



Beef Outlook Information

SOURCES OF ERROR IN OUTLOOK

Because our projections of beef prices were too high during most of 1966, we want to review our major sources of error. So let us examine the important factors affecting choice steer prices.

Demand factors are: (1) prices of competing meats, (2) level of per capita disposable income, (3) changes in consumer preference, and (4) population growth.

Supply factors are: (1) fed beef production and (2) nonfed steer and heifer beef production.

When estimating **annual changes** in supply, the major factors considered are: (1) potential supply of feeder cattle (calf crop, inventories, and expected imports), and (2) subtractions from potential supply (expected calf slaughter, heifer holdback, and steer carryover).

When estimating **quarterly changes** in supply, the major factors considered are: (1) *Cattle on Feed Reports*, (2) expected placement rates, and (3) expected marketing weights.

Other factors affecting choice steer prices are: (1) general price level, (2) value of byproducts, (3) changes in marketing margins, and (4) choice beef quantities relative to other beef grades.

Since demand factors are quite stable from 1 year to the next, yearly demand increases are relatively easy to project. But variations in expected supplies of competing meats (including imports) and unusual changes in disposable income levels raise or decrease the usual demand increase from one time period to another.

Except at turning points of cattle cycles, estimating approximate annual changes in steer and heifer slaughter generally is not difficult. Outlook workers have a good record when projecting annual *directional* changes in the level of beef supplies and prices. Our projected directional change was even correct for 1966—higher prices than in 1965. But our level of change was too high due primarily to our incorrect projection of heifer holdback.

During the past year, we anticipated a slowdown in placements of heifers on feed. Evidence of such a slowdown appeared in the October 1 *Cattle on Feed*

This article was prepared on February 13, 1967, by Paul R. Hasbargen and Kenneth E. Egerton, extension economists, University of Minnesota.

Report. However, according to the January 1 *Report*, more heifer calves are now on feed than there were a year ago.

Seasonal price variations are difficult to forecast accurately because of the need to project shortrun changes in steer and heifer beef production. U. S. Department of Agriculture (USDA) quarterly *Cattle on Feed Reports* are the main objective sources of shortrun marketing estimates. As soon as a report is released, fairly accurate estimates of fed cattle marketings generally can be made for the next 2 or 3 months. However, estimates in these reports are based on samples and are subject to error.

For example, USDA just revised their estimates of cattle fed since 1958, substantially increasing the previously reported figures for 1965 and 1966. The effect of this adjustment on our supply projections last quarter is illustrated in table 1.

Note that the suggested marketing increase over year-earlier levels of the heaviest weight group moved up from 307,000 head to 379,000—a significant change. Actual marketings of fed cattle during 1966 reportedly increased 381,000 head over the year-earlier level. With an increase of this size, the low prices are not surprising. Moreover, the number of heavy steers was revised upward proportionately more than the number of heifers. So information in previous *Cattle on Feed Reports* led us to underestimate future changes in fed beef supplies and to overestimate future prices.

When projecting cattle prices beyond a few months, more emphasis must be placed on estimates of placement rates

than on *Cattle on Feed Reports*. There is no sound, objective way to make these estimates. Feeder cattle supply and demand conditions must be considered, along with the apparent stage of the cattle cycle. In the past, we underestimated the rate of heifer placements in the belief that heifers would be held back for herd replacements. This situation led to an underestimation of fed marketings 3-9 months later and a subsequent overestimation of prices.

Marketing weights can change greatly in a year's time. But since the trend is usually apparent, shortrun changes can be anticipated. For most of 1966, weights were up to about what we expected, with a concurrent narrowing of price margins between high and low finished animals. However, market weights were still climbing in January—approaching 1964 levels. **Therefore, marketing weights will be a more important price depressing factor in early 1967 than we anticipated.**

Unfortunately, most feeders carry cattle to heavier weights when prices are moving down and sell at lighter weights when prices are moving up—just the opposite of what they should do. So much larger price swings result than would occur from changes in numbers alone.

Although byproduct values can significantly affect cattle prices, we do not forecast this item. During the last half of 1966, the decreased value of cattle byproducts resulted in about a 50 cent decrease per hundredweight (cwt.) of live beef.

Marketing margins or “profits of middlemen” normally vary in the opposite direction of cattle prices. When supplies are relatively short and prices

Table 1. Cattle on feed in 32 states by weight groups on October 1, 1966, as reported in October Cattle on Feed Report and as revised in the January Report

Weight group (pounds)	October 1966 Report		As Revised, January 1967 Report		Suggested marketing increase (thousands) over year-earlier level	
	Number on feed (thousands)	Percent change from 1965	Number on feed (thousands)	Percent change from 1965	Previous	Revised
S over 900 } H over 700 }	3,798	+ 9	4,050	+10	307	379
S 700-899 } H 500-699 }	2,664	+ 5	2,825	+ 6	119	157
S 500-699 } H under 500 }	1,159	+11	1,205	+11	120	120
S under 500	307	+12	320	+12	33	32

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high, margins narrow. So when live cattle prices move up, they usually peak higher than expected; conversely, prices go lower than expected when moving down.

This brief review points up possible sources of error in our forecasting. In these quarterly reports, we spell out our underlying supply and demand projections. Therefore, you can adjust your price expectations accordingly if you see reason to disagree. Unfortunately, errors made in recent projections were all in the same direction.

