

Department of Agricultural and Resource Economics

BASIS ESTIMATES FOR FEEDER CATTLE AND FED CATTLE

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Data Sources

USDA/Tennessee Department of Agriculture Market News Service
Livestock Marketing Information Center

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Professor Emeritus, Agricultural Economics

BASIS

The Key to Successful Forward Pricing

The term basis is used in different ways to define prices in relation to something else. It may be in relation to location or the futures price. In this discussion, basis is defined as the cash price minus the nearby futures price. If the feeder cattle futures price is \$130 per hundred and the cash price for feeder cattle is \$125 per hundred, the basis is -\$5.00 (\$125 minus \$130 = -\$5.00).

Other uses of the term basis need to be understood to avoid possible confusion. Contract basis is the fixed discount or premium that a buyer is willing to offer in setting the price for cattle to be delivered at a specific time in the future. Another use of the term might be to quote a price such as fed cattle are \$130 per hundred basis Dodge City. This simply means the quoted price is for the Dodge City areas. It has nothing to do with forward pricing, futures or options.

Why Basis Is Important

The basis or historical difference in the cash and futures price should be used to adjust or localize the futures price. The historical data is usually available from the Extension Marketing Specialist. The most accurate basis information is that which can be recorded by beef producers when their cattle are sold. Simply note what the cash price is for the cattle and what the futures price is on the same day. If a producer has some record of prices received in the past, the state Extension Marketing Specialist can usually supply the futures prices for those dates.

In hedging with a futures contract, the basis should be used to localize the futures price. This is accomplished by subtracting or adding the basis to or from the futures price. Similarly, the basis is subtracted from or added to the strike price of an option in order to know what floor or minimum selling price is being set by using the option. Once a futures position is taken in the market, the producer should follow the basis as the time of cattle sale approaches. Usually the cash and futures prices come together during the contract month, but it does not always happen. It is to the seller's advantage for the basis to become less negative or more positive at time of sale. This will allow the net price to be equal to or higher than projected, using the futures and basis estimate before initiating the hedge.

Example 1: Hedging 1 load (50,000 lbs) of 725 lbs steers in October for sale in March

March feeder cattle futures	\$ 130.00	
Estimated basis	- 1.74	(from page 18)
Expected hedged price in March	\$ 128.26	

Date	Cash		Futures		Basis
October	Expected hedged price in March	\$128.26	Sell March futures	\$130.00	-\$1.74
March	Sell cattle	\$123.26	Buy March futures	\$125.00	-\$1.74
			Futures profit	\$ 5.00	
		<u>Net price on cattle</u>			
		Sell cattle	\$123.26		
		Futures profit	+ 5.00		
		Net price	\$128.26		

Widening Basis					
Date	Cash		Futures		Basis
October	Expected hedged price in March	\$128.26	Sell March futures	\$130.00	-\$1.74
March	Sell cattle	\$120.26	Buy March futures	\$125.00	-\$4.74
			Futures profit	\$ 5.00	
		<u>Net price on cattle</u>			
		Sell cattle	\$120.26		
		Futures profit	+ 5.00		
		Net price	\$125.26		

Narrowing Basis					
Date	Cash		Futures		Basis
October	Expected hedged price in March	\$128.26	Sell March futures	\$130.00	-\$1.74
March	Sell cattle	\$125.26	Buy March futures	\$125.00	\$0.26
			Futures profit	\$ 5.00	
		<u>Net price on cattle</u>			
		Sell cattle	\$125.26		
		Futures profit	+ 5.00		
		Net price	\$130.26		

Example 2: Use of a Put Option in October to set a floor price on feeder steers that will be sold as a load in March, weighing 725 lbs

Buy March Put Option	\$ 130.00
Estimated basis	- 1.74 (from page 18)
Premium	- 2.00
Expected hedged price in April	\$ 126.26

Cattle Prices Increase

Date	Cash		Option		Basis
October	Expected hedged price in March	\$126.26	Buy March \$130 Put Option	\$2.00	-\$1.74
March	Sell cattle	\$138.26	Put Option expires worthless (March Futures \$140)		-\$1.74
			Option loss	\$ 2.00	(cost of option)
			<u>Net price on cattle</u>		
		Sell cattle	\$138.26		
		Option loss	- 2.00		
		Net price	\$136.26		

Cattle Prices Decrease

Date	Cash		Futures		Basis
October	Expected hedged price in March	\$126.26	Buy March \$130	\$2.00	-\$1.74
March	Sell cattle	\$123.26	Sell March \$130 Put Option (March Futures \$125.00)	\$5.00	-\$1.74
			Option profit	\$ 3.00	
			<u>Net price on cattle</u>		
		Sell cattle	\$123.26		
		Option profit	+ 3.00		
		Net price	\$126.26		

Use of basis to localize the option strike price provides a more accurate estimate of the floor price or protection.

Feeder Cattle Basis

It is very important for producers of feeder cattle and calves to track their own basis data. The data contained in these tables are based on Medium and Large Frame No. 1 steer and heifer averages from Tennessee Auction Markets where 80 percent or more of the cattle sell as singles. Prices for uniform loads of 50,000 pounds may sell for \$4 to \$5 per cwt more than the average of auction cattle. Historical basis have been calculated for load lots of steers and heifers using price data from selected video and graded sale locations and are presented on page 18. Also, if the producer is selling or buying mixed No. 1 and No. 2 cattle, the basis needs to be adjusted to account for the lower cash prices for the lower grading cattle. The estimates in these tables are a starting point, but the beef producer's own data is more reliable. Some record of cash prices received or paid is needed, as well as the futures prices on the day of sale. These are available from UT Extension, Department of Agricultural and Resource Economics.

Use of Basis in a Long Hedge

A long hedge involves the use of an initial buying of a feeder cattle contract or call option to protect against higher feeder cattle prices. An individual planning to buy stocker calves might do this or an individual or feedlot planning to acquire cattle in the future.

The futures price or call option strike price would need to be adjusted by the basis to know the approximate purchase price (in the case of futures) or ceiling price (in the case of options) being set.

Example 3: To lock in a purchase price in October for 400-500 lbs steers to be purchased in April

April feeder cattle futures	\$ 130.00	
Estimated basis	+ 33.75	(from page 10)
Expected hedged price in April	\$ 163.75	

If Futures Increase

Date	Cash		Futures		Basis
October	Expected hedged price	\$163.75	Buy April futures	\$130.00	+\$33.75
	in April				
April	Buy cattle	\$168.75	Sell April futures	\$135.00	+\$33.75
			Futures profit	\$ 5.00	
			<u>Actual cost of cattle</u>		
			Buy cattle	\$168.75	
			Futures	- 5.00	
			profit		
			Actual cost	\$163.75	

If Futures Decrease

Date	Cash		Futures		Basis
October	Expected hedged price	\$163.75	Buy April futures	\$130.00	+\$33.75
	in April				
April	Buy cattle	\$158.75	Sell April futures	\$125.00	+\$33.75
			Futures loss	\$ 5.00	
			<u>Actual cost of cattle</u>		
			Buy cattle	\$158.75	
			Futures	+ 5.00	
			profit		
			Actual cost	\$163.75	

Example 4: Use of a call option in October to set a ceiling price on a planned purchase of 450 lbs steers in April using a \$135 strike price and a premium cost of \$2/cwt.

Buy April \$135 Call Option	\$ 135.00
Basis	+ 33.75 (from page 10)
Premium	+ 2.00
Ceiling price	\$ 170.75

If Futures Increase

Date	Cash		Futures		Basis
October	Ceiling price	\$170.75	Buy April \$135 Call Option	\$2.00	+\$33.75
April	Buy cattle	\$173.75	Sell April \$135 Call Option (April futures \$140)	\$5.00	+\$33.75
			Option profit	\$ 3.00	
			<u>Actual cost of cattle</u>		
			Buy cattle	\$173.75	
			Futures profit	-3.00	
			Actual cost	\$170.75	

If Futures Decrease

Date	Cash		Futures		Basis
October	Ceiling price	\$170.75	Buy April \$135 Call Option	\$2.00	+\$33.75
April	Buy cattle	\$163.75	Call option expires worthless (April Futures \$130)		+\$33.75
			Option loss	\$ 2.00	(cost of option)
			<u>Actual cost of cattle</u>		
			Buy cattle	\$163.75	
			Plus call premium	+ 2.00	
			Actual cost	\$165.75	

Use of Basis in Forward Contracting

Feeder cattle basis estimates are also used in forward cash contracts with a cattle buyer to buy feeder cattle. Buyers will look at the futures price when the cattle will be delivered and adjust that price using historical basis information. They may also deduct an additional amount for costs associated with their use of the futures market, which protects them should the cattle market decline.

In the fed cattle business, most packers offer cattle feeders the opportunity to price cattle in advance of delivery using either a fixed price or basis contract. The fixed price contract is typically even with \$2 per cwt under the futures price for the particular month of delivery. The futures price is usually the same as the cattle delivery month or the month following the month of delivery. The futures price is discounted by the basis. That basis is taken from the historical basis adjusted for the particular set of cattle being contracted. A set of desirable cattle likely to grade a high percent Choice of Yield grade 1, 2 or 3 would have a smaller discount to the futures or perhaps no discount at all. A less desirable set of cattle would have a larger (more negative) basis and consequently a lower contract price. A review of historical basis would help the cattle feeder to know whether the basis being offered was reasonable. If they believed it was too wide (negative) they could hedge the cattle directly on the futures market and hope to have a smaller basis.

Basis contracts offered by packers result in a commitment for the packer to buy the cattle at a certain basis. That basis would again reflect the historical basis and that particular set of cattle (quality). The seller would then have a period of time to set the price. That price would depend on the futures price for the month specified in the contract. Again, the seller could use historical basis data to decide if the basis offered by the packer is reasonable. Some forward price contracts and basis contracts have specifications requiring that the cattle grade a certain percentage Choice with limits on the yield grade and carcass weights.

