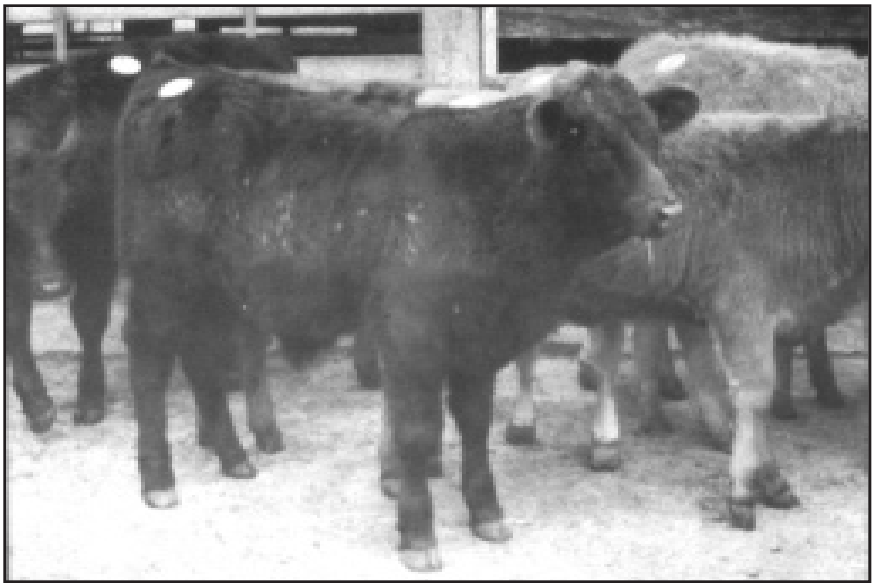
Effect of Selected Characteristics on the Sale Price of Feeder Cattle in Eastern Oklahoma



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Effect of Selected Characteristics on the Sale Price of Feeder Cattle in Eastern Oklahoma

(1997 &1999 studies)

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Introduction

The most prominent segment of the cattle industry in eastern Oklahoma is the cow/calf segment. Almost two-thirds of the state's cowherd is found in the eastern one-half of the state. In addition, many stocker cattle graze warm season forages in this region.

Calves produced by cattle operations in eastern Oklahoma are primarily sold at weaning in local auctions to order buyers filling orders for customers. The price of these cattle is affected by conditions of supply and demand including: consumer beef demand, feedlot occupancy, feed prices, stage of the cattle cycle, forage availability and weather forecasts, value of added gain, futures prices, etc. The profitability of cow/calf producers is affected by these factors but individual cattlemen can do little to influence the effect of these national trends on the price received for calves sold any particular day.

There are other factors peculiar to the cattle that can be controlled by the producer that also have significant effects on prices. These factors include weight, breed character, gender, frame, muscling, gut fill, body condition, number and uniformity of cattle in a sale lot, and health.

These characteristics have an effect on future performance and profitability. For instance, Schroeder et al. (1988) reported reductions in animal performance due to castration of .35 lb/day for 96 d and increased morbidity from 15% for steers to 36% for castrated animals. Reductions in animal performance due to dehorning averaged .12 lb/day. Smith et al. (1996) observed lesser effects on animal performance due to castration (.15 lb/day) and dehorning (.12 lb/day) of fresh calves purchased at local auction markets.

Buyers appraise individual characteristics as predictors of quality and animal performance and adjust bids accordingly. Previous work by Kansas (Schroeder et al., 1988 and Sartwelle et al., 1996), Tennessee (Rawls et al., 1995) and Georgia (Brown and Morgan, 1996) workers found significant differences in the prices received for cattle dependent on characteristics also observed in this study. The purpose of these studies was to determine the extent to which selected characteristics of feeder cattle affect their sale price at auction in eastern Oklahoma.

