	68.97	76.67	62.22	71.29	91.88		75.52	62.22	91.88
12/26	52	77.31	71.75	66.75	66.00	66.50	64.25	57.20	67.74	77.70	64.59	72.93	83.16		74.59	64.59	83.16

Table 4. Nebraska Direct Slaughter Heifer Prices, 1992-2004.

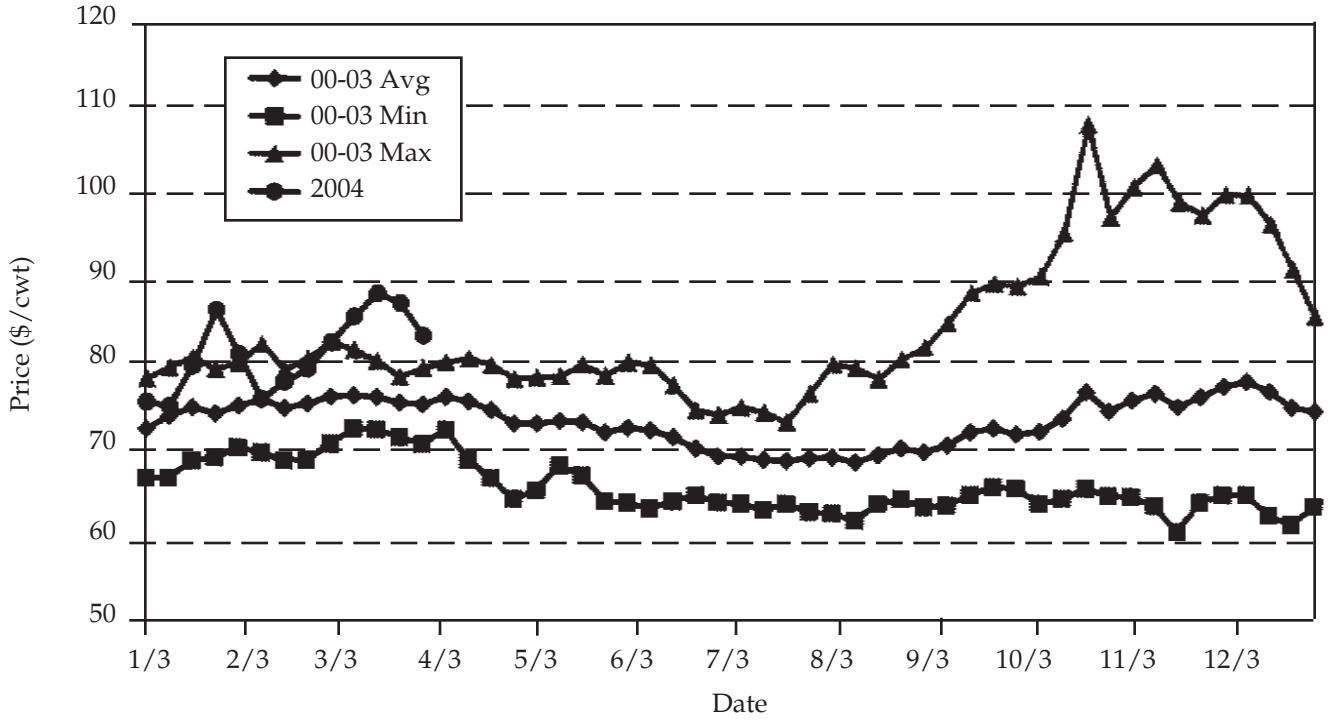
Date	*Week*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2000-03 Average*	*2000-03 Minimum*	*2000-03 Maximum*
1/3	1	68.00	77.38	70.31	68.00	64.00	67.00	64.75	59.89	67.92	77.30	65.86	74.97	74.62	71.51	65.86	77.30
1/10	2	69.50	77.63	71.06	70.50	63.75	66.63	64.22	60.00	69.11	78.54	66.31	77.56	75.28	72.88	66.31	78.54
1/17	3	71.50	79.75	71.88	70.25	64.13	65.38	63.81	61.88	68.04	79.78	68.03	79.10	79.51	73.74	68.03	79.78
1/24	4	71.13	79.88	71.13	71.75	63.69	65.25	64.60	60.95	67.29	77.95	68.71	78.12	86.40	73.02	67.29	78.12
1/31	5	72.50	79.13	71.19	71.00	61.00	64.94	63.11	60.33	68.46	77.47	70.27	78.11	81.38	73.58	68.46	78.11
2/7	6	75.19	77.56	70.00	70.75	62.17	64.00	61.32	61.64	68.88	77.95	71.03	80.47	76.54	74.58	68.88	80.47
2/14	7	77.13	80.44	71.50	72.50	62.25	64.00	59.62	62.00	68.17	78.54	72.18	77.20	77.10	74.02	68.17	78.54
2/21	8	76.50	80.94	72.00	72.25	62.00	64.25	62.76	62.40	67.91	79.72	71.20	78.11	78.50	74.24	67.91	79.72
2/28	9	76.00	81.25	73.81	70.50	62.25	66.38	59.14	63.01	69.85	81.72	70.72	79.48	82.22	75.44	69.85	81.72
3/7	10	75.44	80.50	73.31	71.50	61.25	67.75	61.24	64.57	71.70	81.57	73.35	76.60	84.95	75.81	71.70	81.57
3/14	11	77.50	81.00	73.75	70.50	60.38	67.00	62.84	65.76	71.87	79.71	74.29	76.34	88.10	75.55	71.87	79.71
3/21	12	77.33	82.00	73.19	68.75	62.88	67.25	62.92	64.84	72.86	78.09	71.29	78.15	88.03	75.10	71.29	78.15
3/28	13	74.75	85.13	73.25	67.19	62.63	66.38	61.95	64.53	72.09	78.75	70.83	78.35	83.07	75.01	70.83	78.75
4/4	14	77.29	83.00	74.75	65.63	61.75	67.50	61.46	64.48	72.10	80.21	71.71	79.76		75.94	71.71	80.21
4/11	15	78.42	81.00	75.25	68.00	61.75	66.63	65.68	65.03	73.38		68.66	80.82		74.29	68.66	80.82
4/18	16	77.06	82.00	73.13	65.63	59.00	67.38	65.88	65.03	74.22		66.93	79.15		73.43	66.93	79.15
4/25	17	76.25	81.92	72.63	65.19	56.50	67.00	64.29	65.16	74.17	75.07	64.96	77.94		73.04	64.96	77.94
5/2	18	76.42	82.00	71.63	65.50	51.50	67.50	65.39	65.58	72.95	75.22	65.46	78.20		72.96	65.46	78.20
5/9	19	76.58	82.00	68.25	63.25	59.25	68.38	66.12	64.66	72.13	74.31	68.59	79.19		73.55	68.59	79.19
5/16	20	77.00	81.88	68.44	61.00	59.38	68.75	65.01	63.70	71.14	74.14	66.99	79.91		73.04	66.99	79.91
5/23	21	76.06	81.33	64.50	62.69	57.75	67.63	64.04	64.24	69.59		63.76	78.34		70.56	63.76	78.34
5/30	22	74.69	79.13	65.50	63.25	57.75	67.50	63.15	64.75	69.22	77.03	63.53	79.99		72.44	63.53	79.99
6/6	23	73.75	76.25	63.25	63.75	58.38	65.50	63.92	65.35	70.13	76.14	62.99	79.98		72.31	62.99	79.98
6/13	24	75.42	77.69	64.00	64.38	60.63	64.00	64.01	66.00	70.14	74.87	63.93	77.31		71.56	63.93	77.31