BASIS
Tennessee Feeder Cattle: M-1 Steers
400 - 500 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	107.87	121.28	117.59	109.96	112.76	109.47	105.87	110.58	106.09	99.08	94.73	88.72
2009	100.75	102.78	104.77	109.82	110.42	106.82	107.10	104.67	101.20	96.09	97.70	99.30
2010	106.78	112.93	120.15	123.81	124.59	121.31	122.46	121.20	114.11	113.25	115.13	123.79
2011	134.98	141.62	153.43	154.59	140.11	136.49	139.54	132.38	132.12	136.79	143.16	150.64
2012	168.12	186.61	186.80	181.90	180.81	166.08	140.71	149.90	151.85	149.61	154.01	155.81
2013	166.68	168.79	161.28	155.56	147.67	145.26	150.87	167.55	161.88	168.06	173.47	178.13
2014	199.73	203.81	215.52	221.95	228.85	239.29	250.47	255.24	265.16	269.26	276.97	285.57
2015	273.60	273.34	291.28	283.07	277.73	281.40	253.39	250.15	214.46	198.69	187.30	173.14
2016	182.70	189.17	193.36	170.83	160.91	147.24	141.92	150.24	128.30	117.98	122.51	129.98
2017	136.58	143.87	154.75	159.03	164.88	163.93	154.48	149.96	153.63	151.73	153.94	151.63
Tennessee Cash vs. Futures												
2008	8.40	16.33	16.44	8.80	4.08	-2.16	-6.35	-3.26	-2.57	1.12	-1.31	-1.85
2009	6.33	10.14	12.40	11.75	10.93	8.82	4.06	4.35	3.43	2.12	4.06	5.70
2010	9.70	12.85	15.84	11.30	13.92	10.48	8.61	7.67	2.75	3.63	1.28	4.32
2011	10.33	14.16	22.98	21.38	13.03	5.79	1.28	-1.48	-1.92	-2.75	-0.57	5.88
2012	17.41	30.44	32.57	32.39	28.58	10.86	0.58	9.50	7.41	4.32	8.68	4.91
2013	18.60	24.94	23.52	16.48	10.08	-0.43	-1.10	13.08	3.94	2.57	9.18	11.93
2014	30.24	34.09	40.83	43.03	41.01	33.13	34.99	37.72	36.08	29.73	39.90	60.88
2015	55.84	73.36	78.23	67.50	59.38	58.65	40.12	37.99	19.00	9.08	12.82	16.48
2016	22.12	34.04	33.48	19.56	13.64	4.63	1.17	3.97	-5.58	-5.02	-3.31	1.27
2017	6.55	20.26	25.41	22.19	19.23	14.19	5.67	6.27	4.28	-2.39	-2.15	5.72
2013-2017 Avg.	26.67	37.34	40.29	33.75	28.67	22.03	16.17	19.81	11.54	6.79	11.29	19.26

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS

Tennessee Feeder Cattle: M-1 Steers

500 - 600 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	98.08	110.45	108.97	103.62	107.62	106.62	102.36	106.11	99.35	92.38	87.69	82.39
2009	93.32	96.00	99.87	105.44	104.92	101.03	101.54	99.80	94.68	89.51	89.02	90.17
2010	98.88	105.90	112.24	116.56	116.07	114.48	115.41	113.83	107.11	105.93	108.67	113.17
2011	123.56	131.85	142.81	143.35	132.74	130.32	133.42	128.01	126.21	131.12	134.38	139.61
2012	152.87	169.96	173.78	166.61	163.12	154.26	132.38	140.34	140.11	138.47	139.17	142.68
2013	152.54	151.99	147.17	143.97	137.95	137.28	143.5	154.43	149.54	154.06	159.19	159.97
2014	181.50	186.86	199.17	201.17	211.90	224.55	230.55	232.49	241.04	242.18	246.10	252.10
2015	241.86	238.72	258.42	255.68	251.57	252.58	233.74	229.23	199.07	185.45	175.12	155.57
2016	165.86	173.00	177.72	160.44	151.79	141.07	134.33	140.46	122.00	109.69	116.15	121.35
2017	129.98	135.67	145.06	149.24	155.76	156.01	148.53	142.40	144.20	143.63	145.41	142.91
Tennessee Cash vs. Futures												
2008	-1.39	5.50	7.82	2.46	-1.06	-5.01	-9.86	-7.73	-9.31	-5.58	-8.35	-8.18
2009	-1.10	3.36	7.50	7.37	5.43	3.03	-1.50	-0.52	-3.09	-4.46	-4.62	-3.43
2010	1.80	5.82	7.93	4.05	5.40	3.65	1.56	0.30	-4.26	-3.69	-5.18	-6.30
2011	-1.09	4.39	12.36	10.14	5.66	-0.38	-4.84	-5.85	-7.83	-8.42	-9.35	-5.15
2012	2.16	13.79	19.55	17.10	10.89	-0.96	-7.75	-0.06	-4.33	-6.82	-6.16	-8.22
2013	4.46	8.14	9.41	4.89	0.36	-8.41	-8.47	-0.04	-8.40	-11.43	-5.10	-6.23
2014	12.01	17.15	24.48	22.25	24.05	18.39	15.07	14.97	11.96	2.65	9.04	27.41
2015	24.10	38.74	45.37	40.11	33.22	29.83	20.47	17.07	3.61	-4.16	0.64	-1.09
2016	5.28	17.87	17.84	9.17	4.52	-1.54	-6.42	-5.81	-11.88	-13.31	-9.67	-7.36
2017	-0.05	12.06	15.72	12.40	10.11	6.27	-0.28	-1.29	-5.15	-10.49	-10.68	-3.00
2013-2017 Avg.	9.16	18.79	22.56	17.76	14.45	8.91	4.07	4.98	-1.97	-7.35	-3.16	1.95

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS

Tennessee Feeder Cattle: M-1 Steers

600 - 700 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	90.25	100.87	96.87	96.75	102.43	102.03	100.12	103.42	96.59	86.81	82.37	78.02
2009	87.39	87.54	91.25	97.79	98.69	94.83	97.28	94.39	90.35	83.99	83.48	83.31
2010	91.11	97.52	103.22	109.50	108.97	108.39	110.17	109.30	103.50	101.14	103.11	106.61
2011	115.58	120.80	128.84	134.30	125.35	124.15	128.51	123.69	120.52	124.82	127.20	130.33
2012	140.78	153.22	156.58	148.97	150.18	144.16	125.14	131.93	132.66	129.80	131.42	132.93
2013	140.54	138.90	132.86	133.73	130.32	130.50	136.18	145.19	141.28	146.19	149.79	153.11
2014	165.86	171.00	177.84	182.47	194.39	207.39	215.44	219.81	225.47	228.96	228.84	230.31
2015	220.69	218.98	229.55	228.74	231.11	233.15	218.08	213.28	186.95	173.07	163.34	143.36
2016	152.55	157.34	159.94	147.96	142.15	135.08	129.02	135.47	117.98	105.89	110.70	116.45
2017	122.78	125.45	133.01	139.07	147.06	147.74	142.01	137.31	139.83	139.28	139.83	137.11
Tennessee Cash vs. Futures												
2008	-9.22	-4.08	-4.28	-4.41	-6.25	-9.60	-12.10	-10.42	-12.07	-11.15	-13.67	-12.55
2009	-7.03	-5.10	-1.12	-0.28	-0.80	-3.17	-5.76	-5.93	-7.42	-9.98	-10.16	-10.29
2010	-5.97	-2.56	-1.10	-3.01	-1.71	-2.44	-3.68	-4.23	-7.86	-8.49	-10.75	-12.86
2011	-9.07	-6.66	-1.61	1.09	-1.73	-6.55	-9.75	-10.17	-13.52	-14.72	-16.53	-14.43
2012	-9.93	-2.95	2.35	-0.54	-2.05	-11.06	-14.99	-8.47	-11.78	-15.49	-13.91	-17.97
2013	-7.54	-4.95	-4.90	-5.35	-7.27	-15.19	-15.79	-9.28	-16.66	-19.30	-14.50	-13.09
2014	-3.63	1.28	3.14	3.55	6.54	1.23	-0.04	2.29	-3.61	-10.57	-8.23	5.62
2015	2.93	19.00	16.50	13.17	12.76	10.40	4.81	1.12	-8.51	-16.54	-11.14	-13.30
2016	-8.03	2.21	0.06	-3.31	-5.12	-7.53	-11.73	-10.80	-15.90	-17.11	-15.12	-12.26
2017	-7.25	1.84	3.67	2.23	1.41	-2.00	-6.80	-6.38	-9.52	-14.84	-16.26	-8.80
2013-2017 Avg.	-4.70	3.88	3.69	2.06	1.66	-2.62	-5.91	-4.61	-10.84	-15.67	-13.05	-8.37