How the Studies were Conducted

A survey instrument was developed based on previous work by Kansas State University workers (Schroeder, 1988). A training session was conducted at an auction facility in McAlester, OK, for personnel who were to grade the cattle in the 1997 study. Another training for 1999 was held at the Tulsa Stockyards. The purpose of the training was to coordinate the grading and classifying of feeder cattle characteristics to be observed by the graders.

Oklahoma State University County Extension Agriculture Educators observed and recorded the characteristics of 15,473 sale lots of feeder cattle in 1997 and 11,135 sale lots in 1999. Over 62,000 total head were included in the surveys with each having about half of the cattle. Surveyed cattle were sold in 18 different sale barns throughout eastern Oklahoma and Oklahoma City. Three of the locations were included in the 1999 study only. Locations of the livestock auctions from which data were collected are listed in the acknowledgement. Data were collected from multiple visits to each sale barn during four weeks in October, 1997 and April, 1999.

Data recorded on each lot of cattle sold included weight, selling price, gender, breed, horns, frame, muscle thickness, gut fill, body condition, health, number of cattle and their uniformity in multiple head groups. The levels of each category are listed in Table 1.

Data were analyzed for steers and heifers separately. Bulls were excluded from data analyses except for testing the effect of gender on sale price. Least squares means were calculated using General Linear Models Procedure of SAS (1985).

Results and Discussion

Generally, results from the two studies are very much alike. Some differences do exist, but for the most part one can say that similar discounts, or

Table 1. Descriptions of feeder cattle characteristics.

Characteristic	*Description*
Sex	Steer, bull, heifer
Breed	Hereford, Angus, white face (English, black or red), black exotics, other exotics, less than 1/4 Brahman, 1/4 or more Brahman, dairy, Longhorn, mixed breed sale lots
Horns	Horns, polled or dehorned, mixed sale lots
Frame	Large, upper medium, lower medium, small
Muscle	Heavily muscled, medium muscled, light muscled
Fill	Gaunt, shrunk, average fill, full, tanked
Condition	Very thin, thin, average condition, fleshy, fat
Uniformity of group	Uniform, not uniform
Health	Dead hair or mud, stale, sick, bad eye(s), lame or lumps, healthy

premiums, in the two studies are received by cattle for variations from a market preference. Between studies, these discounts and premiums were mostly in the same direction but varied somewhat in their amount.

The studies were conducted in different years and different seasons within the year. However, no effort was made to statistically compare differences that may exist in time or season.

Gender

Steers made up 42% and 40% of the lots sold in 1997 and 1999, respectively. Heifers accounted for 42% and 45% in 1997 and 1999, respectively (Table 2). The lower proportion of heifers sold relative to the total of steers and bulls may be indicative of the number of females retained by producers as replacements for the cowherd. Steers sold for an average $76.96/cwt and $80.23/cwt in 1997 and 1999, respectively. Bulls sold for $3.56/cwt and $2.24/cwt less than that of steers, and heifers at $10.56/cwt and $7.43/cwt less in 1997 and 1999, respectively. The prices received for bulls are presumably lower due to the reduced animal performance experienced with these animals subsequent to castration. The price difference for heifers relative to steers reflects problems characteristic to females including: reduced daily gain, lower feed efficiency, estrus, unexpected pregnancies and subsequent difficult births. The price may also reflect a generally lower quality animal in that the better heifers are retained as replacement females for the cowherd.

Table 2. Effect of gender on sale price of feeder cattle in Eastern Oklahoma auctions.

Gender	*No. Lots (%)*	*Price difference due to sex, $/cwt*	*No. Lots (%)*	*Price difference due to sex, $/cwt*
	October, 1997		*April, 1999*	
Steer	6496 (42)	Base[a]	4464 (40)	Base[a]
Bull	2505 (16)	-3.56[b]	1598 (14)	-2.24[b]
Heifer	6438 (42)	-10.56[c]	5031 (45)	-7.43[c]
Mixed lots	34 (0.2)	-4.02[b]	42 (0.3)	0.26[ab]

[a,b,c]Values with differing superscripts in a column differ (P<.05).
Base prices: October, 1997 = $76.96; April, 1999 = $80.23.