6/20	25	75.00	78.31	63.75	63.88	61.38	65.13	63.85	66.22	69.14	72.33	64.15	73.91		69.88	64.15	73.91
6/27	26	73.88	75.67	59.81	63.00	59.75	63.88	62.20	65.05	67.57	72.02	63.32	73.70		69.15	63.32	73.70
7/4	27	73.54	74.88	61.00	63.25	60.13	64.00	61.84	63.76	67.22	71.09	63.12	75.02		69.11	63.12	75.02
7/11	28	73.56	75.00	62.88	62.81	62.13	63.38	60.53	63.23	67.19	71.07	61.93	75.38		68.89	61.93	75.38
7/18	29	73.75	73.50	67.06	61.00	63.63	64.00	59.53	63.81	67.19	72.11	62.78	74.32		69.10	62.78	74.32
7/25	30	73.31	71.00	65.88	61.25	63.31	64.50	59.15	64.13	65.64	72.15	62.66	77.33		69.44	62.66	77.33
8/1	31	72.67	71.75	65.31	63.00	62.50	65.44	59.19	64.84	64.01		62.71	80.38		69.03	62.71	80.38
8/8	32	73.13	74.38	66.94	63.38	64.75	65.00	59.09	64.56	64.21		62.32	80.54		69.02	62.32	80.54
8/15	33	74.00	75.00	65.81	61.75	65.75	64.63	59.95	64.94	65.54	70.58	64.01	80.01		70.03	64.01	80.01
8/22	34	72.88	73.75	63.75	61.25	66.25	64.88	58.99	65.22	65.87	70.14	64.49	81.56		70.52	64.49	81.56
8/29	35	73.88	72.75	63.94	58.50	65.75	63.81	57.74	65.39	64.50	69.98	63.20	83.00		70.17	63.20	83.00
9/5	36	72.75	72.63	66.00	60.75	67.50	64.00	57.15	65.62	63.82	69.82	63.35	85.84		70.71	63.35	85.84
9/12	37	73.75	74.00	65.25	61.00	68.25	64.81	57.60	66.00	64.97	69.93	65.32	89.95		72.54	64.97	89.95
9/19	38	73.96	73.31	64.56	61.69	69.25	64.88	59.97	66.48	65.11	68.86	66.65	92.56		73.30	65.11	92.56
9/26	39	74.38	71.88	65.25	62.63	68.38	64.75	59.04	65.85	66.01	66.33	65.68	92.63		72.66	65.68	92.63
10/3	40	74.19	69.31	64.75	61.94	69.63	65.75	58.05	66.34	66.94	67.02	64.04	93.16		72.79	64.04	93.16
10/10	41	74.25	70.38	64.81	61.50	69.25	65.75	59.05	68.26	67.45	68.05	63.85	98.42		74.44	63.85	98.42
10/17	42	74.00	68.38	65.00	63.00	69.38	65.50	62.04	70.33	67.83	66.60	66.07	112.36		78.21	66.07	112.36
10/24	43	74.81	71.25	66.94	63.81	69.25	66.25	63.03	70.25	69.45	65.39	66.73	100.48		75.51	65.39	100.48
10/31	44	74.63	71.31	66.25	64.94	70.38	68.13	63.70	69.09	69.87	65.36	67.36	102.70		76.32	65.36	102.70
11/7	45	74.25	70.06	66.63	66.50	71.50	66.50	63.28	69.53	71.33	64.66	67.90	105.15		77.26	64.66	105.15
11/14	46	74.00	69.69	67.75	66.75	73.38	65.75	62.17	69.56	71.85	62.75	69.15	102.55		76.58	62.75	102.55
11/21	47	74.75	71.31	67.50	67.50	74.38	65.38	61.13	70.74	72.63	64.72	71.12	99.38		76.96	64.72	99.38
11/28	48	75.75	69.75	66.25	67.00	70.25	65.63	61.45	70.64	72.64	66.74	72.97	101.62		78.49	66.74	101.62
12/5	49	76.42	70.56	65.75	66.69	71.25	65.50	62.06	70.92	74.40	65.42	73.31	101.60		78.68	65.42	101.60
12/12	50	76.25	69.75	66.88	66.88	69.00	65.50	60.78	69.99	76.72	63.16	72.25	97.18		77.33	63.16	97.18
12/19	51	77.38	70.00	66.25	66.00	66.13	64.81	57.61	69.09	76.42	62.25	71.16	91.91		75.44	62.25	91.91
12/26	52	77.00	71.63	66.50	66.00	66.50	64.00	57.30	68.04	77.55	65.25	73.03	88.98		76.20	65.25	88.98

