Weight-Price Data as a Beef Cattle Management Tool

A Study of Monthly Cash Prices of Calves and Yearlings by 25-Pound Weight Increments
Dodge City
Part II 1992 - 1996

Kansas State University Cooperative Extension Service and Agricultural Experiment Station

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Marvin R. Fausett
Extension Agricultural Economist, Southeast

Kevin C. Dhuyvetter
Extension Agricultural Economist, Northeast

George E. Lippert
Extension Specialist, Crop Protection, Southeast

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Beef cattle management systems have changed dramatically during the last 20 years. New breeds, improved genetics, crossbreeding, improved production practices in nutrition, growth implants, and fly and parasite control have increased calf weaning weights. Heavier calves at weaning do not fit the traditional production system of calving in the spring, weaning in the fall, backgrounding at a low rate of gain, summer grazing, and selling feeder calves in the following fall. Short season intensive grazing (double stocking), for example, is a relatively new production practice for summer grazing. These production changes have long-range marketing and economic consequences. Each management decision that affects the production systems needs to be evaluated for its economic effect on the farm business.

The economic effect of a specific management decision that increases or decreases the average selling weight of calves or yearlings is determined by the value of gain and the cost of that gain. The cost of a particular management decision is fairly straightforward to calculate. The value of gain depends on the amount of gain and the price margin between the two weights, which varies by time of year.

The purpose of this bulletin is to report the prices of calves and yearlings by month in 25-pound weight increments, and to show how this information can be used for decision making. Price data has been reported in 100-pound increments until 1992, when USDA began reporting in 50-pound increments. Many management practices affect weight gain by smaller amounts (25 to 30 pounds). Thus, to accurately budget the potential value of production, price data is needed on small weight increments at different times of the year.

About the Data

Ten years of sales data from Winter Livestock Auction, Dodge City, as reported in the *High Plains Journal* were recorded. The first 5 years of data, 1987 to 1991, are shown in *Weight-Price Data as a Beef Cattle Management Tool*, C-732, Cooperative Extension Service, Kansas State University, 1993. The second 5 years, 1992 to 1996, are reported in this publication. Information was reported on lots of 10 head or more, by date, age (calves or yearlings), sex (steers or heifers), number of head, breed, average weight, and price per hundred weight (cwt). The data was summarized by age and sex into 25-pound weight increments by month for all years. Number of head, average weight, average price per hundred weight, average value per head, and added value per head were calculated across all breeds for each weight increment. A weighted average for all sales within the month was used to calculate average weight, price, dollars, and added value for each weight increment for each year. Regression analysis was used to estimate prices when there was no data for a specific weight range for that month. For the 5-year average price, the average for each year was added and divided by the number of years.

Extreme weight ranges were dropped from the data set because of the small number of head in these weight categories. Bulls and others (usually mixed steers and bulls) were excluded. The final data set contains 712,995 head, which includes 52,589 steer calves, 73,208 heifer calves, 332,095 yearling steers, and 255,063 yearling heifers. The 5-year average data are presented by weight and month in tables 1 to 4 for steer calves, heifer calves, yearling steers, and yearling heifers, respectively.

Distribution of Sales by Month and Weight

Approximately 25 percent of the steer calves were sold in October and November, while 24 percent of the heifer calves were sold in January and March (Figure 1). As would be expected, the summer months had the lowest numbers of sales for both steer and heifer calves. The seasonal pattern was similar for yearling steers and heifers, with the highest number of yearlings sold in March, April, and May (Figure 2). The percent of steers sold in the spring was slightly higher than for heifers, while a higher percent of heifers than steers sold during the summer.

Distribution by weight for the two time periods are shown in figures 3 to 6. All four groups, steers, heifers, calves, and yearlings, show a definite shift to higher weight ranges when the 1992 to 1996 time period is compared to 1987 to 1991.

For steer calves, (Figure 3) there was a big drop in percent of calves sold under 450 pounds from the 1987 to 1991 average to the 1992 to 1996 average. The distribution of steer calf sales was very uniform over the 400 to 525 pound range during the 1992 to 1996 time period.

The highest percent of heifer calves sold were in the 451 to 475 pound range for both time periods (Figure 4). However, the number in the higher weight ranges increased during the more recent 5-year time period. The most dramatic change for heifer calves was the large increase in total number of head sold during the second 5 years. Heifer calf sales increased 58 percent, from 46,282 head to 73,208 head, from the first to the second 5-year period.

For yearling steers, the weight distribution shifted more than 25 pounds heavier from the first 5 years to the second 5 years (Figure 5). Approximately 55 percent of the yearling steers weighed more than 776 pounds during the 1992 to 1996 time period versus about 48 percent over 776 pounds during the 1987 to 1991 period.

Comparing yearling heifer sale weights from the two time periods also indicates a trend toward heavier cattle (Figure 6). Sixty-five percent of the yearling heifers weighed more than 700 pounds for 1992 to 1996, compared to only 43 percent weighing more than 700 pounds for the 1987 to 1991 time period.

Effect of Weight on Price

All four weight-sex categories show a trend of decreasing price per pound as weight increases (tables 1-4). However, there are several months that have one or two weight ranges with a higher price than the weight range immediately below it (i.e., heavier cattle sold at a higher price per hundred weight than lighter weight cattle). The higher relative price may be due to quality differences or preferred weight ranges at certain times of the year. For example, the price trend was relatively flat for yearling heifers between 625 and 725 pounds for September, October, November, and December.

Averaged across all weights, the price of steer and heifer calves was $84.46 per hundred weight and $76.91 per hundred weight, respectively, from 1992 to 1996 compared to $95.69 per hundred weight and $88.03 per hundred weight during 1987 to 1991. The 5-year annual average price for calves decreased as weight increased (Figure 7). While average prices from 1992 to 1996 were lower than prices from 1987 to 1991, the effect of weight on price was basically the same during the two time periods for steer calves and slightly less for heifer calves.

Averaged across all weights, the price of yearling steers and heifers was $76.67 per hundred weight and $73.19 per hundred weight, respectively, from 1992 to 1996 compared to $83.63 per hundred weight and $79.79 per hundred weight during 1987 to 1991. Yearling steer and heifer prices decreased as the 5-year average annual weight increased (Figure 8), however, there were times during the 1992 to 1996 time period that heavier weight feeders brought more than lighter weight feeders. The effect of weight on prices are similar for both steers and heifers between the two time periods with two exceptions. Light feeder steers (551 to 600 pounds) did not drop as much as heavier steers from the first time period to the second, and the middle weight range (651 to 750 pounds) for heifers was almost flat for the second time period.

The negative price margin for heavier calves and yearlings is an important factor in determining the value of gain resulting from a production practice that increases the weight of the animal.

Examples

The value of gain from a specific management practice or combination of production practices can be calculated by subtracting the value per head of the lighter weight animal from the value per head of the heavier animal. To calculate the value of gain per hundred weight, divide the value of gain per head by the pounds gained and multiply by 100.

Example 1: Calculate the value of gain of a specific management practice. Assume a base herd weaning and selling weight of 438 pounds per steer in October. The management practice of implanting nursing steer calves twice with Ralgro® added 0.2 pounds of gain per head per

day for 175 days when their dams grazed high endophyte tall fescue pastures[1]. The expected increased production equals 35 pounds (175 × 0.2), and the sale weight would then be 473 pounds. Value of gain per head is calculated in the following manner:

After	473 pounds @ $82.75/cwt[2] =	$391.36
Before	438 pounds @ $84.60/cwt[3] =	$370.54
Gain	35 pounds =	$ 20.82

The value of the extra 35 pounds is $20.82 per head or $59.48 per hundred weight ($20.82 ÷ 35 lbs × 100). Because of the negative price margin (i.e., heavier cattle sell for less per hundred weight than lighter cattle), the value of gain per hundred weight is less than the selling price for the heavier calf. For the management decision to be profitable, the cost of production of the extra gain must be less than the value of gain. In this example, if the cost of implanting is less than $20.82 per head, then this would be a profitable management decision. Therefore, it is important to know the cost of gain as well as to calculate the value of gain as accurately as possible. This same framework could be used to consider the profitability of creep feeding calves. However, if the cost is projected as dollars per pound of gain (e.g., $0.35 per pound), then the relevant value of gain would be $0.5948 per pound (as opposed to $20.82 per head).

Example 2: Calculate the value of gain per head from a combination of management practices. Assume the same base herd as in Example 1. A combination of production practices of the last 20 years — implanting, fly control, high performance bulls, and cross breeding — has been shown to add 100 to 120 pounds to the weaning and selling weight of steers. The value of gain would be:

After	548 pounds @ $77.84/cwt[4] =	$426.56
Before	438 pounds @ $84.60/cwt[3] =	370.54
Gain	110 pounds =	$ 56.02

The value of 110 pounds of gain is $56.02 per head or $50.93 per hundred weight ($56.02 ÷ 110 lbs × 100).