Sale Weight

Most cattle had sale weights less than 600 pounds (Table 3). Approximately 86% of the total number of sale lots weighed less than 600 lb in the 1997 study, and over 70% weighed less than 600 lb in the 1999 study. As body weight increased, sale price decreased for both steers and heifers. Although steers sold at a higher price per cwt than heifers, the price decline due to heavier body weight was greater for steers in both years. The calculated value of added gain averaged across weight groups to 899 lb in 1997 was $53.93/cwt and $49.58/cwt for steers and heifers, respectively. The value of added gain was similar at approximately $45/cwt for steers and heifers in spring, 1999.

Breed Type

Factors affecting prices for different breeds reflect buyer perceptions relative to growth rate, reproductive traits, carcass traits and other factors that may affect animal performance and producer profitability. Cattle classified as Angus were used as the base to calculate price discounts or premiums for other breed classifications. Relative to cattle perceived as Angus by the graders, black exotics and other exotics sold at greater prices for both steers and heifers (Table 4). Dairy and Longhorn steers and heifers sold at very large discounts relative to Angus; over $20/cwt for steers in both studies. Hereford steers and heifers were discounted relative to Angus in both studies. Steers with less than 1/4 Brahman influence sold at a slight discount, $1.91/

Table 3. Effect of body weight on sale price of feeder cattle in Eastern Oklahoma auctions.

Weight, lbs.	*No. Lots (%)*	*Price difference due to weight, $/cwt*	*No. Lots (%)*	*Price difference due to weight, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
300-399	1498 (23.1)	Base[a]	761 (17.1)	Base[a]
400-499	2321 (35.7)	-5.04[b]	1358 (30.0)	-4.96[b]
500-599	1756 (27.0)	-11.62[c]	1124 (25.2)	-10.21[c]
600-699	657 (10.1)	-16.97[d]	619 (13.9)	-17.37[d]
700-799	201 (3.1)	-18.43[d]	403 (9.0)	-21.71[e]
800-899	57 (0.9)	-21.95[e]	196 (4.4)	-25.61[f]
>900	6 (0.1)	-28.30[e]	—	—
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
300-399	1577 (25)	Base[a]	955 (19)	Base[a]
400-499	2379 (37)	-2.32[b]	1629 (32)	-3.58[b]
500-599	1678 (26)	-4.51[c]	1272 (25)	-8.52[c]
600-699	578 (9)	-6.93[d]	727 (15)	-13.21[d]
700-799	152 (2)	-10.12[e]	357 (7)	-17.39[e]
800-899	64 (1)	-15.32[f]	87 (2)	-20.07[f]
>900	10 (0.1)	-20.06[f]	—	—

[a,b,c,d,e,f]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $91.24; 1999, $89.20. Heifers 1997, $75.62; 1999, $79.44.

cwt., in 1997, with smaller discounts for steers and heifers in 1999. However, <1/4 Brahman heifers sold at a $l.43/cwt premium in 1997, perhaps due to a perceived value as replacement females for eastern Oklahoma where resistance to heat, humidity and parasites is valued. Conversely, Brahman cross cattle typically receive significant discounts in the fall due to concern about their lack of tolerance to the cold weather in feedyards in western Kansas, Nebraska and the Oklahoma panhandle. Across the breed types surveyed, data from the two Oklahoma studies are in general agreement as to the direction of premiums and discounts with those of Georgia, Kansas and Tennessee workers.

Some breeds may have sold at premiums or discounts due to differences in the quality of animals of a particular breed relative to other parts of the state or country. Additionally, the prices quoted in this study are averages. Readers should be aware that animals of any particular breed sell for prices with a wide variation around these averages reflecting differences in quality.

Frame size and Muscling

Stocker and feeder cattle are described and marketed according to USDA feeder cattle grades

Table 4. Effect of breed character on sale price of feeder cattle in Eastern Oklahoma auctions.