Table 5. Nebraska Steer LRP Basis, 1992-2004.

Date	*Week*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2000-03 Average*	*2000-03 Minimum*	*2000-03 Maximum*
1/3	1	-2.08	-0.30	-1.48	-4.24	-0.70	0.73	-0.70	-0.30	-0.42	-0.09	-0.19	-0.26	0.09	-0.24	-0.42	-0.09
1/10	2	-2.60	-0.08	-1.93	-2.42	-0.29	1.26	0.12	-0.92	-0.80	-0.32	0.00	-0.14	0.57	-0.31	-0.80	0.00
1/17	3	-3.05	-0.12	-1.96	-3.15	-0.60	-0.14	0.01	-0.35	-0.99	-0.15	-0.13	-0.59	0.24	-0.46	-0.99	-0.13
1/24	4	-3.00	-0.90	-1.08	-3.10	-0.32	0.44	-0.74	-0.89	-1.14	-0.16	-0.38	-0.85	0.76	-0.63	-1.14	-0.16
1/31	5	-2.13	-0.25	-0.96	-2.92	-1.87	1.15	0.01	0.14	-1.49	-0.57	-0.95	-1.68	1.13	-1.17	-1.68	-0.57
2/7	6	-0.75	-0.71	-1.17	-2.66	-0.72	1.21	-0.39	-1.63	-0.20	-0.16	-0.85	-1.47	0.51	-0.67	-1.47	-0.16
2/14	7	-0.91	0.10	-1.47	-2.34	-0.74	0.43	-0.73	-1.90	-0.12	0.72	0.05	-1.64	0.10	-0.25	-1.64	0.72
2/21	8	-1.07	-0.74	-2.25	-1.39	-0.96	-1.08	0.58	-0.62	-0.41	-0.13	0.10	-1.69	-0.31	-0.53	-1.69	0.10
2/28	9	0.02	0.29	-1.96	-2.78	-0.74	-1.79	-0.38	-0.29	-0.27	-0.02	-0.01	-0.50	0.05	-0.20	-0.50	-0.01
3/7	10	-0.98	-0.05	-2.37	-2.20	0.35	-0.05	0.02	-0.30	-0.29	0.60	0.06	-0.16	-0.03	0.05	-0.29	0.60
3/14	11	-1.21	-0.13	-1.78	-0.85	-0.94	-0.33	-0.30	-0.32	0.05	-0.07	0.21	-0.60	0.51	-0.10	-0.60	0.21
3/21	12	-1.19	-0.20	-1.79	-0.67	0.22	0.15	0.09	-0.39	-0.24	0.14	0.34	0.34	1.15	0.15	-0.24	0.34
3/28	13	-0.59	1.31	-1.87	0.39	0.28	0.08	-0.07	0.26	0.02	0.05	0.71	0.50	0.28	0.32	0.02	0.71
4/4	14	-1.45	-0.27	-2.03	-3.49	0.12	0.75	-0.35	-0.31	0.04	0.48	-0.11	0.71		0.28	-0.11	0.71
4/11	15	-0.96	-0.20	-1.68	0.13	0.34	0.64	-0.34	-0.93	0.40		0.15	0.64		0.40	0.15	0.64
4/18	16	-0.73	0.22	-1.72	-0.10	0.66	-1.12	0.28	-0.05	0.31	-0.01	0.72	-0.37		0.16	-0.37	0.72
4/25	17	0.09	0.61	-1.38	-2.56	0.89	-0.77	0.46	0.11	0.26	0.36	1.05	0.12		0.45	0.12	1.05
5/2	18	-0.40	0.31	-0.03	-1.00	-7.17	-0.35	-0.41	-0.23	0.11	0.17	0.54	0.20		0.25	0.11	0.54
5/9	19	0.09	-0.48	-1.20	-0.83	-1.82	-0.28	-0.06	-0.15	0.28	0.76	0.61	0.86		0.63	0.28	0.86
5/16	20	-0.02	0.16	0.19	-2.15	-0.18	1.04	0.11	-0.12	0.10	-0.23	0.31	0.34		0.13	-0.23	0.34
5/23	21	0.59	0.74	0.05	-1.08	-1.20	1.11	0.11	-0.48	0.49	0.80	-0.20	0.10		0.30	-0.20	0.80
5/30	22	1.31	0.33	-1.77	0.73	-1.40	2.32	0.11	-1.27	0.08	0.26	0.23	0.01		0.15	0.01	0.26
6/6	23	1.22	-0.29	-0.77	-1.14	-2.27	1.23	0.00	-0.47	0.01	0.84	0.03	-0.04		0.21	-0.04	0.84
6/13	24	1.47	-0.21	-0.34	-0.37	-2.06	1.51	-0.79	-0.94	-0.02	0.99	-0.11	-0.01		0.21	-0.11	0.99
6/20	25	1.17	-0.46	0.42	0.12	0.43	1.43	-0.31	-0.56	0.23	0.32	-0.46	-1.22		-0.28	-1.22	0.32
6/27	26	1.43	-0.30	0.05	0.30	0.24	1.30	-0.53	-0.81	-0.59	0.24	-0.58	-0.05		-0.25	-0.59	0.24
7/4	27	0.98	-0.99	0.18	0.43	-2.77	1.09	-0.10	-0.28	-0.71	0.75	-0.68	0.00		-0.16	-0.71	0.75
7/11	28	0.16	-0.89	-2.48	0.55	-2.60	1.61	-0.26	-0.81	-0.69	1.03	-1.11	0.99		0.05	-1.11	1.03
7/18	29	0.05	-0.72	-3.16	0.26	-1.27	0.25	-0.30	-0.26	0.07	1.09	-0.98	1.10		0.32	-0.98	1.10
7/25	30	0.57	-1.10	-1.52	0.21	-0.46	0.51	-0.02	-0.53	0.42	0.38	-0.20	1.12		0.43	-0.20	1.12
8/1	31	0.58	-1.80	-4.13	-0.62	-0.35	-0.34	0.08	-0.17	-0.05	0.17	-0.29	0.48		0.08	-0.29	0.48
8/8	32	-0.07	-1.20	-2.82	-0.08	-0.99	1.09	-0.25	-0.32	-0.13	0.38	0.31	1.23		0.45	-0.13	1.23
8/15	33	-0.45	-1.58	-2.51	-0.02	-0.22	-0.01	-0.02	-0.14	-0.53	0.89	-0.10	1.66		0.48	-0.53	1.66
8/22	34	-1.65	-0.96	-1.56	0.63	-0.83	-1.49	0.35	0.07	-0.16	0.00	-0.46	0.81		0.05	-0.46	0.81
8/29	35	-0.85	-0.75	-2.18	-1.07	-2.70	-0.51	0.51	-0.15	0.38	-0.02	-0.51	1.00		0.21	-0.51	1.00
9/5	36	-0.98	-1.16	-1.28	-2.98	-1.59	-0.66	0.95	-0.21	-0.29	-0.32	-0.75	1.05		-0.08	-0.75	1.05
9/12	37	-0.91	-1.29	-1.94	-2.96	-2.12	-1.87	-0.19	-0.12	-0.23	0.06	-1.32	1.37		-0.03	-1.32	1.37
9/19	38	-1.31	-1.31	-1.94	-2.05	-2.24	-1.38	0.09	0.25	-0.83	0.42	-0.65	2.75		0.42	-0.83	2.75
9/26	39	-1.32	-0.93	-1.25	-2.05	-3.09	-1.00	0.24	0.55	-1.04	0.49	-1.05	3.82		0.55	-1.05	3.82
10/3	40	-0.82	-1.61	-0.70	-0.77	-2.69	0.15	0.58	-0.58	-0.72	-0.65	-0.61	2.50		0.13	-0.72	2.50
10/10	41	-1.19	-1.05	-0.10	-2.61	-1.26	0.87	0.19	-0.22	-0.48	0.38	-1.31	3.60		0.55	-1.31	3.60
10/17	42	-1.97	-1.13	-0.35	-1.93	-1.79	-0.34	-0.25	-0.27	-0.41	-0.01	-0.11	5.32		1.20	-0.41	5.32
10/24	43	-1.69	-1.03	-1.97	-1.91	-0.26	-1.23	0.01	-0.24	-0.47	0.21	-0.43	3.19		0.62	-0.47	3.19
10/31	44	-1.13	-3.28	-3.21	-2.14	-0.22	-1.46	-0.47	0.12	-1.12	0.27	-0.59	1.53		0.02	-1.12	1.53
11/7	45	-0.60	-2.55	-3.02	-1.07	-0.58	-2.08	-0.20	0.37	-0.66	0.00	-0.92	1.52		-0.01	-0.92	1.52
11/14	46	-0.86	-2.72	-1.97	-1.86	1.07	-2.19	-0.55	-0.19	-0.39	1.87	-0.53	3.74		1.17	-0.53	3.74
11/21	47	-0.54	-2.64	-2.02	-0.23	2.46	-1.05	0.28	-0.28	-0.53	0.69	-0.53	1.43		0.26	-0.53	1.43
11/28	48	-0.71	-3.12	-1.32	-0.34	0.34	-1.00	-0.42	-0.25	-0.27	1.28	-0.84	1.53		0.42	-0.84	1.53
12/5	49	-0.82	-1.30	-2.47	-0.30	2.41	-1.40	-0.01	0.70	-0.33	-0.19	-0.60	2.00		0.22	-0.60	2.00
12/12	50	-1.25	-2.03	-2.94	0.92	2.93	-0.51	-0.41	0.03	-0.26	-0.14	-0.57	0.07		-0.23	-0.57	0.07
12/19	51	-1.37	-2.02	-3.40	0.39	1.24	0.12	-0.19	0.28	-0.29	0.29	-0.36	0.22		-0.03	-0.36	0.29
12/26	52	-1.25	-1.97	-3.11	0.64	0.61	-0.51	-1.14	-0.24	0.90	0.54	-0.47	-2.99		-0.51	-2.99	0.90

