

# Slow Improvement in Cattle Markets Expected.

August 2002

Chris Hurt

The national cattle herd is modestly smaller at mid-year. The number of beef cows is down a small amount while milk cow numbers have grown. Beef production for 2002 is now expected to reach 26.6 billion pounds, a two percent increase from last year. The slaughter rate may finally taper off a bit in the final quarter of this year, as steers and heifers for market that were over 500 pounds on July 1 were down about two percent. Cow slaughter is also expected to move lower and weights are expected to be close to unchanged with higher priced feed inputs.

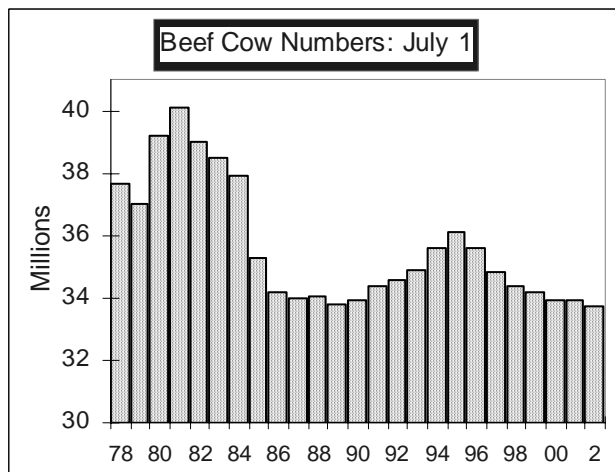
Finished cattle prices are expected to make a slow recovery in the last-half of 2002. This after a disappointing performance since late 2001. On the other hand, feeder cattle are expected to experience little price increase as a larger calf crop and higher feed prices offset the potential modest gains in finished cattle prices. Calf prices are also expected to struggle with this fall's prices being nearly \$10 per hundredweight below prices in the fall of 2001 and the fall of 2000.

Finished steer prices are expected to move upward to the higher \$60's for the last quarter of this year and into the very low \$70's for the first-half 2003 average. Daily highs could reach toward the mid-\$70's. Feed lot returns will be highly influenced by volatility in grain and feed prices. The weather uncertainty this summer and its impact on yields for corn, soybeans, and forages will have a potentially large impact on feeding returns and prices for feeder cattle and calves.

## The Numbers

Table 1 provides the details of cattle inventory numbers reported from the mid-year *Cattle* report from USDA. All cattle and calf numbers were at 105.2 million head which was down .6 percent from last year at the same time. Even with much lower calf prices and drought conditions in

**Figure 1**



much of the plains and mountain states, the total number of cows is down only fractionally and the anticipated calf crop this year is actually up by .3 percent to 38.4 million head. Beef cow numbers were down .4 percent, but milk cow numbers were up .5 percent.

The current decline in beef cow numbers extends the downward trend since 1995, now in it's seventh year. Since that time, the July inventory of beef cows has decreased 7 percent. The current cycle in beef cow numbers is shown in **Figure 1** and is now 13 years old. It includes a period of increasing numbers from 1989 to 1995 and then decreasing from 1995 to the present.

Milk producers are indicating they intend to expand the herd even more as milk replacement heifers are up sharply by 2.8 percent. This is in reaction to the strong profits last year, and perhaps due to new government milk price supports, especially among small and moderate size herds. Beef producers, on the other hand, intend to keep the size of the breeding herd about the same as beef replacement heifer numbers were unchanged from last year at this time.

The rate of steer and heifer slaughter should ease in the last-half of 2002 as a result of smaller numbers in key slaughter categories. The number of heifers 500 pounds and larger that are not destined to return to breeding herds is down 3.7 percent, and the number of steers over 500 pounds are down by .7 percent. Some continued liquidation of brood cows can be expected with limited pasture and forage in a number of areas of the country. Calves that were under 500 pounds and will provide the pool for slaughter in the first-half of 2003 and are down .7 percent.