Example 3: Compare the value of gain for steers stocked at 2 acres per head from April 15 until July 15 to value of gain of steers at the same weight and quality stocked at 3 acres per head until August 15.

a. Value of gain for steers stocked at 2 acres per steer until July 15, gain 210 pounds[5].

End July 15	772 pounds @ $76.16/cwt[6] =	$587.95
Begin Apr 15	562 pounds @ $83.33/cwt[7] =	$468.31
Gain	210 pounds =	$119.64

The value of 210 pounds of gain is $119.64 per head or $56.97 per hundred weight ($119.64 ÷ 210 lbs × 100).

b. Value of gain per head for steers stocked at 3 acres per steer until August 15, gain 262 pounds[6].

End Aug. 15	824 pounds @ $76.25/cwt[8] =	$628.30
Begin April 15	562 pounds @ $83.33/cwt[7] =	568.31
Gain	262 pounds =	$159.99

Value of 262 pounds of gain is $159.99 per head or $61.06 per hundred weight ($159.92 ÷ 262 lbs × 100).

In this example, the value of gain per hundred weight is greater for the heavier animal (b) because of the seasonality effect (i.e., the August price is greater than the July price). In addition to calculating the value of gain, the cost of production for each system must be subtracted from the value of gain for that system to determine the most profitable system. When comparing systems that use different land bases, the system that has the highest net value of gain per head may not have the highest net value of gain per acre. When this is true, the producer should maximize the most limited resource. If land is limited, the most profitable system would be to maximize value of gain per acre. When land is not the limiting factor, the most profitable system would be to maximize the value of gain per head.

These systems can also be compared for different rates of gain and different starting weights by using the relevant prices in Table 3. Grazing heifers can be evaluated by using prices from Table 4.

Example 4: Compare the value of gain for steer calves fed to gain 1 pound per day vs. 1.75 pounds per day for 180 days from October 15 to April 15.

a. Value of gain per head for steer calves gaining 1 pound per day, October 15 to April 15.

End Apr. 15	618 pounds @ $81.44/cwt[9] =	$503.30
Begin Oct. 15	438 pounds @ $84.60/cwt[10] =	370.54
Gain	180 pounds =	$132.76

Value of 180 pounds of gain is $132.76 per head or $73.75 per hundred weight ($132.76 ÷ 180 lbs × 100).

b. Value of gain per head for steer calves gaining 1.75 pounds per day, October 15 to April 15.

End Apr. 15	753 pounds @ $73.32/cwt[11] =	$552.10
Begin Oct. 15	438 pounds @ $84.60/cwt[10] =	370.54
Gain	315 pounds =	$181.56

Value of 315 pounds of gain is $181.56 per head or $57.64 per hundred weight ($181.56 ÷ 315 lbs × 100).

Cost of production per head for the 180 days must be subtracted from the value of gain per head to determine the most profitable backgrounding system. Other starting weights and rates of gain can be compared by using prices in tables 1 and 3. Backgrounding heifers can be evaluated by using tables 2 and 4.

Additional management practices and management systems can be evaluated using the same procedure, or the same management practices can be evaluated for different starting weights. The price data can also be used in evaluating the profitability of spring calving vs. fall calving cows using different production levels for different herds. The worksheet on the following page can be used to calculate the value and cost of gain for your farm or ranch. When looking at a management change that will increase selling weight, such as implanting or creep feeding, only the cost associated with that management change is used.

Small weight changes or changes within certain weight ranges may not incur negative price margins in some situations. However, in general, price per hundred weight decreases as selling weight increases. When negative price margins occur, the value of the gain per hundred weight is less than the selling price for the heavier calf. Also, the larger the negative price margin, the lower the value of gain per hundred weight.

Worksheet Calculating Value of Gain and Cost of Gain

Value of Gain

1. After/Ending Weight _____ @ $ _____ /cwt= $ _____
2. Beginning Weight _____ @ $ _____ /cwt = $ _____
3. Gain per head _____ = $ _____

Cost of Gain

4. Labor ..... $ _____
5. Pasture ..... _____
6. Grain ..... _____
7. Hay ..... _____
8. Silage ..... _____
9. Supplement, salt, mineral ..... _____
10. Repairs ..... _____
11. Fuel, oil, hauling ..... _____
12. Veterinary, drugs, supplies ..... _____
13. Marketing ..... _____
14. Utilities & miscellaneous costs ..... _____
15. Interest on operating costs ..... _____
16. Interest on livestock ..... _____
17. Capital costs: Trucks ..... _____

    Machinery ..... _____

    Buildings ..... _____

20. COST OF GAIN PER HEAD ..... $ _____
21. NET VALUE OF GAIN PER HEAD (line 3 – line 20) ..... $ _____

Figure 1.

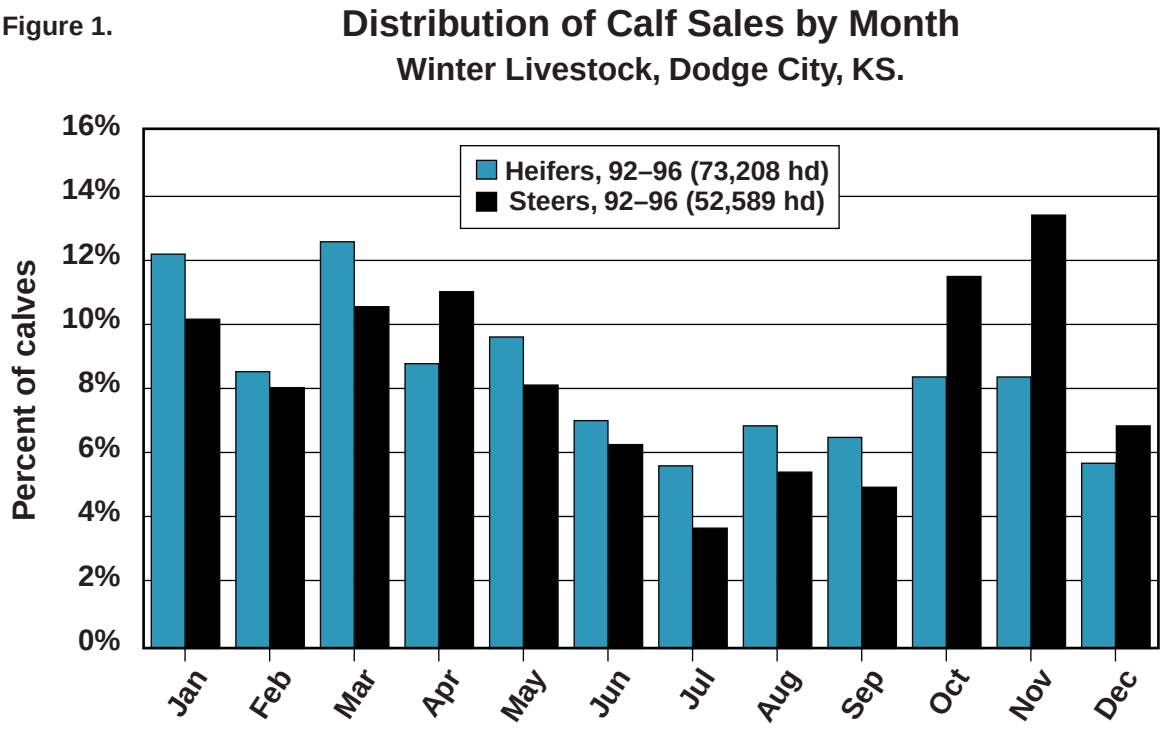

Figure 2.