Breed	*No. Lots (%)*	*Price difference due to breed, $/cwt*	*No. Lots (%)*	*Price difference due to breed, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Hereford	179 (2.8)	-8.37[b]	166 (3.7)	-4.76[ab]
Angus	378 (5.8)	Base[ef]	278 (6.2)	Base[cd]
Blk/rd white face	680 (10.5)	0.85[fg]	447 (10.0)	0.74[acd]
Blk exotic	695 (10.7)	2.66[h]	730(16.4)	0.93[acd]
Other exotics	2110 (32.5)	1.17[gh]	1448 (32.4)	0.95[acd]
<1/4 Brahman	1283 (19.8)	-1.91[d]	723 (16.2)	-1.17[e]
>1/4 Brahman	855 (13.2)	-5.91[c]	253 (5.7)	-6.11[b]
Dairy	84 (1.3)	-24.95[a]	154 (3.4)	-22.70[f]
Longhorn	129 (2.0)	-26.82[a]	81 (1.8)	-23.69[f]
Mixed (>1 head)	103 (1.6)	-1.83[de]	184 (4.1)	1.76[ad]
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
Hereford	234 (3.6)	-5.37[b]	211 (4.2)	-3.22[b]
Angus	521 (8.1)	Base[d]	364 (7.2)	Base[ace]
Blk/rd white face	817 (12.7)	0.77[d]	562 (11.2)	0.07[ace]
Blk exotic	532 (8.3)	3.64[e]	711 (14.1)	1.50[ad]
Other exotics	2106 (32.7)	2.98[e]	1679 (33.4)	1.42[ad]
<1/4 Brahman	1298 (20.2)	1.43[d]	928 (18.4)	-0.48[ce]
>1/4 Brahman	667 (10.4)	-1.91[c]	253 (5,0)	-4.53[f]
Dairy	44 (0.7)	-13.75[a]	67 (1.3)	-13.91[g]
Longhorn	112 (1.7)	-15.78[a]	117 (2.3)	-14.41[g]
Mixed (>1 head)	107 (1.7)	-0.49[cd]	139 (2.8)	1.27[acd]

[a,b,c,d,e,f,g]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $78.30; 1999, $75.09. Heifers 1997, $65.89; 1999, $67.59.

(Figures 1 and 2). In the 1997 study, small frame steers and heifers sold with severe discounts, $18.86 and $20.99/cwt, respectively, compared with large framed steers and heifers (Table 5). That discount was substantially reduced in 1999 (to less than $4/cwt). The medium frame size was divided into upper medium and lower medium categories. A significant price difference, $2-5/cwt, for steers and heifers was shown to exist between the upper medium and lower medium frame sizes for both steers and heifers in both studies. These cattle would have been commonly classified into one medium frame score category. This preference for larger framed cattle may be due to a perceived greater growth potential for these cattle. However, overly large carcasses and a reduced ability to grade choice may be of concern, depending on final live weight at harvest. Size should also be considered as it affects reproductive traits of females siblings to be retained as herd replacements.

In 1997, light-muscled cattle, especially steers, sold at large discounts (Table 6). The discount for light-muscled steers averaged $26.48/cwt. These discounts were reduced up to $10/cwt in the 1999 study. Discounts for medium- and light-muscled heifers relative to heavily-muscled heifers was substantially less those of steers. No explanation for this difference is apparent.

Fill, Body Condition, Health and Horns

Gut fill was discounted based on the magnitude of variation from an average fill (Table 7). Both gaunt and tanked steers and heifers received severe discounts with lessened discounts as fill moderated. The effect of fill on price was generally similar for steers and heifers in both studies.

Overly thin or overly fat cattle were heavily discounted in price (Table 8). Very thin steers and heifers averaged discounts of over $9/cwt and up to $14/cwt. Fat steers were discounted over $6/cwt, and heifers $5-11/cwt across both studies relative to cattle in average condition.