REVIEW OF 1966

Choice steer prices averaged \$26.37 per cwt. at Chicago in 1966, only slightly above the \$26.19 average of 1965. Lower grade cattle and lighter weight choice steers showed relatively greater gains.

The average weight of all steers sold at 15 markets was 24 pounds heavier than in 1965; the differential widened from 17 pounds in the first quarter to 29 pounds in the last. **A comparison of variations in market weights with variations in steer prices over the past 3 years shows that they usually moved in opposite directions.**

Marketings of fed cattle were 8.7 percent larger in 1966 than in 1965. Largest increases came in the second and third quarters. However, these increases contained relatively more heifers than did the fourth quarter increase. Table 2 shows revised estimates of fed cattle marketings by quarters for the last 3 years. Compared to previous estimates, current estimates are about 1 million higher for each year.

Table 2. Marketings of fed cattle in 32 states by quarters, 1964-66

Quarter	1964	1965	1966
	- - - thousands - - -		
Jan.-Mar.	4,431	4,752	4,982
Apr.-June	4,753	4,641	5,165
July-Sept.	4,503	4,698	5,189
Oct.-Dec.	4,417	4,627	5,008
Total	18,104	18,718	20,345

Demand for fed beef was high during 1966. A year ago, we projected an 8-percent increase in demand for the first half of 1966 and a slightly smaller increase for the last half. This projection was about right; the yearly demand increase equaled the 8-percent supply increase, resulting in the same average annual price as in 1965.

OUTLOOK FOR 1967

Demand for fed beef will increase again in 1967 but at a slower rate than during the past year. Per capita disposable income also should rise at a slower rate than in 1966; if taxes increase, they will erase part of the gain. Competing food products will be priced lower than beef rather than higher as they were last year. Although cow beef

production will be down, beef imports will substitute for most of this decline. In total, demand should be up 4 or 5 percent—only half the increase enjoyed in early 1966.

On the supply side, fed beef production will be up by more than demand during the first half of 1967. Supply increases will be somewhat less for the last half of the year. Consequently, the price pattern will be the reverse of the 1966 pattern. **However, the average annual price may not be much higher than it was in 1966.** Those high prices may be delayed until 1968!

Table 3 shows the number of steers and heifers on feed by weight groups as reported in USDA's January 1 *Cattle on Feed Report*.

According to this *Report*, depressed beef prices may continue for several months. The heavyweight groups (steers over 900 and heifers over 700) showed a 13-percent increase. The distribution of cattle by areas suggests a 10-percent increase in fed marketings in the north-central states during the first quarter.

Compared to 1966 levels, reported marketing intentions were for a 9-percent increase in the north-central states and a 4-percent increase in the western states. Moreover, a weight increase is now projected at 3 percent. Therefore, increased demand probably can absorb less than one-half this projected supply increase before prices must fall below year-earlier levels.

Working from these demand-supply projections, we come up with a price projection that is 8-12 percent below last year's price. This projection would put Chicago choice steers at \$24-\$25 for the first quarter. If heavy steer marketings are bunched in February, prices could drop to the lowest level since mid-1964. So there might be an extended period of loss for cattle feeders; producers who try to wait it out will again suffer the biggest losses.

Second quarter prices will improve unless average weights continue to increase—it's the same story again. If weights continue increasing through the first quarter and then turn down in the second quarter, some marketings could shift into the second quarter. This situation would help first quarter prices a little. But, compared to the first

quarter, subsequent beef production would be higher due to both heavier weights and larger numbers.

Under these conditions, choice steer prices would show no improvement in the second quarter; the margin between steer and heifer prices would disappear. However, we are hopefully projecting an early reversal in average weights and a \$1 improvement in steer prices compared to a \$1.50 increase in heifer prices over first quarter averages.

Supplies of fed beef may be slightly higher during the second half of the year than was expected previously due to early placement of calves on feed. Kansas, Oklahoma, and Texas pastures are supporting only a fraction as many cattle as usual. Without this pasture demand, many young feeders may get their noses in the feed bunk a few months earlier than usual. Then the slaughter date of these animals would move up from early 1968 to late 1967.

Moreover, the higher number of heifer calves on feed might raise questions about heifer holdback expectations. However, study of placement patterns in individual states suggests that the increase in heifer calves on feed over a year ago is probably related to: (1) feedlot expansion trends in the heifer feeding area of Texas and (2) poor wheat pasture conditions.

Consequently, we still expect heifer slaughter to be below 1966 levels during the last half of 1967 while steer slaughter will be up slightly. This situation would bring choice steers at Chicago over \$27. Sharper increases may be delayed until early 1968.

MANAGEMENT IMPLICATIONS

- Don't expect buying-selling margins to change much in the years ahead. As fed cattle prices move up, feeder prices will move up even faster.

- Consider buying spring replacement cattle early this year. Feeder prices are probably the lowest they will be for the next couple of years.

- For the last time in this weight-price cycle, sell light! (Recommendations may change 3 months from now.)

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Table 3. Number of steers and heifers on feed on January 1 by weight groups, 32 states, 1965-67

Weight group (pounds)	Steers			Heifers		
	1965	1966	1967	1965	1966	1967
	- - - thousands - - -					
Under 500	1,116	1,091	1,069	765	745	802
500-699	1,672	1,698	1,696	872	1,091	1,030
700-899	2,097	2,339	2,635	832	975	1,050
900-1,099	1,767	1,794	2,005	258	261	340
Over 1,099	400	380	448	—	—	—
Total	7,052	7,302	7,853	2,727	3,072	3,222

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