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS

Tennessee Feeder Cattle: M-1 Steers

700 - 800 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	87.03	92.85	88.45	90.68	97.80	97.58	97.68	101.14	94.11	84.16	81.28	76.30
2009	85.35	83.86	83.13	89.82	90.97	90.31	91.85	91.18	87.38	81.55	80.43	80.06
2010	87.78	94.20	96.87	106.89	107.13	103.68	105.25	105.79	96.74	100.89	104.89	107.76
2011	111.40	113.70	118.90	122.87	120.30	119.02	122.05	117.44	114.11	122.30	121.43	125.88
2012	131.52	141.58	144.06	137.01	137.86	135.25	120.26	124.96	126.71	125.44	126.84	129.00
2013	132.91	129.28	122.94	123.17	122.89	124.12	131.34	138.17	135.81	140.29	144.08	144.71
2014	159.65	160.12	167.36	170.61	178.67	193.35	203.09	208.53	218.35	222.53	219.84	218.15
2015	206.14	194.00	207.15	208.36	211.67	216.06	203.66	201.67	177.41	167.35	155.66	130.47
2016	144.21	144.93	148.12	138.02	135.51	127.22	123.64	131.73	116.69	101.78	108.15	111.13
2017	116.79	116.20	122.26	129.01	138.18	139.89	136.42	131.53	134.75	133.27	136.50	130.90
Tennessee Cash vs. Futures												
2008	-12.44	-12.10	-12.70	-10.48	-10.88	-14.05	-14.54	-12.70	-14.55	-13.80	-14.76	-14.27
2009	-9.07	-8.78	-9.24	-8.25	-8.52	-7.69	-11.19	-9.14	-10.39	-12.42	-13.21	-13.54
2010	-9.30	-5.88	-7.44	-5.62	-3.54	-7.15	-8.60	-7.75	-14.63	-8.73	-8.97	-11.71
2011	-13.25	-13.76	-11.55	-10.34	-6.78	-11.68	-16.21	-16.42	-19.93	-17.24	-22.30	-18.88
2012	-19.19	-14.59	-10.17	-12.50	-14.37	-19.97	-19.87	-15.44	-17.73	-19.85	-18.49	-21.90
2013	-15.17	-14.57	-14.82	-15.91	-14.70	-21.57	-20.63	-16.30	-22.13	-25.20	-20.21	-21.49
2014	-9.84	-9.60	-7.34	-8.31	-9.17	-12.81	-12.39	-8.99	-10.73	-17.00	-17.23	-6.54
2015	-11.62	-5.98	-5.90	-7.21	-6.68	-6.69	-9.61	-10.49	-18.05	-22.26	-18.82	-26.19
2016	-16.37	-10.20	-11.76	-13.25	-11.76	-15.39	-17.11	-14.54	-17.19	-21.22	-17.67	-17.58
2017	-13.24	-7.41	-7.08	-7.83	-7.47	-9.85	-12.39	-12.16	-14.60	-20.85	-19.59	-15.01
2013-2017 Avg.	-13.25	-9.55	-9.38	-10.50	-9.96	-13.26	-14.43	-12.50	-16.54	-21.31	-18.70	-17.36

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS
Tennessee Feeder Cattle: M-1 Heifers
400 - 500 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	93.83	106.25	101.41	97.56	101.19	98.46	96.29	97.44	94.75	85.16	78.97	74.85
2009	85.58	86.92	89.70	94.38	96.26	93.76	94.13	92.55	87.32	81.94	81.39	82.97
2010	90.51	96.92	104.59	111.23	112.66	109.83	110.18	108.86	100.09	96.83	99.68	107.88
2011	118.28	124.72	135.27	137.08	128.82	124.23	126.76	120.38	118.02	120.34	125.65	131.63
2012	146.85	163.40	164.99	159.17	161.22	149.46	127.21	135.24	132.12	131.00	133.93	134.58
2013	144.48	147.28	137.96	136.33	132.90	129.67	137.41	146.89	142.37	145.49	152.35	155.13
2014	174.23	181.78	190.31	198.91	207.53	218.27	228.08	230.22	235.60	237.42	242.95	252.83
2015	235.40	237.49	252.91	250.56	248.90	249.24	231.80	224.59	189.60	177.28	164.21	147.86
2016	156.93	163.55	167.71	152.08	146.27	133.46	127.36	133.47	114.54	99.93	105.83	111.80
2017	118.75	125.48	134.67	139.81	147.27	149.28	140.74	135.47	135.65	133.14	132.59	131.15
Tennessee Cash vs. Futures												
2008	-5.64	1.30	0.26	-3.60	-7.49	-13.17	-15.93	-16.40	-13.91	-12.80	-17.07	-15.72
2009	-8.84	-5.72	-2.67	-3.69	-3.23	-4.24	-8.92	-7.77	-10.45	-12.03	-12.25	-10.63
2010	-6.58	-3.16	0.28	-1.29	1.99	-1.01	-3.67	-4.68	-11.28	-12.79	-14.17	-11.59
2011	-6.37	-2.74	4.82	3.87	1.74	-6.47	-11.50	-13.48	-16.02	-19.20	-18.08	-13.13
2012	-3.86	7.23	10.76	9.66	8.99	-5.76	-12.92	-5.16	-12.32	-14.29	-11.40	-16.32
2013	-3.60	3.43	0.20	-2.75	-4.69	-16.02	-14.56	-7.58	-15.57	-20.00	-11.94	-11.07
2014	4.74	12.07	15.61	19.99	19.69	12.11	12.60	12.70	6.52	-2.10	5.88	28.14
2015	17.64	37.51	39.86	34.99	30.55	26.49	18.53	12.43	-5.86	-12.33	-10.27	-8.80
2016	-3.65	8.42	7.83	0.81	-1.00	-9.15	-13.39	-12.80	-19.34	-23.07	-19.99	-16.91
2017	-11.28	1.87	5.33	2.97	1.62	-0.46	-8.07	-8.22	-13.70	-20.98	-23.50	-14.76
2013-2017 Avg.	0.77	12.66	13.77	11.20	9.23	2.59	-0.98	-0.69	-9.59	-15.70	-11.96	-4.68

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS
Tennessee Feeder Cattle: M-1 Heifers
500 - 600 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	86.76	97.17	93.32	91.08	96.91	95.86	93.59	95.33	91.12	81.47	75.91	72.03
2009	81.25	81.51	83.72	89.90	92.64	90.54	91.04	89.70	84.49	77.66	76.85	77.37
2010	84.67	92.89	98.16	103.58	106.13	104.04	106.32	104.77	96.10	92.47	94.55	100.29
2011	111.39	115.35	126.20	128.33	122.22	120.53	122.20	116.50	112.82	115.67	119.14	123.77
2012	137.03	151.03	152.30	148.19	149.66	141.24	123.11	128.25	125.76	123.47	125.48	127.06
2013	135.04	134.77	128.29	127.58	125.39	124.52	131.88	139.83	135.88	138.45	141.51	144.04
2014	159.97	165.51	176.56	183.49	190.28	203.59	212.66	215.93	219.60	220.71	223.53	227.55
2015	214.55	215.55	230.35	228.68	228.58	229.07	216.42	209.97	179.45	166.64	153.30	132.44
2016	142.24	149.48	153.68	141.88	137.05	125.99	122.57	127.25	108.65	94.54	99.82	106.52
2017	113.67	117.92	125.87	130.92	138.81	141.59	134.40	129.62	129.66	127.26	127.83	125.54
Tennessee Cash vs. Futures												
2008	-12.71	-7.78	-7.83	-10.08	-11.77	-15.77	-18.63	-18.51	-17.54	-16.49	-20.13	-18.54
2009	-13.17	-11.13	-8.65	-8.17	-6.85	-7.46	-12.00	-10.62	-13.28	-16.31	-16.79	-16.22
2010	-12.41	-7.20	-6.15	-8.94	-4.54	-6.80	-7.54	-8.77	-15.27	-17.16	-19.31	-19.19
2011	-13.26	-12.11	-4.25	-4.88	-4.86	-10.17	-16.06	-17.36	-21.22	-23.87	-24.59	-20.99
2012	-13.68	-5.14	-1.93	-1.32	-2.57	-13.98	-17.02	-12.15	-18.68	-21.82	-19.85	-23.84
2013	-13.04	-9.08	-9.47	-11.50	-12.20	-21.17	-20.09	-14.64	-22.06	-27.04	-22.78	-22.16
2014	-9.52	-4.21	1.86	4.57	2.44	-2.57	-2.82	-1.59	-9.48	-18.81	-13.54	2.86
2015	-3.21	15.57	17.30	13.11	10.23	6.32	3.15	-2.19	-16.01	-22.97	-21.18	-24.22
2016	-18.34	-5.65	-6.20	-9.39	-10.22	-16.62	-18.18	-19.02	-25.23	-28.46	-26.00	-22.19
2017	-16.36	-5.69	-3.47	-5.92	-6.84	-8.15	-14.41	-14.07	-19.69	-26.86	-28.26	-20.37
2013-2017 Avg.	-12.09	-1.81	0.00	-1.83	-3.32	-8.44	-10.47	-10.30	-18.49	-24.83	-22.35	-17.22

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS
Tennessee Feeder Cattle: M-1 Heifers
600 - 700 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	81.92	88.58	85.31	84.26	91.82	91.75	90.26	92.69	88.42	78.26	73.64	69.88
2009	76.52	76.45	78.50	84.02	87.92	85.79	87.35	86.03	81.34	74.80	73.33	73.62
2010	83.52	87.15	89.95	99.28	101.17	98.35	102.10	100.38	91.82	89.06	91.39	95.08
2011	102.79	107.35	114.53	118.27	114.05	113.57	117.87	111.86	107.26	110.76	112.70	115.74
2012	125.87	137.12	137.57	132.64	134.92	130.17	115.32	120.12	119.30	117.87	119.12	121.34
2013	127.33	123.14	119.14	118.39	116.71	117.42	125.88	133.11	130.18	133.63	135.08	135.96
2014	148.97	153.10	159.87	167.36	175.15	186.71	197.97	201.87	208.92	211.90	208.17	207.49
2015	198.60	194.61	206.47	208.02	207.18	211.73	198.91	192.99	169.95	159.26	144.11	122.65
2016	131.00	136.34	138.70	130.64	128.86	120.59	116.44	122.33	104.42	90.04	96.26	102.55
2017	106.46	110.41	117.02	122.69	131.33	132.56	127.29	124.16	124.96	123.94	124.67	120.79
Tennessee Cash vs. Futures												
2008	-17.55	-16.37	-15.84	-16.90	-16.86	-19.88	-21.96	-21.15	-20.24	-19.70	-22.40	-20.69
2009	-17.90	-16.19	-13.88	-14.06	-11.57	-12.21	-15.69	-14.29	-16.44	-19.18	-20.31	-19.98
2010	-13.56	-12.93	-14.36	-13.23	-9.51	-12.48	-11.76	-13.15	-19.55	-20.56	-22.47	-24.39
2011	-21.86	-20.11	-15.92	-14.94	-13.03	-17.13	-20.39	-22.00	-26.78	-28.78	-31.03	-29.02
2012	-24.84	-19.05	-16.66	-16.87	-17.31	-25.05	-24.81	-20.28	-25.14	-27.42	-26.21	-29.56
2013	-20.75	-20.71	-18.62	-20.69	-20.88	-28.27	-26.09	-21.36	-27.76	-31.86	-29.21	-30.24
2014	-20.52	-16.62	-14.82	-11.56	-12.69	-19.45	-17.51	-15.65	-20.16	-27.62	-28.89	-17.20
2015	-19.16	-5.37	-6.58	-7.55	-11.17	-11.02	-14.36	-19.17	-25.51	-30.35	-30.37	-34.01
2016	-29.58	-18.79	-21.18	-20.63	-18.41	-22.02	-24.31	-23.94	-29.46	-32.96	-29.56	-26.16
2017	-23.57	-13.20	-12.32	-14.15	-14.32	-17.18	-21.52	-19.53	-24.39	-30.18	-31.42	-25.12
2013-2017 Avg.	-22.71	-14.94	-14.70	-14.92	-15.50	-19.59	-20.76	-19.93	-25.46	-30.60	-29.89	-26.54