Cattle perceived to be sick or lame suffered severe discounts, some of which exceeded $25/cwt (Table 9). Cattle with bad eyes were discounted over $7/cwt and as much as $14/cwt. Stale cattle received price reductions up to $8.75/cwt. Cattle with rough or muddy hair coats were slightly discounted (usually over $2/cwt). 97% of the cattle were perceived to be healthy at the time of sale.

Cattle with horns received discounts in selling price relative to their polled counterparts, with horned steers being sold for approximately $3/cwt. less, and horned heifers slightly less than $2/cwt (Table 10).

Size and Uniformity of Sale Lot

The number of head in a sale lot had a significant effect on sale price (Table 11). Lots with two or more steers sold for $4.01-7.14/cwt over the price

Figure 1. Feeder cattle of small, medium, and large frame will have very different mature weights affecting management, feeding, and marketing. Large frame steers will grade U.S. Choice at weights over 1,200 lbs. Large frame heifers will grade Choice weighing over 1,000 lbs. Medium frame steers and heifers will grade Choice at 1,000 - 1,200 lbs. and 850 - 1,000 lbs, respectively. Small frame steers and heifers will grade Choice at less than 1,000 lbs. and less than 850 lbs., respectively.

Figure 2. Stocker and feeder cattle of various degrees of muscling are described as No. 1, 2, or 3. Shown are calves of the same frame score. The calf on the left has muscle thickness score of No. 1 (heavily muscled). The steer on the right is a No. 2 (medium). Light muscled cattle, No. 3 (not shown), are typically those of predominantly diary breeding.

Table 5. Effect of frame size on sale price of feeder cattle in Eastern Oklahoma auctions.

Frame size	*No. Lots (%)*	*Price difference due to frame size, $/cwt*	*No. Lots (%)*	*Price difference due to frame size, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Large	3248 (50)	Base[a]	2465 (55)	Base[a]
Upper medium	2461 (38)	-1.33[b]	1585 (36)	-0.90[b]
Lower medium	765 (12)	-3.40[c]	325 (7)	-5.84[c]
Small	22 (0.3)	-18.86[d]	89 (2)	-3.56[d]
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
Large	2603 (40)	Base[a]	2581 (51)	Base[a]
Upper medium	2828 (44)	-1.84[b]	1809 (36)	-0.50[b]
Lower medium	975 (15)	-4.07[c]	544 (11)	-3.47[c]
Small	32 (0.5)	-20.99[d]	96 (2)	-2.74[c]

[a,b,c,d,f]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $77.27; 1999, $73.82. Heifers 1997, $68.42; 1999, $67.78.

Table 6. Effect of muscling on sale price of feeder cattle in Eastern Oklahoma auctions.

Muscling	*No. Lots (%)*	*Price difference due to muscling, $/cwt*	*No. Lots (%)*	*Price difference due to muscling, $/cwt*
	Steers-Oct., 1997__		*Steers-Apr., 1999*	
Heavy	5718 (88)	Base[a]	3200 (72)	Base[a]
Medium	728 (11)	-9.37[b]	1109 (25)	-4.18[b]
Light	50 (1)	-26.48[c]	152 (3)	-14.95[c]
	Heifers-Oct., 1997____		*Heifers-Apr., 1999*	
Heavy	5619 (87)	Base[a]	3474 (69)	Base[a]
Medium	743 (12)	-4.82[b]	1426 (28)	-0.67[b]
Light	76 (1)	-8.10[c]	128 (3)	-8.06[c]

[a,b,c]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $78.31; 1999, $74.57. Heifers 1997, $67.67; 1999, $73.01.

Table 7. Effect of gut fill on sale price of feeder cattle in Eastern Oklahoma auctions.