Drought conditions have reduced beef herds in several of the key mountain states. Colorado's beef cow herd is down 7 percent, while the herds in Montana and Kansas are each down 6 percent from last year. Nebraska's brood cow numbers dropped by 3 percent. In the less drought affected areas such as Iowa the breeding herd was up 2 percent. Texas also saw an increase of 2 percent in their breeding herd as drought conditions have been more confined to far-west Texas this year. Drought is also dominant in the mid-Atlantic states from Virginia to Georgia, and has also likely resulted in some reduction of the cow herd in that region.

### **The Weight Problem**

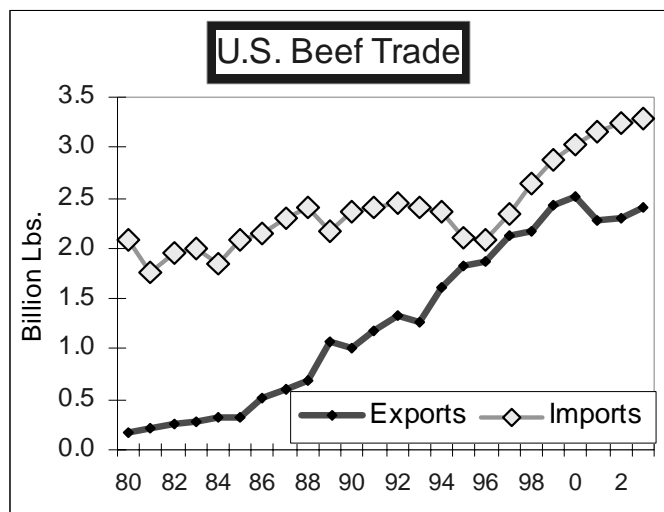
While beef cow numbers have been decreasing since 1995, that has not been the case for production as finishers have added more weight. In fact, very high marketing weights have plagued the cattle market since last fall, and will be an important factor in price determination in the coming year. As an example, in the first-half of this year while the number of head being marketed was nearly unchanged, but weights added 3.9 percent to the total beef supply. Low priced feed and unfulfilled hopes for a recovery in finished cattle prices seem to be the explanation for why feedlot managers kept adding pounds, (see Table 4.)

In the coming 12 month period, it is anticipated that weights will remain about one to two percent higher this summer, but then drop back closer to unchanged for the fall and winter as a result of sharply higher feed prices.

### **Beef Demand**

We will explore two components of beef demand, domestic and export. First in the domestic market, retail prices averaged \$3.31 per pound in the first-half of 2002 the same level as in the first half of 2001. Commercial production, on the other hand was up 4.1 percent. Consumers buying more tonnage at the same price is an indication of improved demand. What was dramatically different however was that live cattle prices were more than \$9 per live hundredweight lower in 2002. Thus the marketing margins were obviously much wider. In the first-half of 2001, the margin between the farm and retail level was \$1.73 per retail pound, and \$1.84 in 2002. Thus while beef demand seems to have improved, all of the advantage appears to

**Figure 2**



have gone to the marketing sector. This analysis will be more conclusive with a full year of data.

The export market has also been contributing to lower cattle prices. Current estimates from USDA are that beef exports will remain weak again this year and be down about 7 percent from the year of 2000. Beef imports are expected to rise by 2 percent. The weakness in exports is largely attributable to reduced beef consumption in Japan due to concerns about "mad cow disease." The slow down in the growth of beef exports can be seen in **Figure 2** for 2001 and 2002

In the first five months of this year, beef exports to Japan, our largest beef customer, were down nearly 30 percent. This was offset by improved exports to Korea, Mexico, and Canada. Beef imports from Australia were up 13 percent in the same period and Canadian beef imports were up 14 percent.