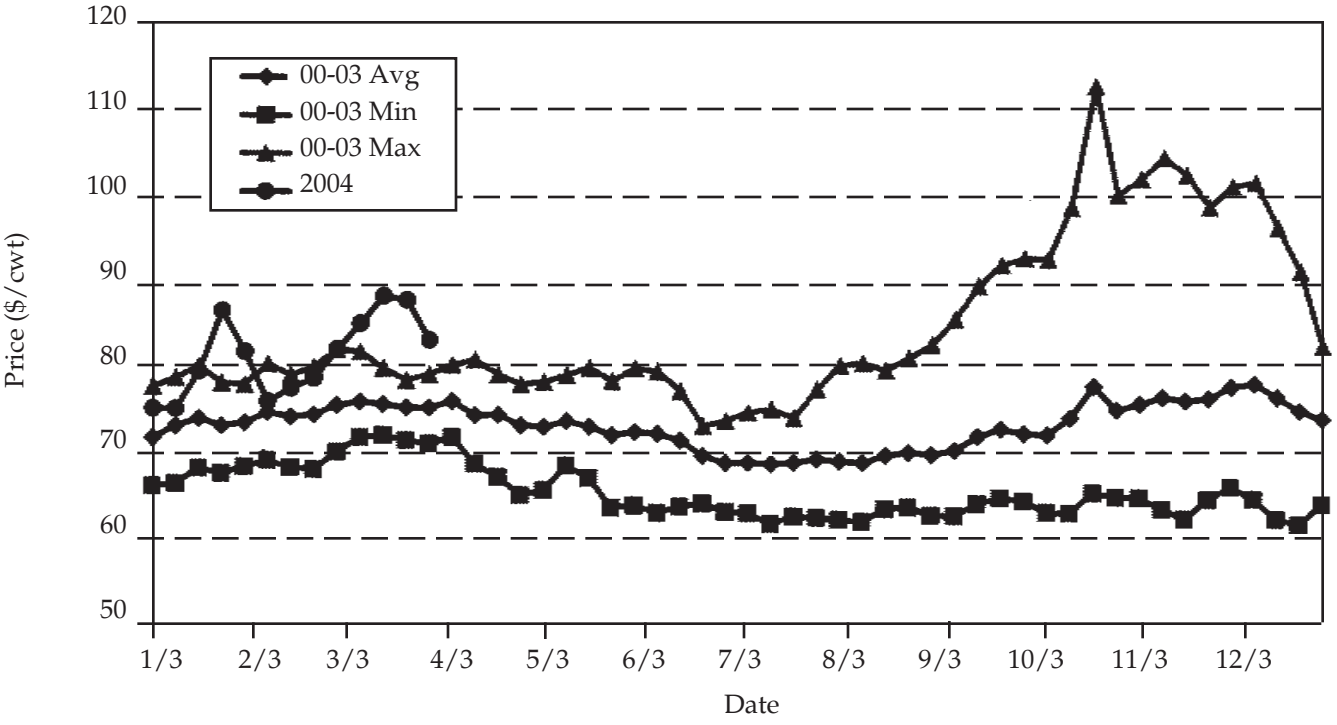
Table 6. Nebraska Heifer LRP Basis, 1992-2004.