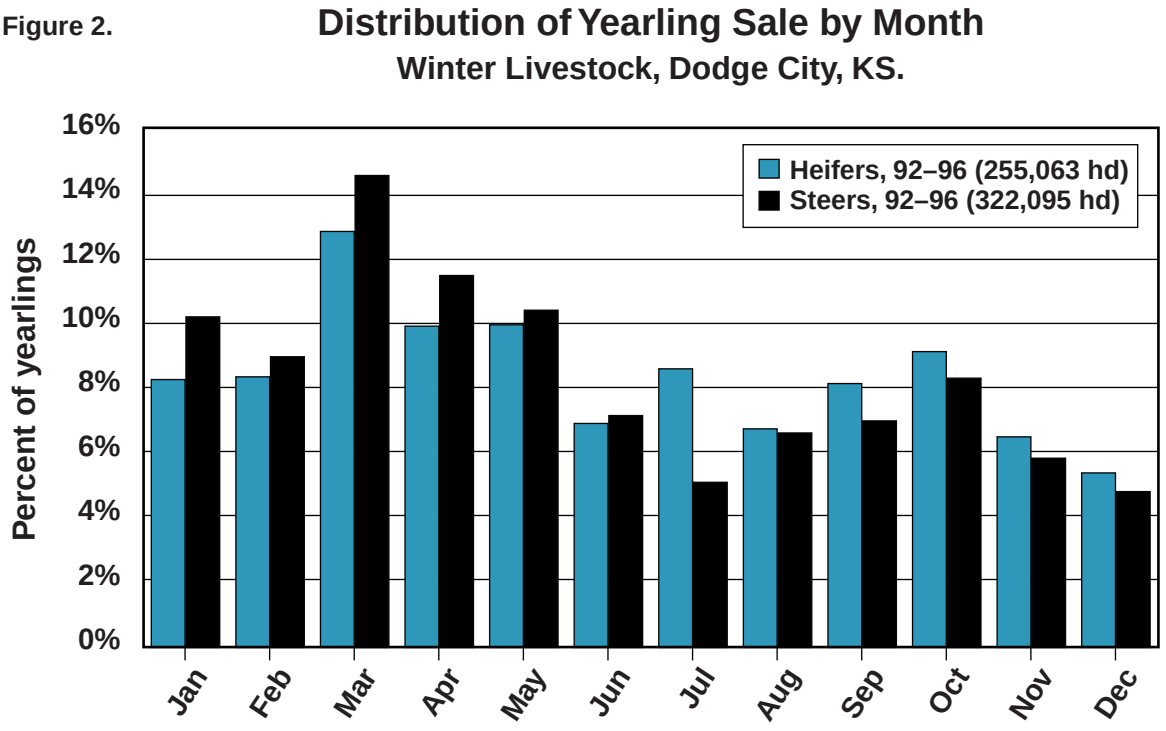

Figure 3.

Distribution of Calf Sales by Weight

Winter Livestock, Dodge City, KS.

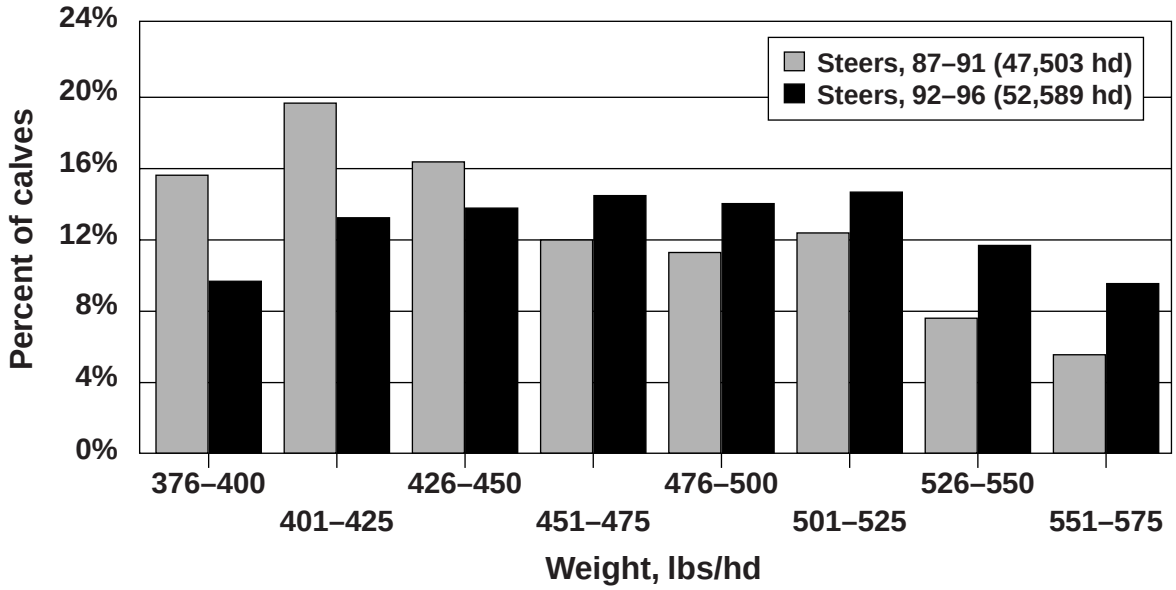

Figure 4.

Distribution of Calf Sales by Weight

Winter Livestock, Dodge City, KS.

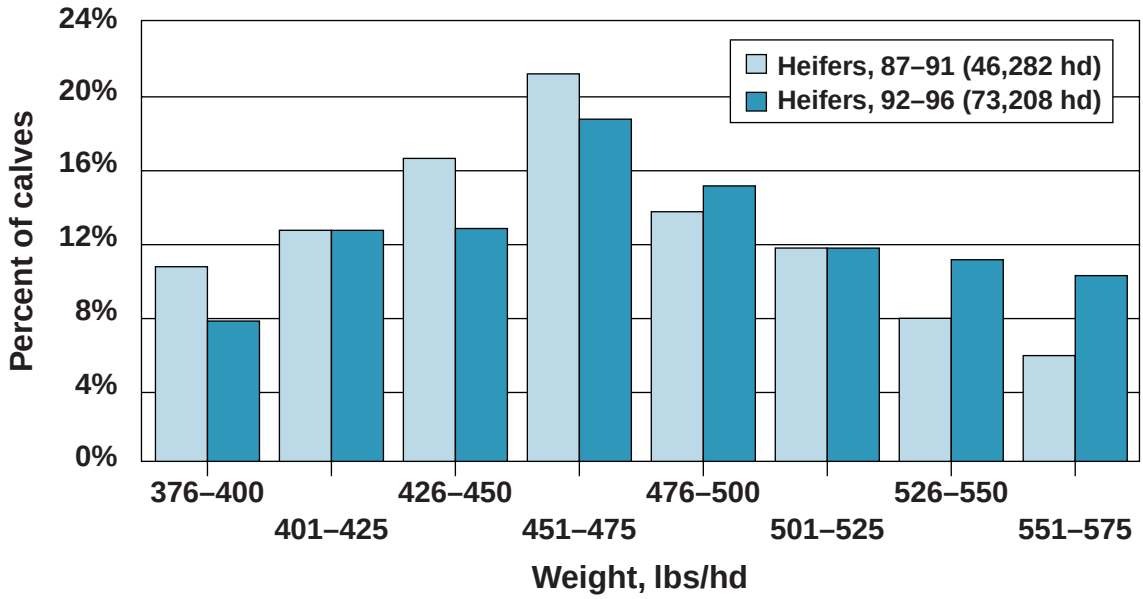

Figure 5.

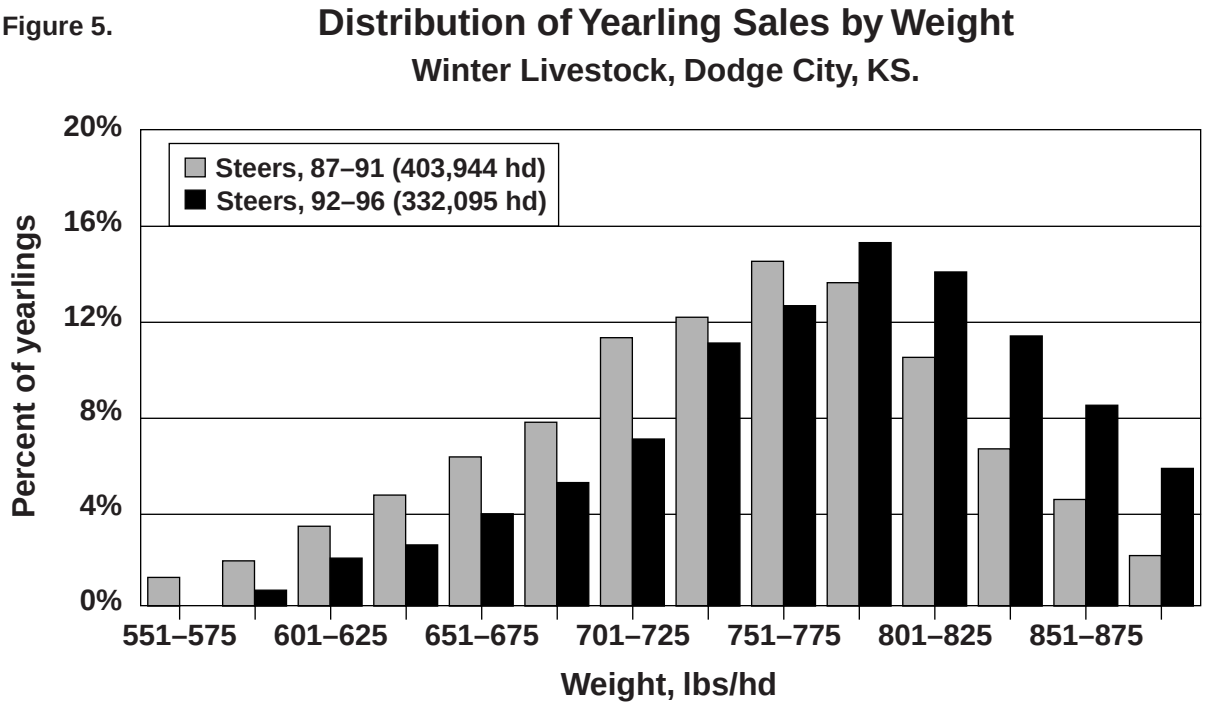

Figure 6.