## Prices

Some recovery in finished cattle prices is expected this fall. Nebraska 1100-1300 pound choice steers averaged only \$65.58 in the second quarter of 2002, this is expected to only improve about \$1 for a summer average, with prices finally increasing in September. The fall quarter is expected to see prices recover into the higher \$60's. Some further modest recover can be expected into the first-half of 2003 with prices averaging near \$70 in the first quarter and in the extremely low \$70's in the second quarter. Given normal seasonal price tendencies, this would mean that spring highs in late March or early April could reach the low-to-mid \$70's for some daily highs.

Feeder cattle prices are expected to be well below their previous year levels over the coming 12 months. Lower prices will be a result of a modestly larger 2002 calf crop, the sluggish recovery in finished cattle prices and higher feed and forage prices. Oklahoma City steers weighing in the 750 to 800 pound range are expected to average in the low \$80 per live hundredweight this summer, and near \$80 for the fall. During the first-half of 2003, they are expected to be in the mid-to-higher \$70s. Prices for the next 12 months are expected to be about \$5 per hundredweight lower than in the previous 12 months.

Lower priced feeder cattle will likely result in lower priced calves over the next year also. Oklahoma City 500 to 550 pound steers as an example are expected to be in the low \$90's per hundredweight this summer, but drop to the higher \$80's in the fall. Prices during the first-half of 2003 are expected to be in the lower \$90's. As an example of the changed price prospects for brood cow producers, these calves averaged \$98 per hundredweight last fall, but are expected to

<b>Beef Production</b>				<b>Cattle Prices (\$/cwt.)</b>			
<u>Year</u>	<u>Qtr.</u>	<u>Mill. #s</u>	<u>%Change Year-Ago</u>	<u>Finished Steers</u>	<u>450-500# Heifers</u>	<u>500-550# Steers</u>	<u>750-800# FeederSteers</u>
1999	I	6,397	2.9%	\$62.43	\$78.03	\$87.35	\$71.93
	II	6,627	2.6%	\$65.04	\$80.49	\$89.12	\$72.17
	III	6,838	3.0%	\$65.12	\$82.36	\$87.12	\$77.57
	IV	6,522	2.9%	\$69.65	\$85.28	\$93.20	\$83.87
	<b>Year</b>	<b>26,384</b>	<b>2.8%</b>	<b>\$65.56</b>	<b>\$81.54</b>	<b>\$89.20</b>	<b>\$76.39</b>
2000	I	6,653	4.0%	\$69.32	\$96.90	\$106.13	\$84.91
	II	6,699	1.1%	\$71.59	\$96.16	\$101.64	\$84.76
	III	6,914	1.1%	\$65.43	\$93.46	\$101.80	\$86.25
	IV	6,511	-0.2%	\$72.26	\$93.57	\$97.97	\$88.76
	<b>Year</b>	<b>26,777</b>	<b>1.5%</b>	<b>\$69.65</b>	<b>\$95.02</b>	<b>\$101.89</b>	<b>\$86.17</b>
2001	I	6,182	-7.1%	\$79.11	\$100.39	\$107.78	\$86.82
	II	6,501	-3.0%	\$76.41	\$102.17	\$107.22	\$89.47
	III	6,723	-2.8%	\$70.19	\$97.06	\$103.00	\$91.13
	IV	6,700	2.9%	\$65.13	\$90.75	\$98.21	\$85.37
	<b>Year</b>	<b>26,106</b>	<b>-2.5%</b>	<b>\$72.71</b>	<b>\$97.59</b>	<b>\$104.05</b>	<b>\$88.20</b>
2002	I	6,376	3.1%	\$70.19	\$94.87	\$102.35	\$81.24
	II	6,830	5.1%	\$65.58	\$87.47	\$91.76	\$77.16
	III	6,880	2.3%	\$66.45	\$87.61	\$91.79	\$81.06
	IV	6,600	-1.5%	\$67.79	\$83.31	\$87.86	\$79.59
	<b>Year</b>	<b>26,686</b>	<b>2.2%</b>	<b>\$67.50</b>	<b>\$88.32</b>	<b>\$93.44</b>	<b>\$79.76</b>
2003	I	6,489	1.8%	\$70.38	\$88.72	\$92.77	\$77.63
	II	6,687	-2.1%	\$70.61	\$89.12	\$92.46	\$77.76