Gut fill	*No. Lots (%)*	*Price difference due to gut fill, $/cwt*	*No. Lots (%)*	*Price difference due to fill, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Gaunt	41(0.6)	-10.32[a]	10 (0.2)	-7.22[ac]
Shrunk	1508 (23)	-1.92[c]	723 (16)	-2.53[a]
Average fill	3964 (61)	Base[d]	3406 (76)	Base[b]
Full	951 (15)	-4.15[b]	314 (7)	-4.27[c]
Tanked	32 (0.5)	-9.08[a]	10 (0.2)	-6.24[ac]
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
Gaunt	58 (0.9)	-4.19[b]	27 (0.5)	-1.16[abcd]
Shrunk	1213 (19)	-1.78[c]	746 (15)	-1.87[ab]
Average fill	4064 (63)	Base[d]	3848 (77)	Base[b]
Full	1083 (17)	-3.23[b]	391 (8)	-3.69[cd]
Tanked	20 (0.3)	-8.56[a]	19 (0.4)	-4.41[acd]

[a,b,c,d]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $77.76; 1999, $74.14. Heifers 1997, $68.16; 1999, $67.72.

Table 8. Effect of body condition on sale price of feeder cattle in Eastern Oklahoma auctions.

Body condition	*No. Lots (%)*	*Price difference due to body condition, $/cwt*	*No. Lots (%)*	*Price difference due to body condition, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Very thin	44 (0.7)	-13.24[a]	15 (0.3)	-14.40[ad]
Thin	1523 (23)	-3.64[b]	667 (15)	-4.37[bd]
Ave. condition	4412 (68)	Base[b]	3231 (72)	Base[c]
Fleshy	512 (8)	-2.56[b]	538 (12)	-0.39[c]
Fat	5 (0.08)	-6.01[ab]	12 (0.3)	-7.46[abd]
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
Very thin	42 (0.6)	-13.23[a]	27 (0.5)	-9.30[a]
Thin	1304 (20)	-2.91[b]	788 (16)	-2.59[b]
Ave. condition	4277 (66)	Base[c]	3453 (69)	Base[c]
Fleshy	806 (13)	-2.30[b]	742 (15)	-1.28[d]
Fat	9 (0.14)	-11.37[a]	21 (0.4)	-5.04[b]

[a,b,c,d]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $77.43; 1999, $73.74. Heifers 1997, $68.04; 1999, $68.02.

Table 9. Effect of health on sale price of feeder cattle in Eastern Oklahoma auctions.

Health condition	*No. Lots (%)*	*Price difference due to health, $/cwt*	*No. Lots (%)*	*Price difference due to health, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Rough hair coat	42 (0.6)	-2.62[c]	63 (1.4)	-3.15[abd]
Stale	118 (1.8)	-6.91[b]	66 (1.5)	-0.02[abe]
Sick	14 (0.2)	-28.42[a]	7 (0.16)	-17.53[c]
Bad eye(s)	8 (0.1)	-9.71[b]	13 (0.29)	-7.60[ad]
Lame	14 (0.2)	-21.58[a]	14 (0.31)	-18.11[c]
Healthy	6300 (97)	Base[c]	4301 (96)	-Base[be]
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
Rough hair coat	50 (0.8)	-2.51[c]	45 (0.9)	-1.40[abd]
Stale	105 (1.6)	-8.75[b]	79 (1.6)	-3.96[ab]
Sick	11 (0.17)	-28.96[a]	6 (0.12)	-16.50[c]
Bad eye(s)	9 (0.14)	-13.38[b]	4 (0.08)	-14.08[c]
Lame	11 (0.17)	-30.48[a]	20 (0.4)	-19.70[c]
Healthy	6252 (97)	Base[d]	4877 (97)	Base[ad]

[a,b,c,d,e]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $77.34; 1999, $72.98. Heifers 1997, $67.31; 1999, $67.16.

Table 10. Effect of horn presence on sale price of feeder cattle in Eastern Oklahoma auctions.