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

BASIS
Tennessee Feeder Cattle: M-1 Heifers
700 - 800 lbs.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Futures Price												
2008	99.47	104.95	101.15	101.16	108.68	111.63	112.22	113.84	108.66	97.96	96.04	90.57
2009	94.42	92.64	92.37	98.07	99.49	98.00	103.04	100.32	97.77	93.97	93.64	93.60
2010	97.08	100.08	104.31	112.51	110.67	110.83	113.85	113.53	111.36	109.62	113.85	119.47
2011	124.65	127.46	130.45	133.21	127.08	130.70	138.26	133.86	134.04	139.54	143.73	144.76
2012	150.71	156.17	154.23	149.51	152.23	155.22	140.13	140.40	144.44	145.29	145.33	150.90
2013	148.08	143.85	137.76	139.08	137.59	145.69	151.97	154.47	157.94	165.49	164.29	166.20
2014	169.49	169.71	174.69	178.92	187.84	206.16	215.48	217.52	229.08	239.52	237.06	224.69
2015	217.76	199.98	213.05	215.57	218.35	222.75	213.27	212.16	195.46	189.61	174.48	156.66
2016	160.58	155.13	159.88	151.27	147.27	142.61	140.75	146.27	133.88	123.00	125.82	128.71
2017	130.03	123.61	129.34	136.84	145.65	149.74	148.81	143.69	149.35	154.12	156.09	145.91
Tennessee Cash Price												
2008	79.11	84.18	81.09	81.34	87.71	88.02	87.66	90.47	85.74	75.93	71.74	68.93
2009	74.71	74.02	74.14	80.28	82.83	81.36	83.84	82.69	78.69	73.17	71.85	71.24
2010	81.42	84.53	88.00	98.28	97.95	97.30	99.24	98.96	93.34	97.25	99.62	100.69
2011	98.19	103.03	106.23	113.00	108.89	106.67	113.31	108.32	102.94	108.20	107.88	110.67
2012	118.55	126.73	127.24	122.68	123.83	121.56	108.90	114.44	114.94	113.59	113.67	114.44
2013	119.90	117.92	112.69	111.69	110.70	111.66	122.15	127.10	123.95	127.08	130.55	130.75
2014	142.99	145.20	149.23	151.74	165.58	171.07	184.20	185.23	194.72	197.48	198.88	199.44
2015	183.96	179.20	186.67	189.71	191.07	194.11	188.44	182.44	163.63	150.74	136.00	116.89
2016	126.82	130.12	131.14	122.61	122.50	114.57	113.28	118.91	102.26	88.63	91.95	99.29
2017	102.73	104.83	109.84	115.13	125.98	126.51	121.40	118.25	118.77	119.25	121.85	116.10
Tennessee Cash vs. Futures												
2008	-20.36	-20.77	-20.06	-19.82	-20.97	-23.61	-24.56	-23.37	-22.92	-22.03	-24.30	-21.64
2009	-19.71	-18.62	-18.24	-17.79	-16.65	-16.64	-19.20	-17.63	-19.08	-20.80	-21.79	-22.35
2010	-15.66	-15.55	-16.32	-14.23	-12.73	-13.54	-14.62	-14.57	-18.03	-12.38	-14.24	-18.79
2011	-26.46	-24.43	-24.22	-20.21	-18.19	-24.03	-24.95	-25.54	-31.10	-31.34	-35.85	-34.09
2012	-32.16	-29.44	-26.99	-26.83	-28.40	-33.66	-31.23	-25.96	-29.50	-31.70	-31.66	-36.46
2013	-28.18	-25.93	-25.07	-27.39	-26.89	-34.03	-29.82	-27.37	-33.99	-38.41	-33.74	-35.45
2014	-26.50	-24.51	-25.46	-27.18	-22.26	-35.09	-31.28	-32.29	-34.36	-42.04	-38.18	-25.25
2015	-33.80	-20.78	-26.38	-25.86	-27.28	-28.64	-24.83	-29.72	-31.83	-38.87	-38.48	-39.77
2016	-33.76	-25.01	-28.74	-28.66	-24.77	-28.04	-27.47	-27.36	-31.62	-34.37	-33.87	-29.42
2017	-27.30	-18.78	-19.50	-21.71	-19.67	-23.23	-27.41	-25.44	-30.58	-34.87	-34.24	-29.81
2013-2017 Avg.	-29.91	-23.00	-25.03	-26.16	-24.18	-29.81	-28.16	-28.43	-32.48	-37.71	-35.70	-31.94

Sources: USDA/Tennessee Department of Agriculture Market News Service and Livestock Marketing Information Center

2013-2017 Average Basis for Load Lots - Steers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual**
							\$/cwt						
550-600					34.65						4.00		27.24
600-650	12.73	14.55			15.37		8.68		10.37	14.49	8.56		10.68
650-700	-6.50	-5.73	4.49	11.80	15.37	0.76	0.15	9.34	-3.57	-1.43	-1.67		0.77
700-750	2.24	-12.73	-1.74	0.28	-7.62	-9.80	3.01	-0.39	0.55	-3.96	-0.79	-1.92	-1.73
750-800	-6.39	-10.63	-7.91	-7.62	-7.13	-8.03	-4.73	-3.77	-5.07	-7.62	-5.54	-8.06	-6.54
800-850	-8.89	-14.45	-12.53	-10.26	-7.87	-7.81	-7.39	-7.32	-11.04	-12.50	-7.95	-8.41	-9.62
850-900	-11.88	-13.59	-15.08	-11.21	-7.05	-10.61	-10.29	-9.41	-12.61	-12.12	-8.12	-11.65	-11.06
900-950	-15.07	-14.25	-16.69	-20.46	-14.27	-14.46	-12.41	-13.57	-19.08	-18.31	-13.98	-11.79	-15.81
950-1000	-14.54	-14.30	-23.85	-24.81	-19.39	-23.86	-17.19	-20.79	-24.74	-22.00	-11.76		-21.09
1000-1050 *			-21.15			-23.32			-21.70	-25.13			-21.83

2013-2017 Average Basis for Load Lots - Heifers

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual**
							\$/cwt						
550-600			3.75	5.64		3.43	3.32	2.40	3.73	-7.62		-5.60	1.61
600-650	-10.00	-12.90	-5.53	-12.94	5.69	-4.35	-9.29	2.19	-3.22	-9.93	-7.25	-10.29	-5.82
650-700	-11.07	-28.69	-17.75	-3.07	-0.80		-13.57	-10.24	-3.93	-12.76	-15.65	-13.64	-11.40
700-750	-13.72	-23.62	-19.70	-20.22	-16.87	-18.11	-17.07	-12.58	-15.45	-18.06	-16.66	-13.07	-17.06
750-800	-17.74	-23.61	-19.05	-22.23	-16.27	-18.67	-15.55	-13.89	-21.03	-20.13	-17.65	-16.52	-18.40
800-850	-17.16	-20.87	-21.99	-15.61	-15.74	-18.51	-14.16	-18.76	-22.50	-21.31	-18.87	-16.86	-18.49
850-900 *	-27.25	-23.11		-21.83	-19.97	-25.67		-20.50		-22.44			-22.98
900-950 *									-31.24				-27.51

* Very few feeder heifers are sold weighing over 850 pounds or steers weighing over 1000 pounds.

** Annual average may be different due to including additional loads not represented in the monthly average. Due to monthly average, must include at least two loads to be presented.