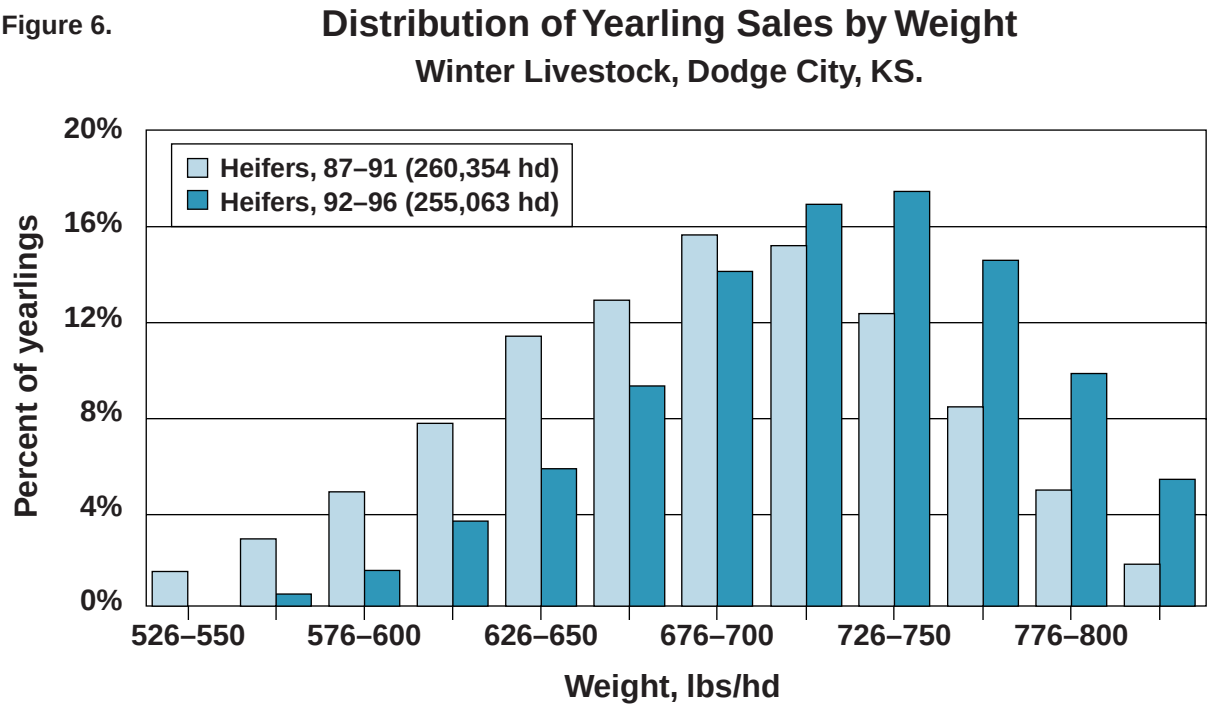

Figure 7.

Average Annual Price of Calves by Weight

Winter Livestock, Dodge City, KS.

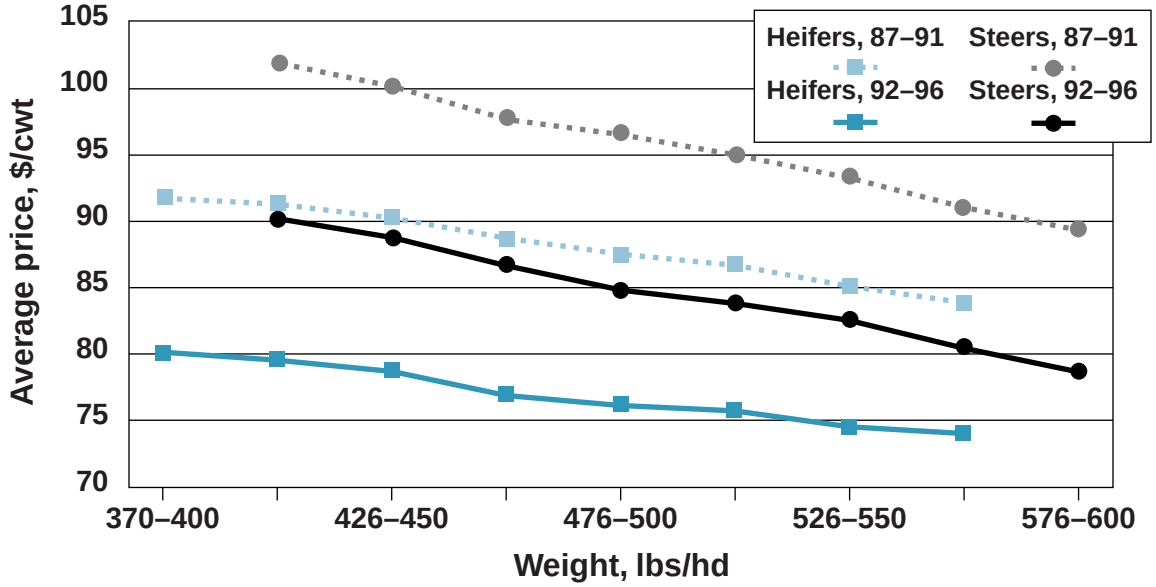

Figure 8.

Average Annual Price of Yearlings by Weight

Winter Livestock, Dodge City, KS.