Date	*Week*	*1992*	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2000-03 Average*	*2000-03 Minimum*	*2000-03 Maximum*
1/3	1	-2.08	-0.55	-1.55	-4.24	-0.95	0.98	-1.19	-0.13	-0.24	-0.13	-0.03	0.13	-0.09	-0.07	-0.24	0.13
1/10	2	-2.85	-0.39	-2.00	-2.42	-0.29	1.64	0.26	-0.93	-0.66	-0.21	0.34	-0.25	1.05	-0.19	-0.66	0.34
1/17	3	-2.97	-0.43	-1.96	-3.15	-0.60	-0.51	-0.15	-0.10	-0.83	-0.18	0.07	-0.64	0.54	-0.40	-0.83	0.07
1/24	4	-3.12	-1.15	-1.33	-3.10	-0.44	0.19	-0.36	-0.80	-1.07	-0.05	-0.11	-0.49	0.85	-0.43	-1.07	-0.05
1/31	5	-2.38	-0.50	-1.15	-2.92	-1.87	0.90	0.13	0.42	-1.07	-0.49	-0.34	-1.27	0.96	-0.79	-1.27	-0.34
2/7	6	-0.94	-1.09	-1.42	-2.66	-0.80	0.96	-0.05	-1.01	-0.10	-0.10	-0.79	-1.15	1.34	-0.54	-1.15	-0.10
2/14	7	-0.78	-0.27	-1.72	-2.34	-0.74	0.18	-0.65	-1.86	0.05	0.43	0.25	-1.41	-0.11	-0.17	-1.41	0.43
2/21	8	-1.32	-1.18	-2.50	-1.39	-0.96	-1.21	0.87	-0.44	-0.31	-0.24	0.23	-1.65	-0.28	-0.49	-1.65	0.23
2/28	9	-0.48	0.16	-2.03	-3.28	-0.74	-2.29	-0.24	0.00	-0.27	-0.21	0.18	-0.16	0.32	-0.12	-0.27	0.18
3/7	10	-1.37	-0.05	-2.37	-2.20	0.10	-0.30	0.27	-0.16	-0.20	0.49	0.32	-0.39	-0.01	0.05	-0.39	0.49
3/14	11	-1.52	-0.38	-1.78	-0.85	-1.12	-0.83	-0.11	-0.26	0.05	-0.11	0.14	-0.30	0.43	-0.05	-0.30	0.14
3/21	12	-1.28	-0.70	-1.79	-0.67	-0.15	-0.23	-0.08	-0.20	-0.13	0.12	0.35	0.16	1.47	0.13	-0.13	0.35
3/28	13	-3.09	0.52	-2.06	0.39	0.28	-0.67	0.14	0.50	0.08	-0.25	0.63	0.36	0.25	0.20	-0.25	0.63
4/4	14	-1.49	-0.77	-1.97	-3.61	-0.26	0.50	-0.38	-0.16	0.10	0.48	-0.16	0.69		0.28	-0.16	0.69
4/11	15	-1.29	-0.58	-1.81	-0.12	-0.16	0.39	-0.26	-0.86	0.31		0.20	0.62		0.38	0.20	0.62
4/18	16	-1.23	-0.28	-1.72	-0.22	0.28	-1.62	0.22	0.01	0.17		0.58	-0.31		0.15	-0.31	0.58
4/25	17	-0.16	0.20	-1.25	-2.56	0.89	-1.02	0.29	0.11	0.19	0.02	1.03	0.07		0.33	0.02	1.03
5/2	18	-0.65	0.06	-0.03	-1.25	-7.36	-0.48	-0.60	-0.41	0.14	0.17	0.45	0.12		0.22	0.12	0.45
5/9	19	-0.50	-0.61	-1.58	-0.96	-2.38	-0.53	0.11	-0.32	0.19	0.13	0.70	0.93		0.49	0.13	0.93
5/16	20	-0.69	-0.21	-0.12	-2.65	-0.68	0.79	-0.01	-0.30	0.18	-0.27	0.24	0.24		0.10	-0.27	0.24
5/23	21	0.52	0.32	-0.20	-1.39	-1.20	0.74	0.05	-0.77	0.50		-0.06	-0.01		0.14	-0.06	0.50
5/30	22	0.50	0.21	-1.77	0.23	-2.15	2.07	0.12	-1.11	0.17	0.27	-0.13	0.03		0.09	-0.13	0.27
6/6	23	0.09	-0.67	-0.96	-1.14	-2.89	1.10	-0.03	-0.64	0.13	0.44	-0.01	0.33		0.22	-0.01	0.44
6/13	24	1.26	-0.33	-0.59	-0.49	-2.31	1.01	-0.81	-0.92	0.05	0.88	0.02	-0.03		0.23	-0.03	0.88
6/20	25	0.92	-0.46	0.42	0.00	0.31	1.06	-0.12	-0.66	0.09	0.34	-0.48	-0.57		-0.16	-0.57	0.34
6/27	26	1.18	-0.38	-0.58	-0.08	-0.26	0.80	-0.68	-0.83	-0.29	0.88	-0.48	-0.24		-0.03	-0.48	0.88
7/4	27	0.69	-0.99	-0.07	0.30	-3.14	0.96	-0.15	-0.27	-0.51	0.83	-0.62	0.12		-0.05	-0.62	0.83
7/11	28	0.68	-0.89	-2.79	0.55	-2.85	1.49	-0.43	-0.70	-0.61	0.91	-1.05	1.10		0.09	-1.05	1.10
7/18	29	-0.08	-0.78	-3.48	0.01	-1.39	0.00	-0.42	-0.28	0.22	1.03	-0.92	1.15		0.37	-0.92	1.15
7/25	30	0.25	-1.60	-1.70	-0.04	-0.65	0.51	-0.12	-0.58	0.43	0.54	-0.16	0.78		0.40	-0.16	0.78
8/1	31	0.50	-2.05	-4.13	-0.81	-0.35	-0.59	0.19	-0.22	-0.01		0.04	0.38		0.14	-0.01	0.38
8/8	32	-0.32	-1.45	-3.13	-0.08	-1.12	0.21	-0.18	-0.39	0.07		0.45	0.98		0.50	0.07	0.98
8/15	33	-0.70	-1.64	-2.51	-0.02	-0.22	-0.26	-0.05	-0.14	-0.40	0.67	0.20	1.71		0.54	-0.40	1.71
8/22	34	-1.27	-1.21	-1.56	0.50	-1.33	-1.11	0.20	-0.04	-0.12	0.04	0.09	0.94		0.24	-0.12	0.94
8/29	35	-0.85	-1.06	-2.24	-1.57	-3.20	-1.20	0.58	-0.25	0.44	0.04	-0.28	0.98		0.30	-0.28	0.98
9/5	36	-1.04	-1.34	-1.28	-2.98	-2.09	-0.91	0.88	-0.31	-0.30	-0.17	-0.36	0.90		0.02	-0.36	0.90
9/12	37	-0.91	-1.29	-1.94	-2.96	-2.37	-2.06	-0.26	-0.01	-0.01	0.05	-0.36	1.43		0.28	-0.36	1.43
9/19	38	-1.60	-1.31	-2.01	-2.24	-2.74	-1.88	0.04	0.42	-0.81	0.26	-0.09	2.94		0.58	-0.81	2.94
9/26	39	-1.27	-0.86	-1.63	-2.17	-3.59	-1.25	0.06	0.82	-0.98	0.16	-0.12	3.29		0.59	-0.98	3.29
10/3	40	-0.88	-1.93	-0.70	-1.02	-3.06	-0.23	0.82	-0.45	-0.74	-0.28	0.01	2.61		0.40	-0.74	2.61
10/10	41	-1.19	-1.30	-0.17	-2.86	-1.76	0.74	0.16	0.02	-0.42	0.42	-0.82	2.81		0.50	-0.82	2.81
10/17	42	-1.97	-1.25	-0.35	-2.68	-0.66	-0.47	-0.17	-0.38	-0.15	0.37	0.21	4.17		1.15	-0.15	4.17
10/24	43	-1.94	-1.34	-2.28	-2.04	-0.76	-1.73	0.01	-0.09	-0.50	0.33	-0.19	2.97		0.65	-0.50	2.97
10/31	44	-1.33	-3.30	-3.21	-2.14	-0.47	-1.83	-0.26	-0.07	-1.05	0.42	-0.44	1.63		0.14	-1.05	1.63
11/7	45	-0.68	-2.87	-3.27	-1.32	-0.46	-2.52	0.10	0.27	-0.58	0.73	-0.67	1.53		0.25	-0.67	1.53
11/14	46	-0.94	-2.97	-2.10	-2.11	1.32	-2.19	-0.81	-0.32	-0.13	1.82	-0.40	3.20		1.12	-0.40	3.20
11/21	47	-0.79	-2.58	-2.27	-0.48	4.21	-1.61	0.10	-0.16	-0.34	0.31	-0.19	1.46		0.31	-0.34	1.46
11/28	48	-0.84	-3.06	-1.70	-0.59	2.34	-1.37	-0.37	-0.28	-0.36	1.46	0.05	1.29		0.61	-0.36	1.46
12/5	49	-1.15	-1.62	-2.47	-0.42	3.16	-1.34	0.13	0.83	-0.35	0.07	-0.22	1.33		0.21	-0.35	1.33
12/12	50	-1.50	-1.84	-3.06	0.80	2.93	-0.51	0.11	0.11	-0.15	0.19	-0.41	0.25		-0.03	-0.41	0.25
12/19	51	-1.70	-2.27	-3.65	0.39	1.12	-0.20	-0.32	0.40	-0.54	0.32	-0.49	0.25		-0.11	-0.54	0.32
12/26	52	-1.56	-2.09	-3.36	0.64	0.61	-0.76	-1.04	0.06	0.75	1.20	-0.37	2.83		1.10	-0.37	2.83