**BASIS CALCULATIONS BETWEEN SLAUGHTER CATTLE FUTURES
AND SPECIFIED STEER CASH MARKETS ^a**
(\$ Per CWT)

12/13/17

2.130

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cattle Futures ^b												
2012	123.02	126.41	125.80	119.42	116.68	117.23	118.37	120.26	125.50	124.89	126.49	127.72
2013	129.32	126.73	127.62	126.71	120.76	120.23	121.94	122.84	126.09	130.02	132.17	132.40
2014	139.68	143.77	144.64	144.48	137.71	145.82	153.54	153.08	157.07	166.23	168.66	163.32
2015	157.29	157.28	156.99	160.15	151.60	152.05	146.79	147.12	137.33	133.88	132.27	125.16
2016	132.63	135.06	137.14	129.35	120.55	118.81	111.69	114.60	104.66	100.14	106.62	112.08
2017	118.07	118.84	118.66	125.98	124.69	124.42	115.15	108.98	107.79	112.56	121.21	
Texas-Oklahoma Cash												
2012	123.69	126.50	126.60	120.56	120.54	120.19	114.86	119.91	125.38	126.03	126.57	125.59
2013	124.96	124.44	126.45	127.18	125.38	120.77	118.97	121.74	123.91	128.71	131.53	131.92
2014	141.69	145.24	149.25	146.13	144.06	149.09	157.12	157.83	161.18	165.07	169.65	163.04
2015	164.23	159.87	162.87	160.64	160.14	149.87	148.79	148.28	132.02	134.95	129.65	124.78
2016	134.70	135.71	136.10	129.84	130.50	123.06	117.55	117.57	106.59	102.64	109.19	113.37
2017	120.37	121.90	126.73	131.96	137.61	103.73	118.55	112.12	107.20	112.05	121.70	
Texas-Oklahoma Basis												
2012	0.67	0.09	0.80	1.14	3.86	2.96	-3.51	-0.35	-0.12	1.14	0.08	-2.13
2013	-4.36	-2.29	-1.17	0.47	4.62	0.54	-2.97	-1.10	-2.18	-1.31	-0.64	-0.48
2014	2.01	1.47	4.61	1.65	6.35	3.27	3.58	4.75	4.11	-1.16	0.99	-0.28
2015	6.94	2.59	5.88	0.49	8.54	-2.18	2.00	1.16	-5.31	1.07	-2.62	-0.38
2016	2.07	0.65	-1.04	0.49	9.95	4.25	5.86	2.97	1.93	2.50	2.57	1.29
2017	2.30	3.06	8.07	5.98	12.92	-20.69	3.40	3.14	-0.59	-0.51	0.49	
2012-016 Avg.	1.47	0.50	1.82	0.85	6.66	1.77	0.99	1.49	-0.31	0.45	0.08	-0.40
Iowa-Minn Cash												
2012	123.85	124.37	127.38	123.27	121.82	121.27	114.93	118.77	123.40	123.72	125.73	125.45
2013	125.24	124.30	126.00	127.17	126.42	122.20	121.19	123.97	123.76	128.55	130.68	131.69
2014	141.61	145.18	150.30	149.27	147.46	149.89	158.01	156.54	157.58	163.67	168.25	163.26
2015	165.62	159.48	162.89	163.70	160.28	152.15	148.78	147.62	134.05	128.14	125.97	125.03
2016	130.14	130.96	136.75	129.85	127.75	125.09	118.17	115.49	104.83	100.01	106.65	112.93
2017	119.86	120.95	128.91	131.19	139.63	128.26	118.56	112.04	106.66	112.06	120.43	
Iowa-Minn Basis												
2012	0.83	-2.04	1.58	3.85	5.14	4.04	-3.44	-1.49	-2.10	-1.17	-0.76	-2.27
2013	-4.08	-2.43	-1.62	0.46	5.66	1.97	-0.75	1.13	-2.33	-1.47	-1.49	-0.71
2014	1.93	1.41	5.66	4.79	9.75	4.07	4.47	3.46	0.51	-2.56	-0.41	-0.06
2015	8.33	2.20	5.90	3.55	8.68	0.10	1.99	0.50	-3.28	-5.74	-6.30	-0.13
2016	-2.49	-4.10	-0.39	0.50	7.20	6.28	6.48	0.89	0.17	-0.13	0.03	0.85
2017	1.79	2.11	10.25	5.21	14.94	3.84	3.41	3.06	-1.13	-0.50	-0.78	
2012-016 Avg.	0.90	-0.99	2.23	2.63	7.29	3.29	1.75	0.90	-1.41	-2.21	-1.79	-0.46
Colorado Cash												
2012	123.77	125.89	127.47	121.79	122.58	119.16	114.68	120.73	125.04	125.70	126.82	125.72
2013	123.32	125.09	127.13	128.02	127.38	121.14	120.27	123.10	124.33	129.36	132.59	133.37
2014	142.21	148.52	151.77	147.50	146.20	150.53	158.85	158.49	161.81	165.17	170.82	164.34
2015	164.29	159.06	163.61	162.01	161.23	151.06	149.12	150.19	135.57	131.60	128.35	127.51
2016	133.32	132.31	138.47	131.35	130.68	123.61	117.67	117.85	106.78	101.46	109.14	114.57
2017	119.62	121.42	127.42	129.89	135.26	127.22	118.89	110.95	107.22	114.02	123.20	
Colorado Basis												
2012	0.75	-0.52	1.67	2.37	5.90	1.93	-3.69	0.47	-0.46	0.81	0.33	-2.00
2013	-6.00	-1.64	-0.49	1.31	6.62	0.91	-1.67	0.26	-1.76	-0.66	0.42	0.97
2014	2.53	4.75	7.13	3.02	8.49	4.71	5.31	5.41	4.74	-1.06	2.16	1.02
2015	7.00	1.78	6.62	1.86	9.63	-0.99	2.33	3.07	-1.76	-2.28	-3.92	2.35
2016	0.69	-2.75	1.33	2.00	10.13	4.80	5.98	3.25	2.12	1.32	2.52	2.49
2017	1.55	2.58	8.76	3.91	10.57	2.80	3.74	1.97	-0.57	1.46	1.99	
2012-016 Avg.	0.99	0.33	3.25	2.11	8.15	2.27	1.65	2.49	0.58	-0.37	0.30	0.97

**BASIS CALCULATIONS BETWEEN SLAUGHTER CATTLE FUTURES
AND SPECIFIED STEER CASH MARKETS ^a**
(\$ Per CWT)

12/13/17

2.130

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cattle Futures ^b												
2012	123.02	126.41	125.80	119.42	116.68	117.23	118.37	120.26	125.50	124.89	126.49	127.72
2013	129.32	126.73	127.62	126.71	120.76	120.23	121.94	122.84	126.09	130.02	132.17	132.40
2014	139.68	143.77	144.64	144.48	137.71	145.82	153.54	153.08	157.07	166.23	168.66	163.32
2015	157.29	157.28	156.99	160.15	151.60	152.05	146.79	147.12	137.33	133.88	132.27	125.16
2016	132.63	135.06	137.14	129.35	120.55	118.81	111.69	114.60	104.66	100.14	106.62	112.08
2017	118.07	118.84	118.66	125.98	124.69	124.42	115.15	108.98	107.79	112.56	121.21	
Kansas Cash												
2012	123.06	125.42	126.94	121.40	120.91	118.73	114.32	120.39	124.99	125.59	125.69	125.48
2013	124.96	125.54	127.18	127.46	125.54	120.53	119.04	121.72	123.91	128.57	131.21	131.48
2014	141.38	146.02	149.69	146.83	144.50	149.22	157.61	156.50	161.41	163.96	170.59	162.86
2015	163.86	160.07	162.09	161.23	160.56	150.81	148.53	148.00	137.35	132.63	128.32	125.87
2016	134.85	135.06	136.29	130.20	129.25	123.58	117.09	116.47	106.07	101.80	109.60	114.22
2017	120.37	121.23	127.00	130.92	138.38	130.07	118.80	110.99	106.96	112.49	121.38	
Kansas Basis												
2012	0.04	-0.99	1.14	1.98	4.23	1.50	-4.05	0.13	-0.51	0.70	-0.80	-2.24
2013	-4.36	-1.19	-0.44	0.75	4.78	0.30	-2.90	-1.12	-2.18	-1.45	-0.96	-0.92
2014	1.70	2.25	5.05	2.35	6.79	3.40	4.07	3.42	4.34	-2.27	1.93	-0.46
2015	6.57	2.79	5.10	1.08	8.96	-1.24	1.74	0.88	0.02	-1.25	-3.95	0.71
2016	2.22	0.00	-0.85	0.85	8.70	4.77	5.40	1.87	1.41	1.66	2.98	2.14
2017	2.30	2.39	8.34	4.94	13.69	5.65	3.65	2.01	-0.83	-0.07	0.17	
2012-016 Avg.	1.23	0.57	2.00	1.40	6.69	1.74	0.85	1.04	0.62	-0.52	-0.16	-0.15
Nebraska Cash												
2012	123.41	125.47	127.33	122.34	121.91	119.69	114.65	119.93	124.90	125.66	125.91	125.56
2013	124.22	125.32	126.84	126.68	126.68	121.62	120.41	123.71	124.08	130.18	131.96	131.81
2014	143.05	146.27	151.71	149.28	145.92	149.27	159.06	158.14	160.03	164.70	170.08	163.23
2015	164.75	159.96	163.25	162.91	160.88	151.13	149.15	149.02	136.78	131.20	126.56	124.25
2016	132.66	133.03	137.58	129.96	129.89	123.14	117.04	116.35	105.78	100.01	106.92	114.39
2017	119.70	121.78	127.58	131.46	137.80	128.54	118.12	112.27	107.41	112.56	121.76	
Nebraska Basis												
2012	0.39	-0.94	1.53	2.92	5.23	2.46	-3.72	-0.33	-0.60	0.77	-0.58	-2.16
2013	-5.10	-1.41	-0.78	-0.03	5.92	1.39	-1.53	0.87	-2.01	0.16	-0.21	-0.59
2014	3.37	2.50	7.07	4.80	8.21	3.45	5.52	5.06	2.96	-1.53	1.42	-0.09
2015	7.46	2.68	6.26	2.76	9.28	-0.92	2.36	1.90	-0.55	-2.68	-5.71	-0.91
2016	0.03	-2.03	0.44	0.61	9.34	4.33	5.35	1.75	1.12	-0.13	0.30	2.31
2017	1.63	2.94	8.92	5.48	13.11	4.12	2.97	3.29	-0.38	0.00	0.55	
2012-016 Avg.	1.23	0.16	2.90	2.21	7.60	2.14	1.60	1.85	0.18	-0.68	-0.96	-0.29