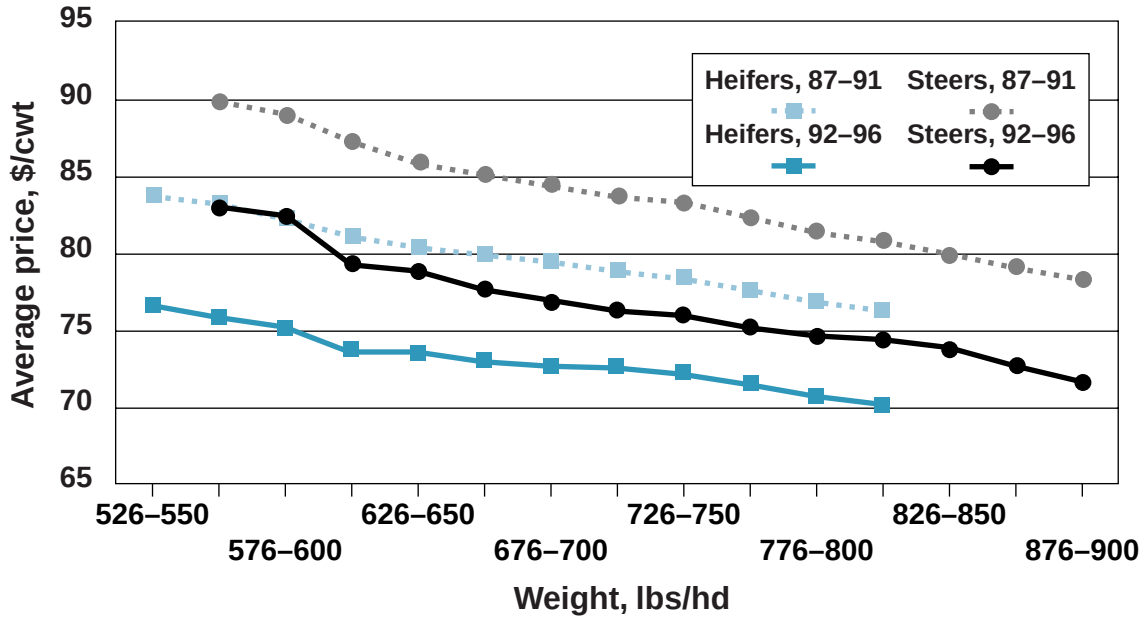

Table 1. Steer Calf Prices and Value by Twenty-five Pound Weight Increments

Year	Month	Weight range	No. Head	Average Weight	Average Price	Average Value/hd	Added Value/hd	Added Value/cwt
19921996	1	401-425	343	414	94.32	390.49		
	1	426-450	685	438	91.35	399.65	9.17	38.98
	1	451-475	493	464	88.90	412.37	12.71	48.25
	1	476-500	675	487	87.46	425.67	13.30	58.24
	1	501-525	849	514	86.95	446.59	20.92	77.72
	1	526-550	940	540	84.56	456.39	9.80	37.51
	1	551-575	743	563	82.90	466.34	9.95	43.71
	1	576-600	595	585	80.48	470.81	4.47	19.88
	2	401-425	420	414	96.34	398.77		
	2	426-450	765	440	91.89	404.40	5.63	21.54
	2	451-475	745	463	90.80	420.08	15.68	69.53
	2	476-500	561	487	88.63	431.95	11.87	48.02
	2	501-525	389	513	86.67	444.30	12.34	48.86
	2	526-550	508	538	84.85	456.53	12.24	48.11
	2	551-575	552	564	82.22	463.62	7.09	27.48
	2	576-600	262	586	79.84	467.69	4.06	18.55
	3	401-425	710	414	98.21	407.02		
	3	426-450	514	436	95.98	418.33	11.31	52.82
	3	451-475	554	463	95.16	440.24	21.91	81.84
	3	476-500	581	487	91.24	444.71	4.47	18.06
	3	501-525	480	511	90.55	462.48	17.77	76.09
	3	526-550	1216	540	87.31	471.27	8.79	30.31
	3	551-575	757	562	85.54	480.71	9.44	42.45
	3	576-600	705	587	82.11	482.16	1.45	5.75
	4	401-425	627	415	90.70	376.59		
	4	426-450	908	440	92.95	408.91	32.31	130.77
	4	451-475	1073	462	91.36	422.13	13.23	59.77
	4	476-500	747	489	88.17	431.28	9.15	33.77
	4	501-525	636	511	88.10	450.38	19.09	86.53
	4	526-550	743	538	86.50	465.62	15.24	56.32
	4	551-575	508	561	84.10	471.96	6.34	27.66
	4	576-600	534	587	82.78	486.01	14.05	54.26
	5	401-425	330	415	91.31	378.81		
	5	426-450	300	440	90.32	397.73	18.92	74.23
	5	451-475	723	462	85.63	395.35	-2.38	-11.13
	5	476-500	559	489	85.01	415.76	20.41	74.67
	5	501-525	451	510	85.48	436.03	20.27	96.18
	5	526-550	774	536	86.06	461.30	25.27	97.6
	5	551-575	549	562	83.03	466.83	5.53	21.09
	5	576-600	560	585	80.79	472.83	6.00	26.04
	6	401-425	286	415	87.39	362.33		
	6	426-450	373	437	88.04	385.05	22.72	100.00
	6	451-475	387	465	87.55	407.04	21.99	79.76
	6	476-500	654	486	85.88	416.94	9.91	48.13
	6	501-525	557	512	81.88	419.51	2.57	9.56
	6	526-550	408	537	82.69	444.28	24.77	99.33
	6	551-575	368	562	81.80	459.98	15.69	62.59
	6	576-600	230	589	78.82	464.34	4.36	16.3

7	401-425	325	412	86.57	356.58		
7	426-450	363	441	85.59	377.15	20.57	71.59
7	451-475	245	467	85.81	400.57	23.41	89.38
7	476-500	393	484	82.58	400.10	-0.47	-2.68
7	501-525	235	513	81.85	419.90	19.80	69.40
7	526-550	118	540	81.40	439.53	19.63	72.88
7	551-575	182	565	78.83	445.59	6.06	23.92
7	576-600	84	587	78.53	461.10	15.51	70.76
8	401-425	270	413	88.61	366.35		
8	426-450	458	434	87.99	382.25	15.90	75.70
8	451-475	421	460	84.35	387.90	5.65	22.24
8	476-500	466	487	83.04	404.04	16.14	60.38
8	501-525	352	516	82.05	423.49	19.45	65.86
8	526-550	305	536	82.73	443.59	20.10	99.99
8	551-575	284	564	79.52	448.45	4.86	17.53
8	576-600	280	586	78.69	460.96	12.51	57.26
9	401-425	558	413	87.46	361.00		
9	426-450	648	438	84.92	372.25	11.25	43.96
9	451-475	428	464	82.06	380.80	8.54	33.29
9	476-500	210	490	80.79	395.46	14.66	57.57
9	501-525	290	513	79.92	409.89	14.43	61.68
9	526-550	190	542	78.94	427.62	17.73	61.57
9	551-575	148	561	78.23	439.18	11.56	58.62
9	576-600	159	590	76.21	449.44	10.26	36.21
10	401-425	425	414	85.83	355.09		
10	426-450	763	438	84.60	370.50	15.41	63.58
10	451-475	756	463	83.84	388.11	17.61	70.56
10	476-500	763	488	81.64	398.73	10.62	41.65
10	501-525	1348	515	80.19	413.00	14.26	53.69
10	526-550	671	536	78.34	419.77	6.77	32.46
10	551-575	699	563	77.34	435.30	15.53	57.61
10	576-600	669	589	75.44	444.00	8.70	33.86
11	401-425	465	417	85.32	355.52		
11	426-450	733	437	86.47	377.68	22.16	110.25
11	451-475	805	465	82.24	382.23	4.54	16.24
11	476-500	1462	489	81.45	397.92	15.69	65.96
11	501-525	1137	512	81.70	418.11	20.19	86.81
11	526-550	1186	539	77.96	420.06	1.95	7.20
11	551-575	823	564	78.06	440.09	20.04	80.19
11	576-600	501	588	77.25	454.01	13.92	58.13
12	401-425	176	414	87.59	362.92		
12	426-450	349	439	82.97	364.59	1.67	6.66
12	451-475	493	465	80.82	375.66	11.06	43.57
12	476-500	463	488	79.52	388.41	12.76	53.99
12	501-525	569	514	80.04	411.20	22.79	89.98
12	526-550	605	537	79.29	426.16	14.96	63.08
12	551-575	541	565	76.42	431.95	5.79	20.86
12	576-600	448	587	76.15	447.01	15.06	69.06

Table 2. Heifer Calf Prices and Value by Twenty-five Pound Weight Increments

Year	Month	Weight range	No. Head	Average Weight	Average Price	Average Value/hd	Added Value/hd	Added Value/cwt
19921996	1	376-400	825	389	84.07	327.09		
	1	401-425	1080	412	82.87	341.60	14.51	62.64
	1	426-450	1006	440	81.92	360.81	19.21	68.09
	1	451-475	1368	461	80.29	370.10	9.29	45.29
	1	476-500	1392	486	79.41	386.24	16.14	63.39
	1	501-525	1072	516	77.57	400.16	13.92	47.25
	1	526-550	1143	538	77.12	414.78	14.62	66.61
	1	551-575	1033	564	76.92	433.67	18.89	72.70
	2	376-400	629	388	83.93	325.78		
	2	401-425	810	414	82.54	341.83	16.05	61.85
	2	426-450	777	439	81.09	355.66	13.83	56.55
	2	451-475	1261	464	80.00	370.98	15.32	60.89
	2	476-500	643	487	79.36	386.16	15.18	66.45
	2	501-525	470	510	78.22	399.32	13.16	55.00
	2	526-550	853	539	76.50	412.26	12.94	45.55
	2	551-575	733	561	76.23	427.47	15.22	69.61
	3	376-400	577	389	85.78	333.46		
	3	401-425	1015	413	84.51	348.86	15.40	63.97
	3	426-450	1058	437	83.91	366.82	17.96	73.78
	3	451-475	1253	462	80.88	373.89	7.07	28.11
	3	476-500	1185	486	79.80	387.91	14.01	58.93
	3	501-525	1345	515	79.06	407.11	19.21	66.46
	3	526-550	1186	539	77.33	416.60	9.48	39.89
	3	551-575	1560	562	76.70	431.02	14.42	62.10
	4	376-400	575	389	82.41	320.98		
	4	401-425	785	414	83.81	346.68	25.71	106.23
	4	426-450	867	435	81.44	354.32	7.63	35.65
	4	451-475	941	464	80.52	373.64	19.33	66.74
	4	476-500	870	488	79.32	387.28	13.64	56.27
	4	501-525	802	513	78.21	401.10	13.82	56.27
	4	526-550	881	538	77.82	418.39	17.29	69.80
	4	551-575	681	560	76.07	426.37	7.97	34.88
	5	376-400	405	388	81.03	314.28		
	5	401-425	600	413	80.93	334.51	20.24	79.41
	5	426-450	965	439	80.22	352.32	17.81	68.77
	5	451-475	1112	464	78.55	364.29	11.97	48.76
	5	476-500	1065	486	77.78	378.38	14.09	61.98
	5	501-525	1013	511	77.47	396.14	17.76	71.52
	5	526-550	1054	541	76.25	412.53	16.39	55.21
	5	551-575	793	565	73.67	416.41	3.88	16.03
	6	376-400	288	388	78.94	306.58		
	6	401-425	530	413	77.46	320.22	13.65	54.50
	6	426-450	705	437	77.70	339.31	19.09	81.89
	6	451-475	1038	462	77.47	357.82	18.51	73.46
	6	476-500	979	489	75.90	371.31	13.49	49.42
	6	501-525	610	510	77.44	394.78	23.46	113.88
	6	526-550	382	538	73.83	397.51	2.73	9.56
	6	551-575	565	564	76.44	430.93	33.42	131.58