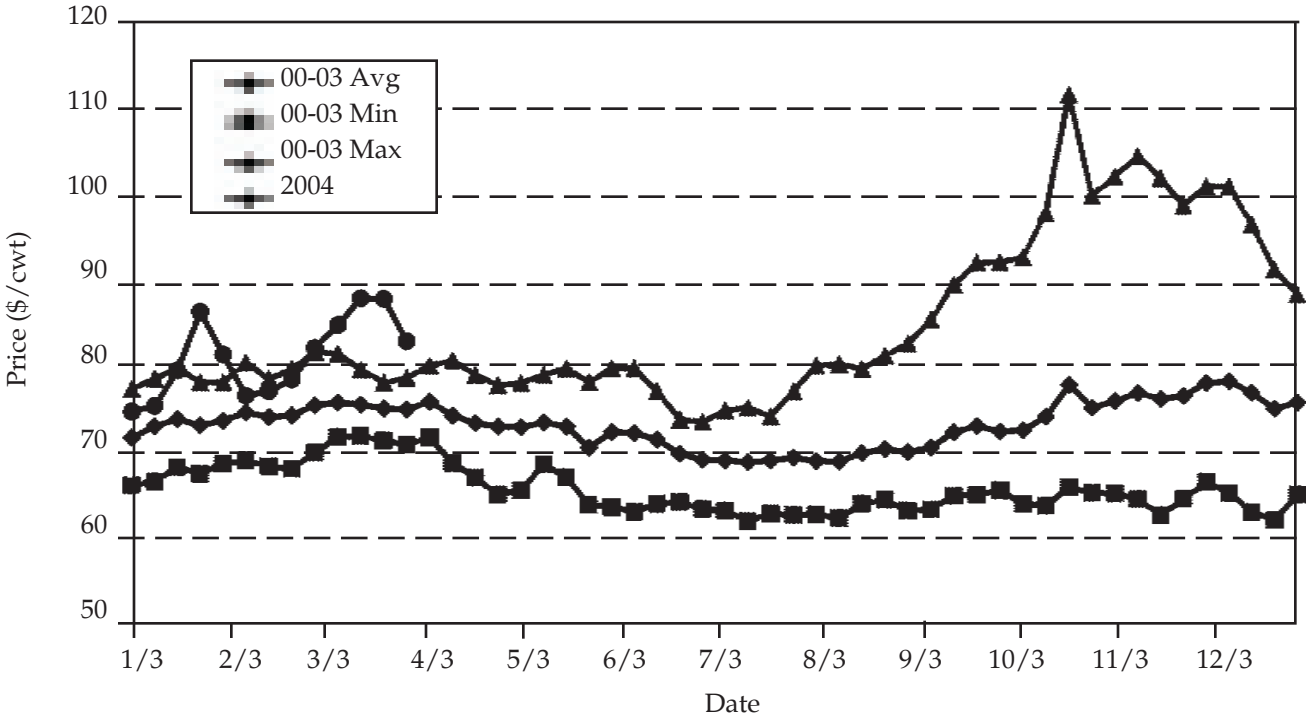
Source: University of Nebraska

Figure 5. 5-Area Weighted Average 35-65% Choice Steer Price (Live Weight), 2000-2004.



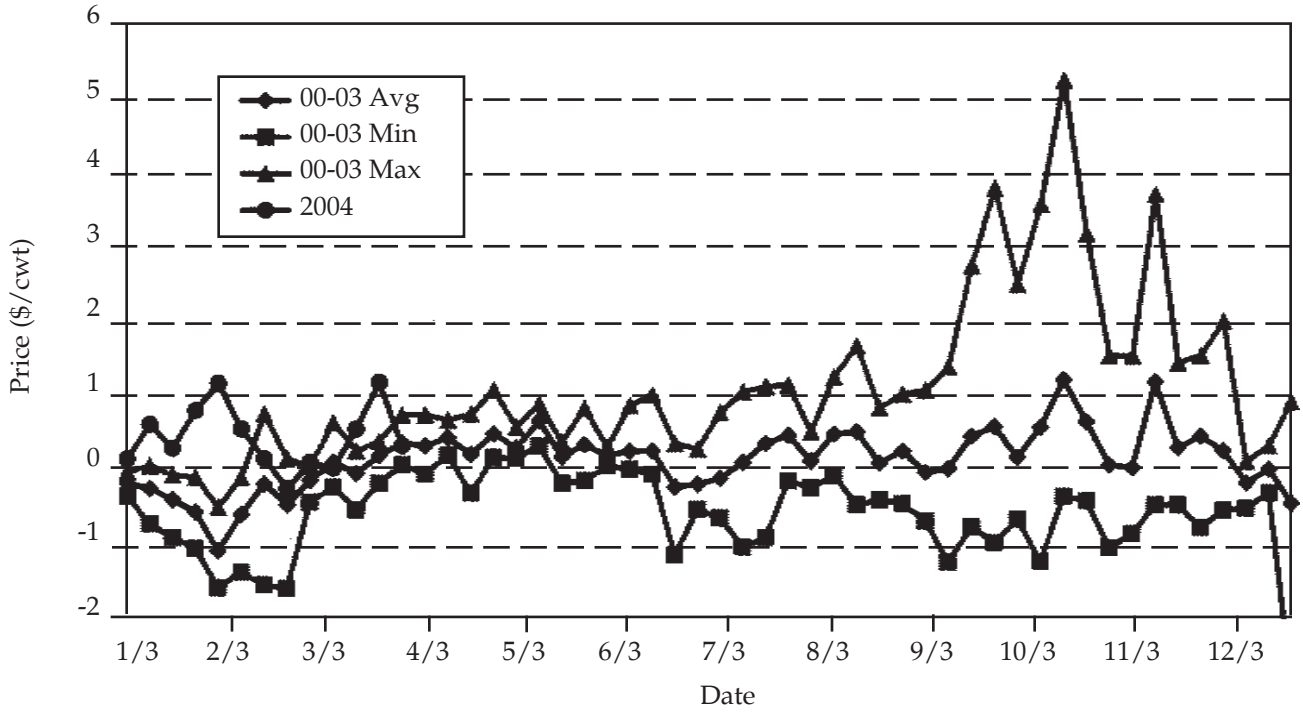
Source: University of Nebraska

Figure 6. Nebraska Direct Steer Price (Live Weight), 2000-2004.