Horn condition	*No. Lots (%)*	*Price difference due to horns, $/cwt*	*No. Lots (%)*	*Price difference due to horns, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Polled	4087 (66)	Base[a]	2734 (66)	Base[a]
Horned	2127 (34)	-3.03[b]	1383 (34)	-3.42[b]
	Heifers-Oct., 1997____		*Heifers-Apr., 1999*	
300-399	4242 (69)	Base[a]	3414 (72)	Base[a]
400-499	1910 (31)	-1.94[b]	1309 (28)	-1.70[b]

[a,b]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $77.23; 1999, $73.55. Heifers 1997, $67.60;1999, $67.25.

of steers sold as singles in fall, 1997. However, the price differences due to lot size were mixed in 1999, possibly a reflection of discounts received for fleshy cattle coming off wheat pasture relative to thinner cattle purchased for grazing in fall, 1997. Multiple head lots that were not uniform sold for approximately $2/cwt less than uniform lots for steers and heifers in 1997 (Table 12) but price differences were mixed in 1999.

Producer Considerations

Gender. Buyers and sellers should be aware of the reduced animal performance on the part of newly castrated animals (weight gain, morbidity and mortality). Based upon the previously mentioned Kansas State study whereby newly castrated bulls gained .35 lb less daily than healed steers, intact bulls would need to be discounted $15-20/head. A lesser discount may be warranted if the cattle are young and locally raised, or otherwise relatively less stressed than older, heavier, shipped-in bulls.

Breed. These studies demonstrated that the price of cattle is affected by breed type based on perceptions by the buyer as to how the cattle will perform relative to his needs. Producer needs may be for replacement females or animals exhibiting particular characteristics pertaining to growth and carcass performance; those being frame, muscling, condition, etc. Other considerations may include the suitability of an animal for a particular environment or season. Producers of calves should be cognizant of these characteristics and design an appropriate breeding program.

Frame and muscling. The beef industry should supply a product, at a profit to those in each segment of the industry, that is lean, of acceptable quality and safe. Frame size provides an indication of the mature size of an animal destined for slaughter and the resulting carcass weight. Muscling also contributes to carcass weight and yield grade. Both characteristics indicate growth rate and efficiency of gain. However, very large carcasses are discounted. The beef cuts from these carcasses are too large for consumer acceptance. Low quality, even high yielding carcasses are discounted, too. Frame and muscling should be optimized, not maximized.

Condition and fill. Over-conditioned calves may not gain as well as thinner counterparts. Their nutritional maintenance requirements are higher and the calves are probably destined for a lower plane of nutrition subsequent to weaning. Buyers do not like to pay for fill. Feed and water can be purchased for less relative to the price of cattle so those animals exhibiting excessive fill will be discounted accordingly. Cattle overly thin or gaunt may signal underlying health problems causing buyers to adjust their bids.

Table 11. Effect of sale lot size on sale price of feeder cattle in Eastern Oklahoma auctions.

Lot Size, head	*No. Lots (%)*	*Price difference due to lot size, $/cwt*	*No. Lots (%)*	*Price difference due to lot size, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
1	4742 (73)	Base[a]	2939 (66)	Base[a]
2-5	1312 (20)	4.01[b]	1032 (23)	2.00[b]
6-10	300 (5)	5.69[c]	210 (5)	-2.54[c]
>10	142 (2)	7.14[c]	283 (6)	-4.37[c]
	Heifers-Oct., 1997		*Heifers-Apr., 1999*	
1	4719 (73)	Base[a]	3384 (67)	Base[a]
2-5	1326 (21)	3.17[b]	1208 (24)	2.19[b]
6-10	248 (4)	4.31[bc]	210 (4)	0.62[a]
>10	145 (2)	4.70[c]	229 (5)	-1.85[c]

[a,b,c]Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $72.39; 1999, $79.54. Heifers 1997, $64.11; 1999, $72.15.

Table 12. Effect of lot uniformity on sale price of feeder cattle in Eastern Oklahoma auctions.