7	376-400	310	387	79.08	306.37		
7	401-425	311	412	77.98	321.33	14.96	60.66
7	426-450	632	439	77.40	339.69	18.37	68.52
7	451-475	1149	463	76.21	352.94	13.25	54.60
7	476-500	788	486	74.94	364.41	11.47	49.55
7	501-525	355	509	74.47	378.87	14.46	64.38
7	526-550	350	539	73.62	397.14	18.27	59.46
7	551-575	193	561	73.22	411.07	13.93	63.48
8	376-400	371	389	77.73	302.34		
8	401-425	787	414	78.38	324.63	22.29	88.42
8	426-450	650	438	77.72	340.11	15.49	66.05
8	451-475	1387	462	75.92	350.58	10.47	43.29
8	476-500	500	485	75.92	368.48	17.90	76.02
8	501-525	483	516	74.94	386.35	17.87	59.17
8	526-550	457	536	73.59	394.57	8.21	39.82
8	551-575	383	559	74.68	417.63	23.06	100.01
9	376-400	477	388	76.60	296.89		
9	401-425	879	412	75.58	311.11	14.21	59.11
9	426-450	701	438	75.79	331.59	20.49	79.04
9	451-475	1134	462	73.95	341.80	10.21	41.42
9	476-500	647	487	73.24	356.73	14.93	60.01
9	501-525	405	513	73.53	377.01	20.28	79.00
9	526-550	276	534	72.77	388.63	11.63	54.56
9	551-575	249	562	72.73	408.49	19.85	71.98
10	376-400	430	386	76.86	296.32		
10	401-425	838	415	75.25	311.91	15.59	53.73
10	426-450	816	439	74.22	325.76	13.85	56.83
10	451-475	1092	463	72.40	334.86	9.09	38.47
10	476-500	1093	488	72.71	354.56	19.71	78.61
10	501-525	819	515	72.01	370.59	16.02	59.28
10	526-550	487	536	71.43	382.53	11.95	57.08
10	551-575	568	563	70.67	397.59	15.06	55.67
11	376-400	280	392	76.88	301.07		
11	401-425	1027	413	76.13	314.34	13.27	62.32
11	426-450	667	440	75.63	332.56	18.22	67.88
11	451-475	974	463	73.20	339.13	6.57	27.85
11	476-500	1271	488	73.15	357.09	17.96	72.31
11	501-525	796	512	74.18	379.79	22.70	95.16
11	526-550	800	536	73.13	392.16	12.37	51.03
11	551-575	355	562	70.93	398.80	6.63	25.55
12	376-400	627	389	75.24	292.98		
12	401-425	470	412	76.95	317.21	24.23	106.10
12	426-450	381	439	75.81	333.03	15.82	58.38
12	451-475	914	465	72.38	336.57	3.54	13.77
12	476-500	558	486	72.15	350.91	14.34	67.17
12	501-525	502	512	71.66	366.56	15.65	62.20
12	526-550	341	538	71.46	384.19	17.62	67.52
12	551-575	448	562	71.96	404.61	20.42	82.95

Table 3. Yearling Steer Prices and Value by Twenty-five Pound Weight Increments

Year	Month	Weight range	No. Head	Average Weight	Average Price	Average Value/hd	Added Value/hd	Added Value/cwt
19921996	1	551-575	24	562	80.81	454.47		
	1	576-600	341	589	82.60	486.23	31.76	120.99
	1	601-625	890	615	80.35	493.77	7.54	29.11
	1	626-650	1206	636	79.60	506.46	12.68	58.46
	1	651-675	1771	664	79.63	528.82	22.37	80.27
	1	676-700	2197	688	78.96	543.31	14.49	60.45
	1	701-725	2422	713	78.63	560.89	17.58	69.63
	1	726-750	4311	738	78.37	578.75	17.86	71.09
	1	751-775	4811	763	77.50	591.62	12.87	51.57
	1	776-800	4805	787	77.16	607.52	15.89	66.45
	1	801-825	4348	813	76.77	623.73	16.21	64.42
	1	826-850	3367	838	76.48	640.79	17.06	67.18
	1	851-875	2094	859	75.60	649.71	8.93	41.56
	1	876-900	787	886	74.92	663.41	13.70	52.40
	2	551-575	37	565	83.04	469.52		
	2	576-600	207	590	81.83	483.08	13.56	54.37
	2	601-625	804	613	78.58	481.66	-1.43	-6.30
	2	626-650	610	638	79.06	504.39	22.73	90.99
	2	651-675	1131	663	78.13	517.69	13.30	53.96
	2	676-700	1890	689	77.03	531.08	13.39	49.85
	2	701-725	2271	714	76.70	547.96	16.88	67.62
	2	726-750	2992	738	76.82	566.66	18.71	80.73
	2	751-775	3747	763	76.28	582.19	15.52	60.61
	2	776-800	4803	787	75.69	595.43	13.25	56.49
	2	801-825	4834	813	75.21	611.16	15.72	60.69
	2	826-850	2771	837	74.86	626.34	15.18	63.01
	2	851-875	1651	863	73.41	633.26	6.92	26.62
	2	876-900	1602	886	72.88	645.85	12.59	53.69
	3	551-575	19	565	81.15	458.15		
	3	576-600	554	591	82.88	489.79	31.65	120.19
	3	601-625	1297	614	80.44	493.94	4.15	17.96
	3	626-650	1262	637	79.90	509.05	15.10	65.43
	3	651-675	2244	664	77.49	514.68	5.63	20.84
	3	676-700	3258	688	77.05	530.33	15.65	64.92
	3	701-725	3591	713	76.04	542.49	12.16	48.45
	3	726-750	4235	740	75.58	559.09	16.60	63.08
	3	751-775	5862	764	74.46	568.85	9.77	40.15
	3	776-800	8383	788	73.82	581.87	13.02	53.79
	3	801-825	5793	812	73.46	596.84	14.96	61.79
	3	826-850	4616	838	72.92	610.81	13.97	55.33
	3	851-875	3973	861	71.96	619.89	9.09	38.24
	3	876-900	3210	889	71.13	632.25	12.36	45.11
	4	551-575	73	564	83.33	469.94		
	4	576-600	295	586	86.25	505.86	35.92	159.44
	4	601-625	995	613	81.44	499.51	-6.36	-23.66
	4	626-650	1311	637	79.39	506.05	6.55	27.19
	4	651-675	1468	663	76.69	508.33	2.28	8.96
	4	676-700	1678	687	75.53	518.92	10.59	43.86
	4	701-725	2624	712	74.90	533.28	14.36	57.42
	4	726-750	3187	740	73.78	545.90	12.61	45.33
	4	751-775	4239	764	72.87	556.74	10.85	44.89
	4	776-800	5330	789	71.89	567.03	10.29	41.55
	4	801-825	5961	813	71.45	580.89	13.86	57.11
	4	826-850	4898	837	70.76	592.23	11.34	47.55
	4	851-875	3416	863	70.34	607.06	14.82	56.83
	4	876-900	2330	889	69.01	613.20	6.15	24.01