More detail can be found in Table 5

be only \$88 this fall. Prices for the next 12 months are expected to be about \$9 per hundredweight lower, on average, than in the previous 12 months. Heifer calves tend to average about \$4 per hundredweight less than steer calves and price estimates are shown in the table here as well as in Table 5. Eastern Corn Belt calves at auction markets tend to be \$3 to \$5 lower than Oklahoma City.

### Industry Future

The cattle industry has multiple concerns. Grain and protein prices are going to be sharply higher this fall, with the precise magnitude to be highly influenced by weather in the next several weeks. Poor pasture conditions and lack of forage crops, in the western Plains, mountain state, and portions of the mid-Atlantic states may also result in further liquidation of cows and movement of calves to market more quickly than planned. In addition, there remains uncertainty about how consumers will respond to the decline in stock values. If they begin to watch their food budgets more closely, beef demand will be among the first to suffer.

Overall cattle prices are expected to be in a period of recovery over the next year as supplies

moderate with a smaller steer and heifer slaughter and reduction in cow slaughter into 2003. Prospects for some improvement in exports will also be positive to prices. However, that improvement may still only move finished steer prices back into the higher \$60's for the final quarter of 2002 and into the very low \$70's for the first quarter of 2003. Some daily highs could approach the mid-\$70's in late March and April.

Steer calf prices in the higher \$80s will still be profitable for most brood cow operators, but not enough to encourage further expansion of the herd. In general, many managers will be disappointed with calf prices this fall compared to the past two years as they are expected to be about \$10 per hundredweight lower on average.

With tightening ending world grain and oilseeds stocks, greater volatility in feed price should be anticipated in the coming year than has been the case since 1998.

Table 1. Cattle Number, 1991 - 2002

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	% Change vs. 2001
All cattle and calves													
January 1	98,896	99,559	99,176	100,988	102,755	103,487	101,656	99,744	99,115	98,198	97,277	96,704	-0.6
July 1	109,000	109,200	109,000	111,300	113,000	111,500	109,200	107,700	107,000	106,300	105,800	105,200	-0.6
Beef cows													
January 1	33,271	33,775	33,365	34,650	35,156	35,228	34,458	33,885	33,745	33,569	33,397	33,100	-0.9
July 1	34,400	34,550	34,900	35,600	36,100	35,600	34,800	34,400	34,150	33,950	33,900	33,750	-0.4
Milk cows													
January 1	10,156	9,913	9,658	9,528	9,487	9,416	9,318	9,199	9,133	9,190	9,183	9,110	-0.8
July 1	10,000	9,850	9,700	9,500	9,500	9,400	9,300	9,200	9,150	9,250	9,100	9,150	0.5
Heifers 500 lbs. +													
Beef replacement													
January 1	5,605	5,761	6,092	6,365	6,475	6,179	6,042	5,764	5,535	5,503	5,588	5,561	-0.5
July 1	5,300	5,700	5,700	5,900	5,700	5,500	5,300	5,000	4,800	4,700	4,600	4,600	0.0
Milk replacement													
January 1	4,220	4,202	4,176	4,144	4,141	4,104	4,058	3,986	4,069	4,000	4,057	4,060	0.1
July 1	4,200	4,200	4,000	4,000	3,900	3,700	3,600	3,600	3,700	3,700	3,600	3,700	2.8
Other heifers 500 lbs. +													
January 1	8,357	8,142	8,550	9,068	9,275	9,949	10,212	10,051	10,170	10,147	10,131	10,057	-0.7
July 1	7,400	7,100	7,300	7,500	8,000	8,100	8,200	8,100	8,100	8,100	8,200	7,900	-3.7
Steers 500 lbs. +													
January 1	16,369	16,755	16,940	17,042	17,463	17,732	17,392	17,189	16,891	16,682	16,441	16,800	2.2
July 1	15,100	15,100	14,900	15,200	15,400	15,100	14,800	14,600	14,400	14,300	14,600	14,500	-0.7
Bulls 500 lbs. +													
January 1	2,228	2,279	2,278	2,307	2,390	2,392	2,350	2,270	2,281	2,293	2,274	2,244	-1.3
July 1	2,200	2,200	2,200	2,300	2,400	2,400	2,300	2,200	2,200	2,100	2,100	2,100	0.0
All Calves < 500 lbs.													
January 1	18,691	18,733	18,117	17,884	18,369	18,488	17,826	17,401	17,290	16,815	16,206	15,773	-2.7
July 1	30,400	30,500	30,300	31,300	32,000	31,700	30,900	30,600	30,500	30,200	29,700	29,500	-0.7
Calf Crop	39,026	39,290	39,448	40,059	40,211	39,776	38,961	38,812	38,796	38,631	38,280	38,400	0.3