^a Monthly weighted average live slaughter steer total price

^b Average of daily close of nearby futures contract (using Feb, Apr, Jun, Aug, Oct & Dec contracts)

Source: AMS reports and CME futures prices

AVERAGE BASIS FED STEERS^a

Live, Kansas, Weekly

01/22/18

2.133

February										April									
Week	Week Ending	2013	2014	2015	2016	2017	2018	Avg. 12-16	Std. Dev.	Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std. Dev.
14	11/25/17	-4.14	-1.42	2.95	-6.46	0.72	-6.16	-1.66	3.76	01/28/17	-4.62	-8.40	6.84	8.93	3.68	3.73	-0.97	8.24	
13	12/02/17	-6.86	-1.80	0.03	-7.26	3.99	-4.47	-3.01	3.83	02/04/17	-5.50	-7.91	4.47	8.71	0.90	4.21	-1.63	7.71	
12	12/09/17	-6.61	-1.89	1.17	-7.23	-0.24	-2.56	-2.85	3.89	02/11/17	-5.29	-6.53	1.63	11.49	2.26	5.06	-0.91	7.67	
11	12/16/17	-7.50	-3.18	-2.05	-7.61	-1.88	0.59	-4.21	3.17	02/18/17	-1.26	-6.98	0.71	9.34	0.53	5.92	-0.57	6.29	
10	12/23/17	-7.57	-1.47	0.87	-10.64	-0.70	0.37	-3.58	5.25	02/25/17	-2.20	-3.52	3.03	9.12	0.74	8.92	0.67	5.41	
9	12/30/17	-6.42	1.46	1.29	-1.60	1.05	1.41	-1.36	3.19	03/04/17	0.38	-1.52	6.46	10.60	-0.55	8.21	3.04	5.26	
8	01/06/18	-4.87	2.35	5.24	-2.23	2.83	-0.11	-0.03	3.94	03/11/17	0.37	-0.94	3.79	7.68	0.36	7.96	2.52	3.37	
7	01/13/18	-6.02	2.72	7.19	2.98	0.78	2.74	1.71	4.81	03/18/17	-0.42	-0.87	4.18	5.95	-1.52	9.37	2.13	2.94	
6	01/20/18	-3.83	4.38	7.21	5.03	1.68	2.07	2.93	4.23	03/25/17	1.30	-1.04	5.03	7.12	-0.59	8.67	2.21	3.75	
5	01/27/18	-3.81	2.62	6.37	3.38	2.59		1.49	3.99	04/01/17	1.18	0.79	5.69	2.93	-0.73	7.02	2.29	2.09	
4	02/03/18	-3.04	0.91	7.17	-0.38	2.75		0.58	3.97	04/08/17	2.56	0.68	3.32	4.66	0.82	6.88	2.75	1.44	
3	02/10/18	-2.18	-0.59	2.86	1.46	3.04		-0.11	2.23	04/15/17	2.45	1.02	3.43	1.48	1.38	3.87	1.82	1.11	
2	02/17/18	-3.17	0.66	1.61	-0.39	2.62		0.00	1.93	04/22/17	1.22	0.47	0.82	1.32	0.35	2.67	0.80	0.49	
1	02/24/18	-0.85	1.52	0.77	-0.29	2.82		0.21	0.94	04/29/17	1.38	1.11	1.77	0.34	-1.02	3.90	0.91	0.76	
June										August									
Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std. Dev.	Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std. Dev.
14	04/01/17	5.05	5.46	13.68	12.13	9.81	16.32	7.11	5.85	05/27/17	1.94	4.17	5.18	8.36	10.30	10.35	3.87	3.28	
13	04/08/17	5.83	5.38	11.41	14.14	8.57	15.56	7.68	5.03	06/03/17	1.93	2.45	4.72	3.55	10.23	13.25	2.43	1.96	
12	04/15/17	6.24	5.93	11.86	11.82	10.86	13.59	8.07	3.50	06/10/17	0.33	1.01	3.87	1.54	10.42	12.55	1.54	1.37	
11	04/22/17	6.22	5.49	10.63	10.46	11.63	14.71	7.15	3.33	06/17/17	-1.37	-0.16	3.60	-0.60	7.32	12.03	0.68	2.04	
10	04/29/17	6.98	6.18	10.39	10.25	9.70	17.84	7.30	3.19	06/24/17	-1.67	-2.02	4.15	-2.25	4.44	6.53	-0.50	2.67	
9	05/06/17	5.67	5.76	8.52	9.43	7.26	16.56	6.60	2.36	07/01/17	-2.26	-2.90	5.63	-0.01	8.44	2.51	0.14	3.36	
8	05/13/17	3.95	5.34	8.34	10.29	9.26	12.19	6.43	2.76	07/08/17	-3.33	-3.11	4.53	0.69	7.38	2.97	-0.12	3.24	
7	05/20/17	5.76	5.13	7.51	8.85	9.39	10.98	6.00	2.33	07/15/17	-4.59	-2.93	6.35	0.88	6.21	3.54	-0.49	4.31	
6	05/27/17	2.60	3.85	5.51	8.99	9.17	7.92	4.49	2.93	07/22/17	-4.65	-2.73	7.65	0.44	5.07	3.48	-0.28	4.79	
5	06/03/17	3.68	3.06	6.20	7.36	6.28	9.91	4.22	2.59	07/29/17	-1.50	-2.17	4.39	2.24	2.58	3.37	-0.27	3.51	
4	06/10/17	3.53	1.58	6.38	1.91	6.41	5.69	2.85	2.21	08/05/17	-0.85	-0.48	3.22	1.22	1.90	2.54	0.33	1.90	
3	06/17/17	1.05	0.32	3.39	-0.52	5.78	6.31	1.20	1.49	08/12/17	-0.65	-0.79	4.73	0.41	2.36	4.27	0.84	2.26	
2	06/24/17	-0.84	-0.30	2.72	-1.69	3.13	2.38	0.51	2.05	08/19/17	0.64	-0.62	1.96	0.48	3.24	1.33	0.07	1.52	
1	07/01/17	-0.08	-0.67	2.94	-2.43	0.78	-1.26	-0.13	1.94	08/26/17	4.03	-0.22	1.00	1.72	2.51	0.89	1.10	1.95	
October										December									
Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std. Dev.	Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std. Dev.
14	07/29/17	-9.66	-6.67	4.69	1.10	3.91	3.77	-3.86	6.39	09/30/17	-2.83	-5.51	-1.47	-7.11	0.34	-6.59	-3.44	2.83	
13	08/05/17	-6.75	-6.06	5.72	1.69	3.65	2.86	-2.83	6.22	10/07/17	-2.03	-4.64	-4.06	-12.58	-0.46	-6.26	-4.71	4.73	
12	08/12/17	-5.18	-4.47	6.99	1.74	4.25	6.27	-1.47	5.68	10/14/17	-1.32	-3.39	-2.85	-8.12	-0.14	-6.70	-3.41	2.78	
11	08/19/17	-5.26	-4.90	5.78	0.84	5.78	2.53	-1.22	4.61	10/21/17	-0.23	-2.23	-0.78	-2.21	0.22	-5.55	-1.66	1.11	
10	08/26/17	-3.93	-4.62	5.86	3.76	6.19	0.25	-0.55	4.95	10/28/17	0.50	-0.82	1.86	-5.06	0.41	-1.76	-1.14	2.66	
9	09/02/17	-1.95	-3.95	6.70	1.40	5.04	-1.45	0.08	4.17	11/04/17	0.43	-1.26	0.56	-4.18	0.78	-0.75	-1.05	1.92	
8	09/09/17	-2.23	-2.86	3.22	-1.86	2.94	-0.70	-1.00	2.43	11/11/17	-0.68	-1.12	0.68	-4.20	1.37	0.41	-1.72	1.99	
7	09/16/17	-0.22	-2.20	2.84	-2.68	3.71	-1.13	-0.50	2.18	11/18/17	-0.67	-1.38	3.22	-2.13	1.28	-0.69	0.31	2.40	
6	09/23/17	0.04	-1.61	1.97	-4.23	-0.81	-1.63	-1.27	2.38	11/25/17	-0.56	-1.22	1.94	-2.42	1.71	-0.05	-0.19	1.80	
5	09/30/17	-0.10	-1.66	-0.66	-5.96	0.59	-0.80	-2.03	2.31	12/02/17	-2.99	-0.49	3.50	-4.34	5.14	1.17	-0.40	3.35	
4	10/07/17	1.10	-0.24	-0.94	-0.91	0.32	-0.45	-0.18	0.84	12/09/17	-2.28	-0.41	0.54	-4.06	1.19	1.05	-0.72	2.56	
3	10/14/17	0.61	0.60	-0.91	2.03	1.32	-1.79	0.21	1.33	12/16/17	-2.20	-0.86	1.52	-2.34	0.85	3.25	-0.59	1.77	
2	10/21/17	1.22	1.11	1.74	-2.03	1.45	-0.56	0.02	1.84	12/23/17	-2.99	-1.85	-2.43	-2.44	2.27	0.25	-1.99	1.05	
1	10/28/17	0.95	0.19	-1.85	-1.09	1.38	4.07	-0.51	1.10	12/30/17	-2.20	-0.18	-0.75	-4.44	0.73	0.21	-1.30	2.12	

^a Through the last full week of trading of the Chicago Mercantile Exchange's Live Cattle Contract. Weekly weighted average live slaughter steer price