Lot uniformity	*No. Lots (%)*	*Price difference due to lot uniformity, $/cwt*	*No. Lots (%)*	*Price difference due to lot uniformity, $/cwt*
	Steers-Oct., 1997		*Steers-Apr., 1999*	
Uniform	341 (81)	Base[b]	1366 (90)	Base
Not uniform	81(19)	-1.92[c]	159 (10)	0.60
	Heifers-Oct., 1997		Heifers-Apr., 1999	
Uniform	320 (83)	Base[b]	1476 (90)	Base
Not uniform	65 (17)	-2.35[c]	169 (10)	-0.77

[a]Lots with less than six head were not included for analysis of lot uniformity.
[b,]Includes lots with 2 or more head. Values with differing superscripts in a column differ (P<.05).
Base prices: Steers 1997, $82.97; 1999, $75.17. Heifers 1997, $72.79; 1999, $69.26.

Lot size and uniformity. A premium for uniform, multiple head lots is generally attributed to the convenience of filling orders for cattle of a specified description on the part of an order buyer. However, larger, uniform lots may indicate a single point of origin for the cattle leading to less stress and fewer health problems as may be associated with a pen of cattle assembled from many origins. Multiple head lots may imply similar genetics and management. Larger lots may also reduce management problems at reception, later nutritional management and increase future marketability.

Horns. Calves should be dehorned surgically or with dehorning paste when they are young. Use of a polled bull is most desirable. Horns result in carcass bruises and take up space at the feed bunk. Also, modern packing plants pull the hide off the animal from the hocks over the head. The presence of horns dictates their removal for this process to take place. The removal of large base horns results in an open sinus in the head wherein debris from the hide may fall. Inspectors at the plant may then condemn the head resulting in a loss of up to 50 dollars.

Recommendations for the cow/calf producer.

- Design a breeding program that insures few market discounts. This will require cattle that grow efficiently and produce a desirable carcass. In general, color may not matter as much as other genetic contributions such as frame and muscling.
- Castrate all bull calves not intended as herd sire replacements. Implanting these steers will compensate for any reduced gains relative to intact males.
- Dehorn all commercial calves while young or use a polled bull.
- Market calves in average flesh. Creep feeding calves generally will produce fleshier calves at weaning. These cattle will sell at a discount and probably will not return the added investment in feed.
- Market calves with average fill. Buyers recognize the general intent behind tanked calves and will discount them accordingly. Gaunt calves signal that they may have health problems or that they are stale.
- Market calves in multiple-head, uniform sale lots. Uniformity includes gender, frame, muscling, weight, color, etc.
- Do not expect quoted average market prices for sick cattle. Preconditioned calves may sell at a premium if they are advertised and recognized as such. Preconditioning will include vaccinations, a bawling out period, etc. If calves have been on fescue they may look sick but in reality they are heat stressed. Because of fescue toxicosis they have rough hair coats, elevated body temperatures and probably have not been eating/grazing well. Research has shown that these cattle are capable of significant compensation when handled appropriately. It may be best to retain ownership on these cattle in a fescue-free environment (see OSU Extension circular E-884).

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Auction Name, Location	*Owner or Operator*
Atoka Salebarn	Larry Rains
Antlers Stockyard, Inc.	Floyd Herman
Durant Stockyards	Scott Moore
Farmers & Ranchers Livestock, Vinita	Mike, Phil & Tom Carroll
Fort Smith Livestock Auction	Sam Godwin, Allen Hales, L.R. Fox
Idabel Stockyards Doc, Inc.	Ronnie Surrat, DVM
McAlester Union Livestock Marketing	Julie Grant
Muskogee Stockyard and Livestock Auction	Tom Laster
OKC East Livestock Market, Inc., Holdenville	Jack Goodson
Oklahoma National Stockyards, OKC	George Hall
Perkins Y Auction	Jim Edwards
Pryor Stockyards, Inc.	Wayne Chidester
Red River Salebarn, Ardmore	Leroy Mauldin
South Coffeyville Stockyards, Inc.	Jim Folk & Family
Southern Oklahoma Union Livestock Auction, Ada	Mark Sherrill, DVM
Stigler Livestock Auction	Johnny Rosso
Stilwell Livestock Sales	John Horton
Freeman Livestock Auction, Sulphur	Fred Freeman