Table 2: Ratios of Commercial Slaughter Steers and Heifers to Beginning Cattle Inventories, 1985 to 2002

	July 1 Inventory	Second Half	Ratio	Calves <	First Half	Ratio
	Steers and Heifers	Steer and Heifer		500 Pounds	Steer and	
	500+ <sup>b</sup>	Slaughter		July 1	Heifer	
	thousand head			thousand head		
1985	24,200	14,056	58.1	33,600	14,219	42.3
1986	23,300	14,394	61.8	32,200	14,046	43.6
1987	22,400	14,304	63.9	31,100	13,989	45.0
1988	21,800	14,101	64.7	31,000	13,564	43.8
1989	21,600	13,470	62.4	30,600	13,425	43.9
1990	21,600	12,901	59.7	30,300	13,048	43.1
1991	22,500	13,397	59.5	30,400	13,137	43.2
1992	22,200	13,231	59.6	30,500	13,101	43.0
1993	22,200	13,472	60.7	30,300	13,576	44.8
1994	22,700	14,038	61.8	31,300	14,119	45.1
1995	23,400	14,554	62.2	32,000	14,742	46.1
1996	23,200	13,831	59.6	31,700	14,680	46.3
1997	23,000	14,861	64.6	30,900	14,446	46.8
1998	22,700	14,447	63.6	30,600	14,794	48.3
1999	22,500	15,001	66.7	30,500	15,159	49.7
2000	22,400	14,942	66.7	30,200	14,347	47.5
2001	22,800	14,607	64.1	29,700	14,499	48.8
2002 <sup>a</sup>	22,400	14,739	65.8	29,500	14,367	48.7

<sup>a</sup> Projected for next 12 months

<sup>b</sup> Excluding replacement heifers

Table 3 Cow Inventory, July 1 and Cow and Bull Slaughter for the Following Year

	Cow	Cow	Ratio	Bull Slaughter	Ratio Bull Slaughter to Cow Slaughter
	Inventory	Slaughter	Slaughter /Inventory		
	----thousand head----			thousand head	
1985	46,182	7,765	16.8	738	9.5
1986	45,000	7,319	16.3	710	9.7
1987	44,400	6,398	14.4	665	10.4
1988	44,300	6,400	14.4	650	10.2
1989	43,900	5,982	13.6	666	11.1
1990	44,000	5,720	13.0	634	11.1
1991	44,400	5,659	12.7	621	11.0
1992	44,400	5,964	13.4	656	11.0
1993	44,600	6,008	13.5	662	11.0
1994	45,100	6,052	13.4	661	10.9
1995	45,600	6,545	14.4	689	10.5
1996	45,000	7,007	15.6	715	10.2
1997	44,100	6,351	14.4	666	10.5
1998	43,600	5,846	13.4	615	10.5
1999	43,300	5,643	13.0	648	11.5
2000	43,200	5,667	13.1	620	10.9
2001	43,000	5,658	13.2	628	11.1
2002 <sup>a</sup>	42,900	5,663	13.2	634	11.2

