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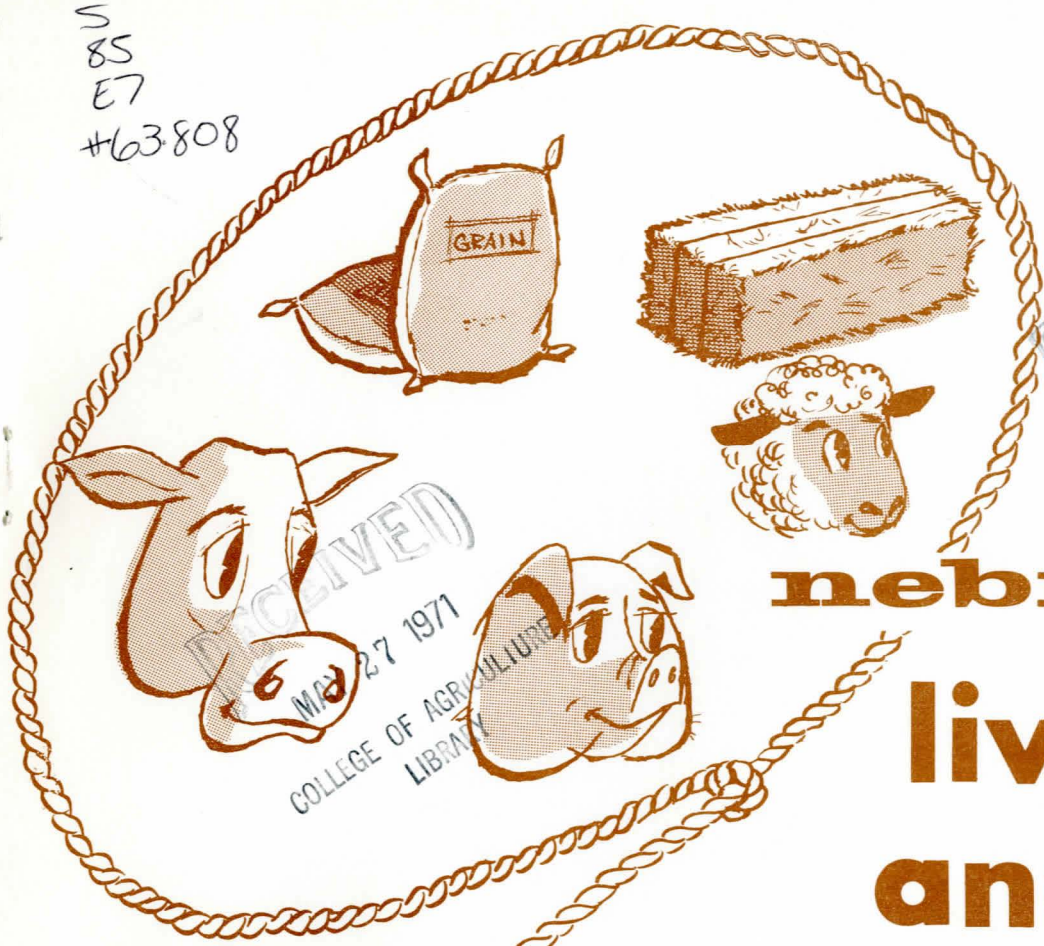

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nebraska livestock and feed roundup for 1963-64

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CONTENTS

Page

Nebraska Livestock and Feed Roundup for 1963-64 1-10

Demand 1

Feed Situation 2

Smaller Total Supply of Feed Grains 2

Local Supplies Also Smaller 4

Protein Feed Supplies 4

Hay Supplies Also Down 5

Prospective Supplies of Beef and Other Red Meats 6

Beef Production 6

Slaughter Prices 7

Feeder Cattle Prices 8

Hog Situation 8

Lamb and Sheep Situation 9

What Can You Afford to Pay for Feeder Cattle? 11-15

Two Kinds of Costs 11

Estimating Variable Costs 11

Tables

1. Feed Concentrate Balance, United States, Year Beginning October, Average 1957-61, Annual 1958-63 3

2. Supplies of Feed Grains for 1963-64 Feeding Season, in Nebraska, Iowa, South Dakota and Kansas 4

3. Supplies of Hay for 1963-64 Feeding Season, in Nebraska, Iowa, South Dakota, Kansas, Colorado and Wyoming 5

4. Cattle on Feed July 1, 1963, with Comparisons 10

5. Cattle Marketing Intentions for July-September, 1963 10

Guides for Estimating Comparative Feed Costs for Eight Different Kinds of Cattle Feeding Enterprises 12