**BASIS CALCULATIONS BETWEEN SLAUGHTER CATTLE FUTURES
AND SPECIFIED HEIFER CASH MARKETS ^a**
(\$ Per CWT)

12/13/17

2.131

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cattle Futures ^b												
2012	123.02	126.41	125.80	119.42	116.68	117.23	118.37	120.26	125.50	124.89	126.49	127.72
2013	129.32	126.73	127.62	126.71	120.76	120.23	121.94	122.84	126.09	130.02	132.17	132.40
2014	139.68	143.77	144.64	144.48	137.71	145.82	153.54	153.08	157.07	166.23	168.66	163.32
2015	157.29	157.28	156.99	160.15	151.60	152.05	146.79	147.12	137.33	133.88	132.27	125.16
2016	132.63	135.06	137.14	129.35	120.55	118.81	111.69	114.60	104.66	100.14	106.62	112.08
2017	118.07	118.84	118.66	125.98	124.69	124.42	115.15	108.98	107.79	112.56	121.21	
Texas-Oklahoma Cash												
2012	123.47	126.02	126.41	120.79	121.09	120.47	114.95	119.54	125.79	125.75	126.43	125.22
2013	125.05	124.57	126.63	126.99	125.17	120.77	118.98	122.14	123.77	128.98	131.59	132.23
2014	142.90	145.08	148.82	145.89	144.13	147.61	157.75	157.10	160.12	165.93	169.54	164.52
2015	163.17	160.27	163.32	161.91	160.51	150.28	148.99	147.60	134.86	136.34	130.29	124.90
2016	135.10	134.69	137.46	127.79	130.14	122.69	118.08	116.67	106.34	102.21	109.63	113.91
2017	119.83	121.08	126.67	133.70	137.61	129.72	118.96	113.05	106.61	113.51	122.13	
Texas-Oklahoma Basis												
2012	0.45	-0.39	0.61	1.37	4.41	3.24	-3.42	-0.72	0.29	0.86	-0.06	-2.50
2013	-4.27	-2.16	-0.99	0.28	4.41	0.54	-2.96	-0.70	-2.32	-1.04	-0.58	-0.17
2014	3.22	1.31	4.18	1.41	6.42	1.79	4.21	4.02	3.05	-0.30	0.88	1.20
2015	5.88	2.99	6.33	1.76	8.91	-1.77	2.20	0.48	-2.47	2.46	-1.98	-0.26
2016	2.47	-0.37	0.32	-1.56	9.59	3.88	6.39	2.07	1.68	2.07	3.01	1.83
2017	1.76	2.24	8.01	7.72	12.92	5.30	3.81	4.07	-1.18	0.95	0.92	
2012-016 Avg.	1.55	0.28	2.09	0.65	6.75	1.53	1.29	1.03	0.05	0.81	0.25	0.02
Iowa-Minn Cash												
2012	123.81	124.82	127.58	122.00	121.37	120.53	114.73	118.82	123.23	124.47	125.65	125.85
2013	125.28	123.84	125.46	127.15	126.69	122.12	121.46	124.11	124.02	128.38	131.23	131.57
2014	142.17	145.31	149.92	148.44	146.79	149.79	157.83	155.71	158.10	163.83	169.10	163.87
2015	166.46	159.06	161.93	163.42	160.12	150.76	149.53	148.01	132.94	129.73	125.32	123.16
2016	130.04	130.10	135.64	127.69	127.23	124.44	117.46	115.47	104.52	99.77	106.24	111.31
2017	118.62	120.33	126.03	129.85	137.87	125.77	118.58	111.05	106.81	111.78	120.43	
Iowa-Minn Basis												
2012	0.79	-1.59	1.78	2.58	4.69	3.30	-3.64	-1.44	-2.27	-0.42	-0.84	-1.87
2013	-4.04	-2.89	-2.16	0.44	5.93	1.89	-0.48	1.27	-2.07	-1.64	-0.94	-0.83
2014	2.49	1.54	5.28	3.96	9.08	3.97	4.29	2.63	1.03	-2.40	0.44	0.55
2015	9.17	1.78	4.94	3.27	8.52	-1.29	2.74	0.89	-4.39	-4.15	-6.95	-2.00
2016	-2.59	-4.96	-1.50	-1.66	6.68	5.63	5.77	0.87	-0.14	-0.37	-0.38	-0.77
2017	0.55	1.49	7.37	3.87	13.18	1.35	3.43	2.07	-0.98	-0.78	-0.78	
2012-016 Avg.	1.16	-1.22	1.67	1.72	6.98	2.70	1.74	0.85	-1.57	-1.79	-1.73	-0.98
Colorado Cash												
2012	123.42	125.84	127.70	121.68	122.48	118.59	114.95	121.03	125.08	126.12	126.23	125.58
2013	123.82	124.65	127.33	128.29	127.46	121.51	120.38	123.90	124.03	129.49	132.51	132.34
2014	142.76	148.32	151.53	148.70	146.43	151.28	159.63	157.51	162.08	165.37	172.08	164.29
2015	161.40	158.89	163.97	162.72	161.05	150.16	150.16	150.42	137.57	133.52	128.53	125.66
2016	133.54	132.90	138.15	130.68	128.05	122.05	117.30	118.48	106.34	100.77	110.74	115.61
2017	119.82	121.24	127.84	132.30	134.65	128.70	118.63	110.74	107.93	114.45	121.89	
Colorado Basis												
2012	0.40	-0.57	1.90	2.26	5.80	1.36	-3.42	0.77	-0.42	1.23	-0.26	-2.14
2013	-5.50	-2.08	-0.29	1.58	6.70	1.28	-1.56	1.06	-2.06	-0.53	0.34	-0.06
2014	3.08	4.55	6.89	4.22	8.72	5.46	6.09	4.43	5.01	-0.86	3.42	0.97
2015	4.11	1.61	6.98	2.57	9.45	-0.86	3.37	3.30	0.24	-0.36	-3.74	0.50
2016	0.91	-2.16	1.01	1.33	7.50	3.24	5.61	3.88	1.68	0.63	4.12	3.53
2017	1.75	2.40	9.18	6.32	9.96	4.28	3.48	1.76	0.14	1.89	0.68	
2012-016 Avg.	0.60	0.27	3.30	2.39	7.63	2.09	2.02	2.69	0.89	0.02	0.78	0.56

**BASIS CALCULATIONS BETWEEN SLAUGHTER CATTLE FUTURES
AND SPECIFIED HEIFER CASH MARKETS ^a**
(\$ Per CWT)

12/13/17

2.131

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cattle Futures ^b												
2012	123.02	126.41	125.80	119.42	116.68	117.23	118.37	120.26	125.50	124.89	126.49	127.72
2013	129.32	126.73	127.62	126.71	120.76	120.23	121.94	122.84	126.09	130.02	132.17	132.40
2014	139.68	143.77	144.64	144.48	137.71	145.82	153.54	153.08	157.07	166.23	168.66	163.32
2015	157.29	157.28	156.99	160.15	151.60	152.05	146.79	147.12	137.33	133.88	132.27	125.16
2016	132.63	135.06	137.14	129.35	120.55	118.81	111.69	114.60	104.66	100.14	106.62	112.08
2017	118.07	118.84	118.66	125.98	124.69	124.42	115.15	108.98	107.79	112.56	121.21	
Kansas Cash												
2012	123.15	125.19	126.83	121.40	121.06	119.04	114.50	120.28	125.14	125.69	125.66	125.26
2013	125.06	125.71	127.07	127.42	125.55	120.39	119.01	121.86	123.73	128.67	131.34	131.66
2014	142.03	146.70	149.45	146.64	144.42	149.18	157.97	156.21	161.50	164.16	170.24	162.81
2015	163.37	159.93	162.53	161.09	160.56	151.37	148.35	148.71	134.85	132.58	127.92	125.81
2016	134.95	134.94	136.52	130.08	128.81	123.04	117.09	115.85	106.49	101.45	108.77	114.15
2017	120.56	121.41	126.49	130.61	137.21	129.58	118.61	111.24	106.89	112.33	121.89	
Kansas Basis												
2012	0.13	-1.22	1.03	1.98	4.38	1.81	-3.87	0.02	-0.36	0.80	-0.83	-2.46
2013	-4.26	-1.02	-0.55	0.71	4.79	0.16	-2.93	-0.98	-2.36	-1.35	-0.83	-0.74
2014	2.35	2.93	4.81	2.16	6.71	3.36	4.43	3.13	4.43	-2.07	1.58	-0.51
2015	6.08	2.65	5.54	0.94	8.96	-0.68	1.56	1.59	-2.48	-1.30	-4.35	0.65
2016	2.32	-0.12	-0.62	0.73	8.26	4.23	5.40	1.25	1.83	1.31	2.15	2.07
2017	2.49	2.57	7.83	4.63	12.52	5.16	3.46	2.26	-0.90	-0.23	0.68	
2012-016 Avg.	1.32	0.65	2.04	1.30	6.62	1.77	0.92	1.00	0.21	-0.52	-0.46	-0.20
Nebraska Cash												
2012	123.20	126.04	127.46	122.18	122.38	119.52	115.16	120.28	125.32	125.76	126.21	125.71
2013	124.50	125.11	126.74	127.62	126.33	121.49	120.47	123.96	124.16	129.56	132.03	131.97
2014	143.22	146.26	151.25	149.58	146.29	150.46	160.20	157.82	161.24	165.85	171.14	164.24
2015	164.23	159.94	163.57	163.30	160.87	151.23	149.01	149.68	135.16	132.33	127.68	124.04
2016	133.32	133.31	137.40	130.50	129.54	123.76	118.05	116.52	106.37	102.19	108.73	113.86
2017	119.48	120.31	128.36	131.48	138.04	128.07	118.68	112.15	107.28	112.49	121.38	
Nebraska Basis												
2012	0.18	-0.37	1.66	2.76	5.70	2.29	-3.21	0.02	-0.18	0.87	-0.28	-2.01
2013	-4.82	-1.62	-0.88	0.91	5.57	1.26	-1.47	1.12	-1.93	-0.46	-0.14	-0.43
2014	3.54	2.49	6.61	5.10	8.58	4.64	6.66	4.74	4.17	-0.38	2.48	0.92
2015	6.94	2.66	6.58	3.15	9.27	-0.82	2.22	2.56	-2.17	-1.55	-4.59	-1.12
2016	0.69	-1.75	0.26	1.15	8.99	4.95	6.36	1.92	1.71	2.05	2.11	1.78
2017	1.41	1.47	9.70	5.50	13.35	3.65	3.53	3.17	-0.51	-0.07	0.17	
2012-016 Avg.	1.31	0.28	2.85	2.61	7.62	2.46	2.11	2.07	0.32	0.11	-0.08	-0.17