5	551-575	11	564	80.87	456.29		
5	576-600	120	591	82.66	488.15	31.86	121.02
5	601-625	879	615	80.61	495.38	7.23	30.14
5	626-650	1005	639	79.61	508.59	13.21	54.31
5	651-675	1198	665	76.94	511.35	2.76	10.72
5	676-700	1343	690	75.74	522.52	11.17	44.19
5	701-725	2028	712	74.41	529.47	6.94	32.00
5	726-750	3428	739	73.50	542.80	13.33	49.51
5	751-775	4354	764	72.82	556.24	13.45	53.12
5	776-800	4922	789	71.95	567.34	11.10	45.00
5	801-825	4932	813	71.14	578.10	10.76	44.66
5	826-850	4041	838	70.44	590.44	12.34	48.15
5	851-875	3655	863	69.46	599.58	9.14	36.49
5	876-900	2375	887	68.12	604.28	4.70	19.68
6	551-575	0	563	82.34	463.59		
6	576-600	34	589	80.99	477.00	13.42	51.60
6	601-625	341	612	81.09	496.23	19.23	83.70
6	626-650	412	637	79.15	503.85	7.63	31.01
6	651-675	598	663	78.09	517.55	13.69	52.21
6	676-700	668	690	75.49	520.80	3.25	11.99
6	701-725	1344	716	76.40	546.73	25.93	100.83
6	726-750	2627	737	76.60	564.82	18.09	83.19
6	751-775	2863	764	74.97	572.89	8.07	30.13
6	776-800	3559	788	74.35	586.06	13.17	54.77
6	801-825	3227	812	74.32	603.73	17.68	73.10
6	826-850	3220	839	73.80	619.43	15.69	58.17
6	851-875	2814	863	71.69	618.91	-0.51	-2.13
6	876-900	1733	887	71.69	636.21	17.30	71.81
7	551-575	7	563	84.54	476.14		
7	576-600	6	590	81.81	483.02	6.88	25.31
7	601-625	327	614	77.43	475.46	-7.56	-31.94
7	626-650	296	637	77.51	493.36	17.90	79.72
7	651-675	466	665	77.71	516.57	23.21	82.20
7	676-700	660	687	78.31	537.91	21.34	96.27
7	701-725	1425	715	76.55	547.05	9.13	32.99
7	726-750	2168	739	77.30	570.94	23.90	99.63
7	751-775	1903	765	76.58	586.05	15.11	56.75
7	776-800	2757	788	75.75	596.65	10.61	47.21
7	801-825	2680	813	75.61	614.53	17.87	71.27
7	826-850	1880	838	75.41	631.57	17.04	68.72
7	851-875	1562	862	74.53	642.62	11.05	44.75
7	876-900	780	883	72.35	639.10	-3.51	-16.64
8	551-575	0	563	84.45	475.46		
8	576-600	42	588	83.91	493.68	18.22	71.93
8	601-625	98	615	79.65	489.93	-3.75	-14.01
8	626-650	447	637	80.98	515.77	25.84	118.64
8	651-675	644	664	78.37	520.04	4.28	16.03
8	676-700	999	690	77.67	536.04	16.00	60.26
8	701-725	1481	712	77.54	551.94	15.90	73.40
8	726-750	2549	737	77.24	569.53	17.59	68.74
8	751-775	2927	765	76.56	585.50	15.97	58.28
8	776-800	3282	788	76.22	600.48	14.98	64.91
8	801-825	3011	813	76.31	620.52	20.05	79.21
8	826-850	2751	838	76.19	638.21	17.69	72.33
8	851-875	2088	860	74.95	644.39	6.18	27.97
8	876-900	1728	887	74.06	657.04	12.65	45.97

9	551-575	0	563	83.55	470.41		
9	576-600	9	590	82.88	488.98	18.57	68.78
9	601-625	287	611	79.69	486.61	-2.38	-11.54
9	626-650	333	637	78.02	497.33	10.73	39.91
9	651-675	552	665	77.58	515.83	18.50	67.55
9	676-700	1091	688	76.83	528.57	12.73	55.12
9	701-725	1110	717	76.24	546.30	17.73	62.09
9	726-750	2715	739	75.64	558.88	12.58	56.27
9	751-775	3140	763	75.67	577.03	18.15	76.76
9	776-800	3077	789	74.94	590.97	13.94	53.55
9	801-825	3280	813	74.89	608.77	17.80	73.13
9	826-850	3079	838	74.03	620.63	11.86	46.55
9	851-875	2781	864	72.54	626.83	6.20	24.12
9	876-900	1690	889	72.48	644.15	17.31	70.23
10	551-575	0	563	82.77	465.98		
10	576-600	83	591	80.11	473.27	7.30	26.24
10	601-625	83	614	76.55	469.82	-3.46	-15.05
10	626-650	341	639	77.48	495.29	25.47	100.01
10	651-675	1030	664	77.40	514.04	18.75	75.37
10	676-700	1224	688	76.13	523.90	9.86	41.02
10	701-725	1866	713	76.21	543.28	19.39	78.24
10	726-750	4237	737	75.54	557.05	13.77	56.08
10	751-775	3371	765	74.59	570.42	13.37	49.10
10	776-800	4428	789	74.29	585.84	15.41	64.46
10	801-825	3842	810	74.54	604.02	18.18	83.52
10	826-850	3477	838	73.52	616.00	11.98	43.62
10	851-875	2007	860	72.81	626.27	10.27	46.05
10	876-900	1695	886	71.11	630.33	4.06	15.48
11	551-575	0	563	83.23	468.57		
11	576-600	79	587	81.22	476.75	8.18	34.08
11	601-625	161	614	77.48	475.91	-0.84	-3.09
11	626-650	450	641	77.65	497.43	21.52	81.73
11	651-675	643	669	77.19	516.40	18.98	66.78
11	676-700	877	692	76.65	530.21	13.81	60.68
11	701-725	1367	713	76.23	543.23	13.02	62.37
11	726-750	2561	738	76.10	561.35	18.12	72.51
11	751-775	3056	764	75.42	576.07	14.72	56.25
11	776-800	2960	788	74.91	590.30	14.23	58.69
11	801-825	3000	813	74.77	607.70	17.40	70.29
11	826-850	2273	837	74.79	625.67	17.97	75.70
11	851-875	1078	860	74.54	641.25	15.58	65.63
11	876-900	908	887	72.55	643.54	2.29	8.55
12	551-575	0	563	83.33	469.15		
12	576-600	58	588	81.32	478.37	9.22	36.50
12	601-625	149	613	77.52	475.58	-2.79	-11.07
12	626-650	401	639	76.18	487.15	11.58	44.47
12	651-675	1008	662	76.70	507.66	20.50	91.77
12	676-700	1009	690	76.58	528.07	20.42	73.54
12	701-725	1649	715	76.30	545.35	17.28	68.72
12	726-750	1682	739	76.34	564.11	18.76	77.51
12	751-775	1931	762	75.76	577.60	13.49	57.46
12	776-800	2835	788	75.61	595.69	18.09	71.15
12	801-825	2018	813	75.51	614.25	18.56	72.38
12	826-850	1708	835	74.91	625.84	11.59	52.80
12	851-875	1237	862	73.64	634.91	9.08	33.95
12	876-900	648	887	73.16	649.27	14.35	56.85

Table 4. Yearling Heifer Prices and Value by Twenty-five Pound Weight Increments

Year	Month	Weight range	No. Head	Average Weight	Average Price	Average Value/hd	Added Value/hd	Added Value/cwt
19921996	1	526-550	12	536	75.39	404.38		
	1	551-575	54	563	75.78	426.93	22.56	83.54
	1	576-600	414	597	77.19	460.59	33.66	101.12
	1	601-625	813	611	76.12	464.75	4.16	30.01
	1	626-650	1286	639	75.85	485.03	20.28	70.11
	1	651-675	2765	662	75.73	501.60	16.56	72.54
	1	676-700	2863	691	75.39	520.70	19.10	67.38
	1	701-725	3589	712	75.53	537.63	16.93	80.16
	1	726-750	3770	738	75.32	556.17	18.54	69.62
	1	751-775	2613	761	74.74	568.85	12.68	55.95
	1	776-800	1645	787	74.15	583.58	14.73	56.74
	1	801-825	802	811	73.25	593.97	10.38	43.49
	2	526-550	0	538	76.78	413.07		
	2	551-575	358	565	76.91	434.81	21.74	79.46
	2	576-600	340	592	76.61	453.42	18.61	70.33
	2	601-625	1185	614	74.88	459.42	5.99	27.61
	2	626-650	1261	639	75.35	481.71	22.29	86.53
	2	651-675	2226	666	74.44	495.51	13.80	52.45
	2	676-700	3925	690	73.89	509.58	14.07	58.44
	2	701-725	3438	712	73.57	524.16	14.58	64.00
	2	726-750	2877	738	73.57	542.84	18.68	73.49
	2	751-775	2834	761	72.70	553.05	10.22	44.62
	2	776-800	1644	790	71.76	566.64	13.59	47.01
	2	801-825	945	811	72.02	584.23	17.58	81.60
	3	526-550	19	537	75.98	408.31		
	3	551-575	149	567	76.73	434.98	26.66	90.48
	3	576-600	1071	593	74.58	442.31	7.33	27.99
	3	601-625	1771	613	74.05	453.74	11.43	58.08
	3	626-650	2782	639	72.94	465.91	12.18	46.84
	3	651-675	3017	665	72.31	480.76	14.85	56.81
	3	676-700	3776	690	72.19	497.77	17.01	68.92
	3	701-725	5352	713	72.05	513.45	15.68	68.00
	3	726-750	5264	739	71.51	528.32	14.87	56.81
	3	751-775	5369	763	71.27	544.03	15.71	63.90
	3	776-800	2457	788	70.93	559.12	15.09	60.69
	3	801-825	1600	811	70.24	569.53	10.41	46.09
	4	526-550	0	538	74.45	400.52		
	4	551-575	202	568	75.39	428.49	27.97	92.09
	4	576-600	269	590	75.65	446.04	17.55	82.51
	4	601-625	1145	612	72.17	441.49	-4.55	-20.57
	4	626-650	1323	639	72.16	460.96	19.47	72.06
	4	651-675	2012	663	69.80	463.04	2.08	8.46
	4	676-700	2870	688	70.21	483.06	20.02	81.08
	4	701-725	3526	712	70.45	501.50	18.44	77.32
	4	726-750	5090	737	69.90	515.39	13.89	54.55
	4	751-775	3434	762	68.64	522.87	7.48	30.65
	4	776-800	3387	787	67.79	533.35	10.48	41.94
	4	801-825	1774	810	67.79	549.42	16.07	67.79