Labor Requirements for Different Kinds of Enterprises 13

Charts 1 through 8 -- Break-Even Feeder Prices 16-23

NEBRASKA LIVESTOCK AND FEED ROUNDUP

FOR 1963-64 1/

DEMAND

The overall economic situation during the first eight months of 1963 has been good. During the second quarter of 1963 industrial production was about 5 percent above the same period in 1962. Production of automobiles was 9 percent above that of a year ago and consumer spending for goods and services was 3 to 4 percent higher. The index of business investments in plant and equipment has been rising and automobile sales have been at a high level.

There are some less optimistic aspects, however. Steel production has been declining since the passing of the labor contract crisis last spring and the rate of business inventory accumulations has also been declining. Prior to the negotiation of the new steel labor contract, steel users had built up their inventories of steel in anticipation of a possible shut down in the steel industry. Most of the decline in inventory accumulations is attributed to the passing of the steel crisis. Unemployment continues to claim about 5 to 6 percent of the civilian labor force.

Looking ahead, it would appear that there is little reason to expect much change in the economic picture provided the railroad strike can be avoided. Present indications are that business investments in plant and equipment will continue to increase and consumers have indicated plans for purchasing more cars, furniture and homes during the second half of 1963 than they did a year ago. If a tax reduction should materialize, this should give an added boost to consumer spending, although it is not expected that this would have much effect on per capita consumption of food.

On the less optimistic side, new orders for machinery and transportation equipment have fallen off and housing starts have dropped from the high level reached in April and May. A prolonged stoppage of railroad activity would disrupt many parts of our economy including various aspects of the beef producing industry. Extensive and prolonged layoff of railroad workers would lessen the demand for beef as well as for other red meats. The longer the time period involved, the more serious the effects. If rail activity were stopped for many days, the results would be particularly serious for metropolitan areas which depend heavily on railroads for food supplies of all kinds.

Because of the seriousness of the consequences, it seems unlikely that the federal government will permit complete stoppage of rail movement to take place. If management and labor cannot get together through arbitration, the federal government is almost certain to take over the operation of the railroads until agreement can be reached. Assuming that this would be the probable course of events, unemployment would be held at a minimum and most of the short run depressive economic effects of the strike could and would be avoided.

Demand for goods and services and especially for food depends largely on consumer spending. In turn, consumer spending depends on employment, population growth, and wage rates. Population can be expected to continue to grow at about $1\frac{1}{2}$ to 2 percent a year and wage rates are expected to continue their upward trend.

1/ Prepared by Philip A. Henderson, Extension Economist, University of Nebraska.

The size of the labor force is due to increase sharply within the next few years as the "war babies" begin reaching employment age. New families and homes will be established and the need for consumer goods and services will be increased. The actual effective demand associated with this increase in labor force will depend on the availability of income producing jobs.

Unless job opportunities can keep pace with the increase in the labor force, the big increase in people of employable age will be reflected in substantial increases in unemployment. Population growth means increased effective demand for food and clothing only if people are employed. Otherwise, food consumption (especially income related foods such as beef) tends to be restricted and demand would not increase as much as the growth in population and labor force would indicate.

During the first 6 months of 1963, total consumer expenditures for food were about 3 percent higher than during the comparable period of 1962. Higher retail food prices (about 1 percent higher) accounted for part of the increased expenditure, but actually very little of this was reflected in higher prices to the farmer. Much of the increase in price went for increased services and increased marketing charges. About half of the increased expenditure represented an increase in the quantity of food used as a result of the growing population. The quantity of food consumed per capita was about the same as in 1962.

FEED SITUATION

Smaller Total Supply of Feed Grains

The total supply of feed grains available for the 1963-64 feeding season is estimated to be about 3 percent smaller than for the preceding year.

The prospective increase in production in 1963 is more than offset by a decrease in carryover (see Table 1). Production of corn in the United States will be nearly 6 percent higher than in 1962. This increase is large enough to more than offset small decreases in the production of the other three feed grains (oats, barley, and grain sorghum).

More cropland was used for the production of feed grains and a larger proportion of these acres was devoted to corn. Yields of all feed grains are expected to be slightly lower than in 1962 on the basis of August 1 estimates.