^a Monthly weighted average live slaughter heifer (35-65% choice)

^b Average of daily close of nearby futures contract (using Feb, Apr, Jun, Aug, Oct & Dec contracts)

Source: AMS reports and CME futures prices

AVERAGE BASIS FED HEIFERS^a

Live, Kansas, Weekly

01/22/18
2.134

February										April								
Week	Week Ending	2013	2014	2015	2016	2017	2018	Avg. 12-16	Std Dev	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std Dev
14	11/25/17	-4.07	-1.35	2.58	-6.47	0.41	-6.03	-1.72	3.63	01/28/17	-4.62	-8.47	6.73	9.08	3.86	3.80	-0.95	8.25
13	12/02/17	-6.93	-1.73	0.03	-7.31	4.04	-4.32	-3.00	3.88	02/04/17	-5.43	-7.87	4.50	8.54	1.06	4.24	-1.63	7.64
12	12/09/17	-6.84	-1.89	0.88	-7.25	-0.24	-2.46	-2.95	3.88	02/11/17	-5.10	-6.53	1.63	11.35	2.17	5.00	-0.88	7.57
11	12/16/17	-7.38	-3.14	-2.28	-7.48	-1.87	0.34	-4.21	3.06	02/18/17	-1.42	-6.98	0.88	9.23	0.52	5.65	-0.59	6.26
10	12/23/17	-7.57	-1.33	0.86	-11.15	-0.55	0.35	-3.66	5.43	02/25/17	-2.06	-3.54	3.06	9.16	0.88	8.83	0.68	5.43
9	12/30/17	-6.41	1.47	1.30	-1.45	1.13	1.41	-1.33	3.18	03/04/17	0.27	-1.58	6.40	10.33	-0.51	8.10	2.94	5.19
8	01/06/18	-4.87	2.32	5.41	-2.23	2.78	-0.14	-0.01	3.99	03/11/17	0.45	-0.94	3.84	7.65	0.38	8.18	2.54	3.36
7	01/13/18	-6.02	2.53	6.86	2.94	0.79	2.59	1.60	4.70	03/18/17	-0.47	-0.91	4.26	5.94	-1.60	9.31	2.14	2.96
6	01/20/18	-3.65	4.27	7.36	5.18	1.63	2.12	3.01	4.21	03/25/17	1.21	-1.01	5.02	7.04	-0.56	8.34	2.19	3.70
5	01/27/18	-3.88	2.65	6.20	3.56	2.66		1.49	3.98	04/01/17	1.48	0.77	5.50	3.05	-0.69	6.84	2.35	1.98
4	02/03/18	-3.00	0.91	7.03	-0.22	2.78		0.60	3.89	04/08/17	2.53	0.54	3.29	4.75	0.74	6.69	2.73	1.52
3	02/10/18	-2.18	-0.43	2.76	1.37	2.98		-0.08	2.13	04/15/17	2.44	1.02	3.40	1.48	1.39	3.62	1.82	1.10
2	02/17/18	-3.17	0.69	1.65	-0.40	2.36		-0.02	1.91	04/22/17	1.22	0.51	0.80	1.73	0.33	2.42	0.89	0.61
1	02/24/18	-0.87	1.46	0.51	-0.16	2.73		0.19	0.86	04/29/17	1.38	1.12	1.76	0.20	-0.96	3.81	0.85	0.82
June										August								
Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std Dev	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std Dev
14	04/01/17	5.35	5.44	13.49	12.25	9.84	16.14	7.17	5.79	05/27/17	1.93	4.18	5.00	8.31	10.40	10.47	3.82	3.27
13	04/08/17	5.80	5.24	11.39	14.23	8.60	15.38	7.67	5.05	06/03/17	1.97	2.38	4.60	3.64	10.04	13.03	2.44	1.89
12	04/15/17	6.23	5.93	11.83	11.82	10.78	13.34	8.07	3.49	06/10/17	0.33	0.99	3.75	2.05	10.24	12.39	1.57	1.37
11	04/22/17	6.22	5.53	10.61	10.87	11.65	14.46	7.24	3.42	06/17/17	-1.36	-0.30	3.68	-0.69	7.57	11.36	0.67	2.11
10	04/29/17	6.98	6.19	10.37	10.12	9.68	17.75	7.27	3.15	06/24/17	-1.67	-1.93	4.01	-2.24	4.36	5.99	-0.49	2.59
9	05/06/17	5.60	5.91	8.33	9.43	7.33	16.39	6.55	2.36	07/01/17	-2.35	-2.98	5.64	-0.02	7.50	2.47	0.12	3.40
8	05/13/17	4.02	5.34	8.29	10.32	9.19	12.07	6.43	2.77	07/08/17	-3.20	-3.10	4.61	0.69	7.37	2.75	-0.06	3.24
7	05/20/17	5.77	5.16	7.52	8.88	9.55	10.62	6.03	2.33	07/15/17	-4.67	-3.03	6.06	1.22	6.27	3.51	-0.48	4.24
6	05/27/17	2.57	3.81	5.54	8.90	8.92	8.04	4.45	2.92	07/22/17	-4.63	-2.73	7.97	0.50	4.96	3.40	-0.20	4.92
5	06/03/17	3.67	3.07	6.02	7.31	6.37	9.69	4.17	2.56	07/29/17	-1.57	-2.27	4.49	2.35	2.58	3.30	-0.27	3.60
4	06/10/17	3.57	1.50	6.26	2.00	6.22	5.53	2.86	2.14	08/05/17	-0.95	-0.58	3.33	1.15	1.75	2.34	0.29	1.97
3	06/17/17	1.05	0.30	3.27	-0.01	5.60	5.64	1.23	1.29	08/12/17	-0.57	-0.82	4.70	0.71	2.32	4.22	0.90	2.23
2	06/24/17	-0.83	-0.45	2.80	-1.79	3.38	1.84	0.49	2.13	08/19/17	0.73	-0.48	1.73	0.38	3.22	1.56	0.06	1.42
1	07/01/17	-0.08	-0.58	2.80	-2.41	0.70	-1.30	-0.12	1.87	08/26/17	3.94	-0.18	1.07	1.47	2.49	0.89	1.05	1.91
October										December								
Week	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std Dev	Week Ending	2012	2013	2014	2015	2016	2017	Avg. 11-15	Std Dev
14	07/29/17	-9.64	-6.68	4.79	1.21	3.91	3.70	-3.82	6.45	09/30/17	-2.69	-5.50	-2.08	-6.82	0.50	-6.62	-3.48	2.64
13	08/05/17	-6.82	-6.15	5.84	1.62	3.50	2.65	-2.86	6.27	10/07/17	-2.11	-4.65	-3.84	-10.78	-0.39	-6.31	-4.34	3.97
12	08/12/17	-5.28	-4.57	6.96	2.05	4.21	6.23	-1.45	5.75	10/14/17	-1.24	-3.41	-2.71	-8.01	-0.11	-6.73	-3.35	2.76
11	08/19/17	-5.18	-4.94	5.56	0.75	5.76	2.75	-1.28	4.50	10/21/17	-0.17	-2.25	-0.69	-1.94	0.14	-5.60	-1.59	1.13
10	08/26/17	-3.84	-4.48	5.93	3.51	6.16	0.24	-0.53	4.88	10/28/17	0.52	-0.85	2.11	-5.16	0.32	-1.59	-1.07	2.75
9	09/02/17	-2.04	-3.92	6.55	1.43	5.11	-1.39	0.04	4.12	11/04/17	0.37	-1.25	0.36	-4.18	0.81	-0.69	-1.09	1.86
8	09/09/17	-2.07	-2.82	3.03	-2.30	2.92	-0.72	-1.11	2.37	11/11/17	-0.69	-1.09	0.70	-4.32	1.37	0.48	-1.73	2.03
7	09/16/17	-0.16	-2.19	2.84	-2.68	3.72	-1.20	-0.47	2.18	11/18/17	-0.67	-1.39	2.78	-2.43	1.18	-0.73	0.17	2.37
6	09/23/17	0.02	-1.58	1.36	-3.94	-0.70	-1.71	-1.34	2.09	11/25/17	-0.49	-1.17	2.11	-2.45	1.40	0.08	-0.16	1.83
5	09/30/17	0.04	-1.65	-0.44	-4.16	0.74	-0.83	-1.59	1.63	12/02/17	-3.06	-0.43	3.13	-4.35	5.19	1.32	-0.49	3.25
4	10/07/17	1.02	-0.24	-0.80	-0.80	0.39	-0.49	-0.15	0.75	12/09/17	-2.51	-0.34	0.54	-4.10	1.19	1.15	-0.75	2.64
3	10/14/17	0.70	0.59	-0.82	2.29	1.35	-1.81	0.30	1.40	12/16/17	-2.08	-0.86	1.24	-2.36	0.86	3.00	-0.62	1.67
2	10/21/17	1.28	1.08	1.99	-2.13	1.36	-0.61	0.06	1.94	12/23/17	-2.99	-1.80	-2.65	-2.31	2.42	0.24	-2.01	1.05
1	10/28/17	0.97	0.16	-2.05	-1.09	1.29	4.24	-0.51	1.16	12/30/17	-2.19	-0.04	-0.76	-4.94	0.81	0.21	-1.37	2.33

^a Through the last full week of trading of the Chicago Mercantile Exchange's Live Cattle Contract. Weekly weighted average live slaughter heifer price



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