<sup>a</sup> Projected for next 12 months

Table 4. Commercial Beef Slaughter, Production, and Dressed Weights, 1983-2002

Year	Slaughter (1,000 hd)	Weight (lb)	Production (lbs)	Slaughter (1,000 hd)	Weight (lb)	Production (lbs)
	-----January-March-----			-----April-June-----		
1983	8,735	632	5,525	8,844	627	5,549
1984	9,169	623	5,708	9,341	623	5,819
1985	8,936	637	5,691	9,023	656	5,917
1986	8,884	649	5,769	9,574	652	6,247
1987	8,765	657	5,756	8,878	646	5,737
1988	8,575	664	5,696	8,759	660	5,784
1989	8,180	676	5,529	8,694	664	5,777
1990	8,117	678	5,507	8,541	671	5,733
1991	7,858	685	5,383	8,299	686	5,694
1992	8,032	697	5,597	8,255	693	5,726
1993	7,910	677	5,357	8,469	672	5,690
1994	8,162	704	5,745	8,615	702	6,042
1995	8,418	699	5,888	9,053	699	6,325
1996	8,971	703	6,303	9,589	693	6,642
1997	8,912	686	6,112	9,307	690	6,419
1998	8,681	716	6,215	8,995	718	6,461
1999	8,733	733	6,397	9,176	722	6,627
2000	9,005	739	6,653	9,195	729	6,699
2001	8,500	727	6,182	9,033	720	6,501
2002	8,408	758	6,376	9,153	739	6,760
2003	8,538	760	6,489	9,024	741	6,687
	-----July-September-----			-----October-December-----		
1983	9,547	630	6,012	9,537	626	5,974
1984	9,559	622	5,949	9,503	624	5,933
1985	9,352	659	6,166	8,978	643	5,774
1986	9,654	650	6,275	9,180	645	5,925
1987	9,222	657	6,063	8,783	666	5,852
1988	9,199	672	6,186	8,538	674	5,575
1989	8,612	684	5,892	8,430	686	5,785
1990	8,449	689	5,814	8,112	687	5,564
1991	8,453	711	6,012	8,074	707	5,710
1992	8,451	709	5,991	8,122	696	5,654
1993	8,673	700	6,076	8,268	704	5,819
1994	8,825	723	6,377	8,629	709	6,114
1995	9,279	714	6,625	8,890	706	6,277
1996	9,123	700	6,390	8,900	684	6,084
1997	9,300	710	6,603	8,879	704	6,258
1998	9,071	732	6,638	8,737	726	6,339
1999	9,337	733	6,841	8,915	732	6,525
2000	9,256	747	6,914	8,791	741	6,511
2001	8,987	748	6,720	8,844	758	6,700
2002 <sup>a</sup>	9,088	757	6,880	8,753	754	6,600

<sup>a</sup> Projected for next 12 months

Table 5. Beef, Pork, Poultry Production, Nebraska Steer Prices, and Oklahoma City Feeders by Quarter