5	526-550	0	538	74.42	400.40		
5	551-575	36	566	74.23	420.13	19.73	70.45
5	576-600	428	590	74.22	438.20	18.07	73.97
5	601-625	1142	614	72.15	442.91	4.71	20.07
5	626-650	1164	638	72.00	459.40	16.49	68.18
5	651-675	1690	665	70.63	469.89	10.48	38.58
5	676-700	2955	689	70.14	483.15	13.27	56.23
5	701-725	3823	713	69.83	497.72	14.57	60.98
5	726-750	4591	738	69.04	509.72	12.00	46.90
5	751-775	4372	763	68.25	520.44	10.72	44.34
5	776-800	2848	788	67.67	533.30	12.85	50.16
5	801-825	2021	811	66.60	540.07	6.77	29.72
6	526-550	0	538	75.84	408.02		
6	551-575	11	565	73.95	418.14	10.12	36.93
6	576-600	174	592	73.50	434.83	16.70	63.76
6	601-625	557	611	73.03	446.43	11.60	58.85
6	626-650	965	640	73.55	470.72	24.29	84.66
6	651-675	1376	661	72.76	480.88	10.16	48.52
6	676-700	2707	687	71.95	494.18	13.29	51.25
6	701-725	2888	715	71.98	514.39	20.21	72.70
6	726-750	2523	740	71.42	528.57	14.19	55.88
6	751-775	2585	764	70.42	537.73	9.15	38.86
6	776-800	2502	788	69.99	551.72	14.00	56.63
6	801-825	1182	813	69.15	562.18	10.46	42.46
7	526-550	0	538	77.67	417.87		
7	551-575	75	564	77.80	439.00	21.13	80.40
7	576-600	247	587	75.98	446.35	7.35	31.73
7	601-625	543	612	74.06	453.47	7.11	28.62
7	626-650	1586	638	73.63	469.51	16.04	63.27
7	651-675	1364	664	73.22	486.12	16.61	63.26
7	676-700	3990	686	73.85	506.51	20.39	93.05
7	701-725	4021	712	73.66	524.81	18.30	68.79
7	726-750	3979	737	73.14	539.37	14.56	58.10
7	751-775	2981	764	72.78	556.03	16.66	62.93
7	776-800	1963	788	71.62	564.38	8.35	34.77
7	801-825	913	813	71.76	583.54	19.16	75.92
8	526-550	0	538	78.23	420.87		
8	551-575	106	568	76.80	436.07	15.21	51.03
8	576-600	103	591	76.39	451.24	15.16	66.14
8	601-625	556	609	74.57	454.35	3.12	16.77
8	626-650	866	637	74.73	476.38	22.03	78.18
8	651-675	1422	665	73.89	491.33	14.94	54.35
8	676-700	2044	689	73.89	509.27	17.94	73.94
8	701-725	2904	714	73.81	526.70	17.43	71.67
8	726-750	3598	739	73.26	541.71	15.01	58.09
8	751-775	2475	762	72.82	555.23	13.52	58.57
8	776-800	2000	786	72.38	569.02	13.79	58.30
8	801-825	961	814	71.91	585.28	16.26	58.48

9	526-550	0	538	77.51	417.00		
9	551-575	73	565	76.60	433.08	16.08	58.69
9	576-600	352	593	74.43	441.65	8.57	30.60
9	601-625	475	614	72.81	446.98	5.32	26.01
9	626-650	1121	642	72.94	467.88	20.90	75.67
9	651-675	2353	664	73.43	487.76	19.88	87.37
9	676-700	3250	690	73.16	504.84	17.08	66.19
9	701-725	3941	712	73.26	521.70	16.86	76.38
9	726-750	3114	739	72.89	538.73	17.03	63.08
9	751-775	2702	762	71.84	547.25	8.51	37.58
9	776-800	2120	788	70.84	557.92	10.67	41.46
9	801-825	1130	812	70.69	574.03	16.11	65.84
10	526-550	26	539	77.01	415.37		
10	551-575	114	565	74.33	420.12	4.75	18.40
10	576-600	110	589	74.41	437.96	17.84	76.25
10	601-625	305	613	73.67	451.90	13.94	56.24
10	626-650	885	642	72.53	465.90	14.00	48.28
10	651-675	2911	664	72.51	481.28	15.38	72.11
10	676-700	3312	689	72.15	496.83	15.55	62.36
10	701-725	4043	714	71.68	511.69	14.86	58.97
10	726-750	3871	738	71.55	528.29	16.60	67.62
10	751-775	3693	762	71.13	542.21	13.92	58.27
10	776-800	2193	788	70.16	552.53	10.32	40.92
10	801-825	1745	809	69.77	564.24	11.70	55.24
11	526-550	0	538	77.78	418.45		
11	551-575	0	563	77.06	433.85	15.40	61.59
11	576-600	63	590	75.80	447.44	13.59	49.74
11	601-625	207	615	72.83	447.64	0.20	0.83
11	626-650	761	639	73.66	470.34	22.70	94.80
11	651-675	1141	665	73.35	487.46	17.12	65.87
11	676-700	2400	690	73.15	504.98	17.52	68.08
11	701-725	3191	713	73.57	524.73	19.75	86.18
11	726-750	3815	738	73.09	539.39	14.66	59.08
11	751-775	2417	762	72.61	553.19	13.80	57.89
11	776-800	1920	788	71.74	565.20	12.01	46.21
11	801-825	729	811	71.27	578.13	12.93	55.32
12	526-550	0	538	77.33	416.03		
12	551-575	54	563	73.47	413.87	-2.15	-8.50
12	576-600	154	585	72.74	425.32	11.45	53.64
12	601-625	513	614	74.21	455.48	30.16	103.75
12	626-650	951	637	72.49	462.06	6.58	27.87
12	651-675	1477	665	73.74	490.01	27.95	102.99
12	676-700	1987	690	73.20	504.95	14.93	58.97
12	701-725	2838	714	73.03	521.15	16.21	68.28
12	726-750	2546	738	73.20	540.43	19.28	77.94
12	751-775	2040	764	72.75	555.98	15.54	60.04
12	776-800	861	788	71.27	561.67	5.69	23.90
12	801-825	604	816	70.08	571.90	10.23	36.54

[1]Unpublished research in Southeast Kansas.
[2]Table 1, Steer Calves, average of weight ranges 451 to 475 and 476 to 500 pounds for October.
[3]Table 1, Steer Calves, weight range 426 to 450 pounds for October.
[4]Table 1, Steer Calves, average of weight ranges 526 to 500 and 551 to 575 pounds for October.
[5]Gain was taken from three-year average data from Bressner Pasture Study, Woodson County, adjusted by 2 percent shrink.
[6]Table 3, Yearling Steers, average of weight ranges 751 to 776 and 776 to 800 pounds for July.
[7]Table 3, Yearling Steers, weight ranges 551 to 575 pounds for April.
[8]Table 3, Yearling Steers, average of weight ranges 801 to 825 and 826 to 850 pounds for August.
[9]Table 3, Yearling Steers, weight range 601 to 625 pounds for April.
[10]Table 1, Steer Calves, weight range 426 to 450 pounds for October.
[11]Table 3, Yearling Steers, average of weight ranges 726 to 750 and 751 to 775 pounds for April.

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