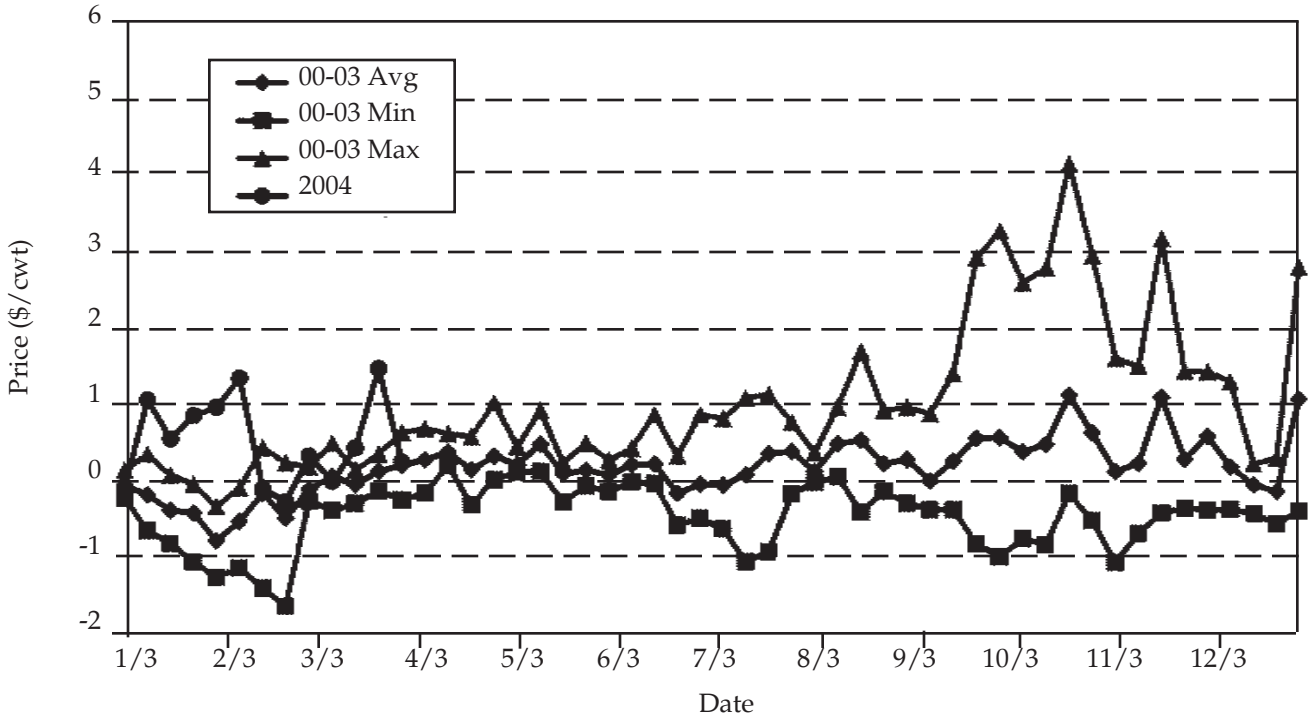
Source: University of Nebraska

Figure 7. Nebraska Direct Heifer Price (Live Weight), 2000-2004.



Source: University of Nebraska

Figure 8. Nebraska Steer LRP Basis, 2000-2004. (Difference Between Nebraska Steer Price and 5-Area Weekly Steer Price).



Source: University of Nebraska

Figure 9. Nebraska Heifer LRP Basis, 2000-2004. (Difference Between Nebraska Heifer Price and 5-Area Weekly Steer Price).

Hedging With LRP Insurance

LRP can be used to create a minimum sales price for cattle, similar to purchasing put options. However, hedging with LRP does not require trading any futures or option contracts. Further, there are no brokerage commission fees for hedgers to pay to use LRP insurance. LRP provides a substantial amount of flexibility in the number of fed cattle insured under one specific coverage endorsement (from 1 to 2,000 head) and permits users to insure up to 4,000 head per crop year (July 1 to June 30). This is in contrast to CME futures and option contracts which are based on 40,000 pounds.

To hedge a future sale of cattle with LRP insurance, an ending date for the LRP policy that corresponds to the time when the cattle are expected to be marketed is selected. Producers then choose a coverage price level from RMA-USDA's daily Coverage Price, Rate, and Actual Ending Value Table available at http://www3.rma.usda.gov/apps/livestock_reports/lrp_select_date.cfm. The coverage price is based on some percentage (from 70 to 95 percent) of the Expected Ending Value (EEV), which is an expectation of the 5-area price at the policy's ending date. To insure the coverage price, producers pay a premium equivalent to 87 percent of the premium cost stated on RMA's daily table (USDA provides a subsidy of 13 percent of the premium cost).

The LRP insurance will only pay an indemnity in the event of a price decrease such that the AEV is less than the coverage price. Therefore, it establishes a floor price, but allows the producer to benefit from price increases. The price floor, or minimum expected sale price (MESP), is determined by subtracting the premium cost from the coverage price, and adding LRP basis:

$$MESP_{LRP} = \text{Coverage Price} - \text{Premium Cost To Producer} + \text{Expected Nebraska LRP basis}$$

The LRP insurance will cover decreases in the AEV (5-area price) below the coverage price dollar-for-dollar, thus making up for decreases in the cash market price. However, if the local cash market price decreases more than the AEV (i.e., Nebraska LRP basis weakens relative to what was expected), the actual selling price (ASP) will be less than the $MESP_{LRP}$. Conversely, if the local cash market price does not decrease as much as the AEV (i.e., Nebraska LRP basis strengthens relative to expected), the ASP will be higher than the $MESP_{LRP}$.

An example can demonstrate the process of hedging with LRP. Suppose that on December 15, 2003, a cattle feeder purchased a Specific Coverage Endorsement (LRP insurance policy) for cattle he planned to market in the Nebraska direct slaughter steer market at the beginning of April 2004. On December 15, an LRP policy was available with an ending date of April 12, 2004, and a coverage price of $76.30/cwt (94 percent of the EEV of $81.30/cwt). The producer premium for this policy was $1.73/cwt (87 percent of $1.99/cwt, the total premium). The 2000 to 2003 average Nebraska steer LRP basis for the week ending April 11 (week 15 of the year) from *Table 5* can be

used as the estimated Nebraska steer LRP basis for April 12, 2004. *Table 5* reports the four-year average Nebraska steer LRP basis for the 15th week of the year is \$0.40/cwt. The $MESP_{LRP}$ would be calculated as follows:

$MESP_{LRP}$ = Coverage Price – Premium Cost To Producer + Expected Nebraska LRP basis
$MESP_{LRP}$ = \$76.30/cwt – \$1.73/cwt + \$0.40/cwt
$MESP_{LRP}$ = \$74.97/cwt

The LRP insurance policy provided protection in the event prices decreased and were lower than the coverage price on April 12, 2004. For example, assume that the AEV (5-area price) on April 12, 2004 was \$74.00/cwt and the Nebraska steer LRP basis was \$0.40/cwt (as forecasted above). This indicates that the Nebraska direct steer price was \$74.40/cwt. Further, an LRP indemnity of \$2.30/cwt would have been paid (coverage price of \$76.30 less AEV of \$74.00/cwt) because the AEV was less than the coverage price. The ASP for the cattle was determined by adding the LRP indemnity (if any) to the local cash selling price and deducting the premium:

ASP_{LRP} = Local Cash Selling Price + LRP Indemnity – Premium Cost To Producer
ASP_{LRP} = \$74.40/cwt + \$2.30/cwt – \$1.73/cwt
ASP_{LRP} = \$74.97/cwt

In this case, when the 5-area cash price decreased below the coverage price, the ASP_{LRP} equaled the $MESP_{LRP}$. Without LRP insurance, the ASP would have been the Nebraska cash market price of \$74.40/cwt. While in this example the difference was not substantial, a larger drop in price would have resulted in an ASP lower than the $MESP_{LRP}$ without the LRP insurance policy.