		Beef Production	Pork Production	Poultry Production	Nebraska Choice Steer Price	Oklahoma City 450-500 Heifers	Oklahoma City 5-550 Steers	Oklahoma City 750-800 Steers
		-----million pounds-----			-----\$/cwt-----			
1991	I	5,383	3,901	5,821	80.89		109.37	91.16
	II	5,694	3,792	6,311	79.34		112.00	93.42
	III	6,012	3,821	6,415	70.29		101.91	87.66
	IV	5,710	4,434	6,338	70.60		94.76	81.88
1992	I	5,595	4,321	6,314	75.95		95.72	79.56
	II	5,723	4,033	6,624	77.18		93.44	80.71
	III	5,990	4,264	6,816	72.84		94.16	83.50
	IV	5,660	4,567	6,644	76.49		91.17	81.72
1993	I	5,357	4,204	6,542	80.65		99.51	85.76
	II	5,690	4,151	6,987	79.78		104.17	86.80
	III	6,076	4,140	7,027	73.77		100.08	87.99
	IV	5,819	4,535	6,970	71.23		94.83	85.27
1994	I	5,745	4,182	6,765	73.10	90.66	98.96	82.14
	II	6,042	4,240	7,238	68.79	87.79	94.16	77.63
	III	6,377	4,326	7,504	66.37	79.28	86.42	76.37
	IV	6,114	4,913	7,339	67.63	77.96	84.58	74.74
1995	I	5,888	4,488	7,343	71.51	78.30	86.81	72.62
	II	6,325	4,394	7,653	64.73	71.23	78.62	65.77
	III	6,625	4,240	7,472	62.65	63.50	68.29	65.44
	IV	6,277	4,690	7,683	66.10	56.20	64.45	67.55
1996	I	6,303	4,389	7,880	63.06	53.54	62.12	58.11
	II	6,642	4,104	7,949	60.26	50.24	59.83	56.79
	III	6,390	4,143	8,043	67.35	56.18	64.90	63.29
	IV	6,084	4,449	7,930	70.39	57.55	67.49	66.15
1997	I	6,107	4,194	7,875	66.40	70.64	81.28	69.44
	II	6,416	4,091	8,341	66.63	81.28	90.28	75.88
	III	6,603	4,194	8,275	65.65	83.97	92.65	80.44
	IV	6,258	4,767	8,259	66.56	78.81	89.90	78.98
1998	I	6,215	4,687	8,135	61.73	81.43	83.44	75.49
	II	6,461	4,429	8,316	64.11	81.54	86.71	74.00
	III	6,638	4,625	8,244	58.97	69.11	74.41	67.89
	IV	6,339	5,239	8,452	61.06	72.67	79.21	69.80
1999	I	6,397	4,865	8,501	62.43	78.03	87.35	71.93
	II	6,627	4,630	8,928	65.04	80.49	89.12	72.17
	III	6,838	4,672	8,848	65.12	82.36	87.12	77.57
	IV	6,522	5,110	8,760	69.65	85.28	93.20	83.87
2000	I	6,653	4,824	8,887	69.32	96.90	106.13	84.91
	II	6,699	4,478	9,146	71.59	96.16	101.64	84.76
	III	6,914	4,606	8,934	65.43	93.46	101.80	86.25
	IV	6,511	5,010	8,929	72.26	93.57	97.97	88.76
2001	I	6,182	4,805	8,879	79.11	100.39	107.78	86.82
	II	6,501	4,546	9,369	76.41	102.17	107.22	89.47
	III	6,723	4,548	9,276	70.19	97.06	103.00	91.13
	IV	6,700	5,239	9,317	65.13	90.75	98.21	85.37
2002 <sup>P</sup>	I	6,376	4,779	9,240	70.19	94.87	102.35	81.24
	II <sup>P</sup>	6,830	4,820	9,650	65.58	87.47	91.76	77.16
	III	6,880	4,749	9,475	66.45	87.61	91.79	81.06
	IV	6,600	5,297	9,475	67.79	83.31	87.86	79.59
2003	I	6,489	4,979	9,425	70.38	88.72	92.77	77.63
	II	6,687	4,865	9,850	70.61	89.12	92.46	77.76

<sup>P</sup> Preliminary

\*Prices are point estimates, but users should look at a range of possible prices at least in a band that both adds and subtracts the following \$/cwt. These are the estimation errors:

Nebraska steers: \$2.00/cwt.; 450 to 500# heifers and 500 to 550 # steers: \$2.50/cwt.; 750 to 800 # steers: \$3.00/cwt.

This range has included about 67% of the prices from the historical price estimates.