The LRP insurance policy would allow the producer to benefit from higher prices on April 12, 2004. For example, suppose instead that the AEV (5-area price) on April 12, 2004 was \$85.00/cwt and the Nebraska steer LRP basis was \$0.40/cwt (as forecasted above). The Nebraska direct steer price was \$85.40/cwt in this case. No LRP indemnity would be paid because the AEV exceeded the coverage price of \$76.30/cwt. The ASP for the cattle would be determined as before:

ASP_{LRP} = Local Cash Selling Price + LRP Indemnity – Premium Cost To Producer
ASP_{LRP} = \$85.40/cwt + \$0.00/cwt – \$1.73/cwt
ASP_{LRP} = \$83.67/cwt

In this case when the 5-area cash price increased above the coverage price, the ASP_{LRP} exceeded the $MESP_{LRP}$. The producer benefited from the price increase. Without LRP insurance, the ASP would have been the Nebraska cash market price of \$85.40/cwt. The difference between the ASP_{LRP} and the sale price without LRP was due to the cost of the LRP insurance (\$1.73/cwt). While in this case the producer would have been better off to not have hedged with LRP, the policy did provide protection in case of a decline in prices (the producer essentially gave up \$1.73/cwt of the increase as payment for protection from price decreases).

The Nebraska steer LRP basis can also affect whether the ASP_{LRP} realized meets the $MESP_{LRP}$ (in the event of a price decrease). Suppose, as before, the AEV (5-area price) on April 12, 2004, was \$74.00/cwt but that the Nebraska steer LRP basis was -\$1.60/cwt (\$2.00/cwt weaker than as forecasted with the 4-year average). This indicates that the Nebraska direct steer price was \$72.40/cwt. An LRP indemnity of \$2.30/cwt would have been paid as before because the AEV (\$74.00/cwt) is less than the coverage price (\$76.30/cwt). The ASP for the cattle was:

ASP_{LRP} = Local Cash Selling Price + LRP Indemnity – Premium Cost To Producer
ASP_{LRP} = \$72.40/cwt + \$2.30/cwt – \$1.73/cwt
ASP_{LRP} = \$72.97/cwt

Here, the ASP_{LRP} was \$2.00/cwt lower than the $MESP_{LRP}$. This difference was due to the weaker than expected LRP basis. In both this case and the first case, the price level decline was the same amount, so the difference between what the producer expected to receive versus what was actually received was not affected by the price decrease, but instead the unanticipated change in the relationship between the 5-area price and the Nebraska steer price (LRP basis).

A stronger than forecasted Nebraska steer LRP basis would result in an ASP_{LRP} higher than the $MESP_{LRP}$. For example, assume again that the AEV (5-area price) on April 12, 2004 was \$74.00/cwt but that the Nebraska steer LRP basis was \$2.40/cwt (\$2.00/cwt stronger than as forecasted with the 4-year average). This indicates that the Nebraska direct steer price was \$76.40/cwt. An LRP indemnity of \$2.30/cwt would have been paid as before because the AEV was less than the coverage price. The ASP for the cattle is:

ASP_{LRP} = Local Cash Selling Price + LRP Indemnity – Premium Cost To Producer
ASP_{LRP} = \$76.40/cwt + \$2.30/cwt – \$1.73/cwt
ASP_{LRP} = \$76.97/cwt

Here, the ASP_{LRP} was \$2.00/cwt higher than the $MESP_{LRP}$. This difference was due to the stronger than expected LRP basis. In both cases, the price level decline was the same amount, so the difference between what the producer expected to receive versus what was actually received was not effected by the price decrease, but instead the unanticipated change in the relationship between the 5-area price and the Nebraska steer price.

The worksheet at the end can help evaluate a hedge for fed cattle using LRP.

Conclusion

LRP offers producers the opportunity to create a minimum sale price for cattle, similar to using put options. But, just as fed cattle producers hedging with futures and options remain exposed to futures basis risk, producers using LRP insurance are not protected from changes in LRP basis. LRP basis was defined as the difference between the Nebraska direct steer (or heifer) price and the 5-Area Weekly Weighted Average 35-65 percent Choice Steer Price. Futures basis is often forecasted for hedging purposes using past years' futures basis averages. Analysis of the past seven years of LRP basis indicates that the four-year historical average Nebraska fed cattle LRP basis forecasts LRP basis better than five-, three-, and two-year averages. Historical four-year average basis was reported in tables and can be directly used in determining expected minimum sale prices established by purchasing LRP insurance.

Fed Cattle LRP Worksheet

When You Purchase/Consider Purchasing LRP

		Example	Your Case
1.	**Select End Date** • When You Plan To Sell Fed Cattle • See RMA's Daily Table*	April 12, 2004	
2.	**Select Coverage Price** • From RMA's Daily Table* • The Higher The Coverage Price, The Higher The Premium	$76.30/cwt	
3.	**Compute Premium You Pay** • 87 Percent Of Total Premium On RMA's Daily Table*	$1.73/cwt	
4.	**Forecast LRP Basis For End Date** • See Table 5, Page 12, For Fed Steers • See Table 6, Page 13, For Fed Heifers • Record 4-Year Average For Week Corresponding To End Date In #1	$0.40/cwt	
5.	**Calculate Minimum Expected Selling Price** • Line 2 – Line 3 + Line 4	$74.97/cwt	

***http://www3.rma.usda.gov/apps/livestock_reports/lrp_select_date.cfm**

When LRP Ending Date Arrives and You've Sold Cattle

		Example	Your Case
6.	**Price Received In Nebraska Cash Cattle Market**	$72.40/cwt	
7.	**Determine AEV** • From RMA's Daily Table • AMS-USDA 5-Area Weekly Weighted Average Steer Price	$74.00/cwt	
8.	**Compute Indemnity** • If Line 7 Is Less Than Line 2, Subtract Line 7 From Line 2 And Enter On Line 8 • If Line 7 Is Greater Than Line 2, Enter $0/cwt On Line 8	$2.30/cwt	
9.	**Actual Sale Price** • Line 6 + Line 8 – Line 3	$72.97/cwt	