Increased numbers of grain-consuming animal units during the past year coupled with near record levels of feeding reduced the amount of carryover from 71.8 million tons on October 1, 1962 to an estimated 60.5 million tons on October 1, 1963. Another year of heavy grain utilization is expected to reduce carryover to about 51 million tons by October 1, 1964.

Slightly over 155 million tons of feed grains were fed in 1962-63. This was more than any previous amount and compares with an average of 143.4 million tons during the years 1957-61. The quantity fed has exceeded production in each of the last two years.

The larger consumption reflects both a growing number of grain-consuming animal units and a larger quantity of grain fed per animal unit. The number of grain consuming animal units has been estimated at 176 million during the past feeding season compared with an average of 166 million during the period 1957-61. Concentrates have been fed at relatively heavy rates during each of the past three years.

Table 1. -- Feed Concentrate Balance, United States, Year Beginning October, Average 1957-61, Annual 1958-63.

Item	Average 1957-61	1958	1959	1960	1961	1962 1/	1963 2/
	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Mil. tons
Supply							
Stocks beginning of year 3/	66.9	59.0	67.5	74.6	84.7	71.8	60.5
Production of feed grains:							
Corn	99.5	94.0	107.1	109.4	101.5	102.0	108.1
Oats	18.9	22.4	16.8	18.5	16.2	16.5	15.6
Barley	10.4	11.4	10.1	10.3	9.5	10.3	9.3
Sorghum grains	15.7	16.3	15.6	17.4	13.4	14.3	14.0
Total production	144.5	144.1	149.6	155.6	140.6	143.1	147.0
Imports of feed grains	.6	.4	.5	.5	.4	.3	.3
Wheat and rye fed	1.7	1.6	1.5	1.7	1.9	1.7	1.7
Byproduct feeds fed	27.5	27.2	27.4	28.0	28.8	29.4	29.8
Total supply	241.2	232.3	246.5	260.4	256.4	246.3	239.3

1/ Preliminary.

2/ Preliminary estimates based on indications in August, 1963.

3/ Stocks of corn and sorghum grains in all positions on October 1, and oats and barley on July 1.

Exports of feed concentrates (feed grains, wheat, rye, oilseed cake and meal, animal protein feeds, and other byproduct feeds) have amounted to more than 17 million tons in each of the past two years. This compares with an average of 13 million tons during 1957-61. Exports are expected to amount to approximately 17 million tons again in 1963-64.

Imports of feed grains amount to less than half a million tons.

Local Supplies Also Smaller

Nebraska's feed supplies are also expected to be smaller for the coming feeding season. Although the amount of feed grains in storage was fully as large as it was a year ago (July 1), drouth has caused more than a 14 percent reduction in production as compared to 1962, according to August 1 estimates. As a result, total supplies of feed grains in Nebraska are estimated to be about 7 percent smaller than last year.

Table 2. - Supplies of Feed Grains for 1963-64 Feeding Season, in Nebraska, Iowa, South Dakota and Kansas.

	In Storage		Production		Total Supply	
	July 1 1962 Mil. tons	July 1 1963 Mil. tons	1962 Mil. tons	1963a/ Mil. tons	1962 Mil. tons	1963a/ Mil. tons
Nebraska	12.4	12.4	12.2	10.5	24.6	22.9
South Dakota	3.2	3.2	5.3	5.2	8.5	8.4
Iowa	20.1	17.3	22.9	24.8	43.0	42.1
Kansas	4.1	3.9	5.9	5.2	10.0	9.1
Total	39.8	36.8	46.3	45.7	86.1	82.5

a/ Preliminary estimates.

Similarly, total supplies of feed grains are also slightly smaller in South Dakota, Iowa, and Kansas (See Table 2).

Protein Feed Supplies

Approximately half of the total amount of high protein feeds fed is produced from soybeans. Cottonseed cake and meal account for another 14 percent of the total, and tankage and meat meal, nearly 10 percent.

Production of soybeans is expected to be 7 percent higher than in 1962 but cotton production is expected to be 6 percent less. Production of tankage and meat meal will be up in line with increased slaughter of meat animals.

Exports of oilseed meals were at record levels this year. They are expected to continue at a high level during 1963-64.

Prices of soybean meal this year have been the highest since 1953-54. In view of increasing livestock numbers, continued high exports and smaller crops of cotton and flax, prices of high protein feeds and expected to hold at a high level again in 1963-64.

Hay Supplies Also Down

Total supplies of hay in the United States are estimated to be 6 percent smaller for the 1963-64 feeding year than they were during the previous year. Production was enough smaller to more than offset the larger carryover.

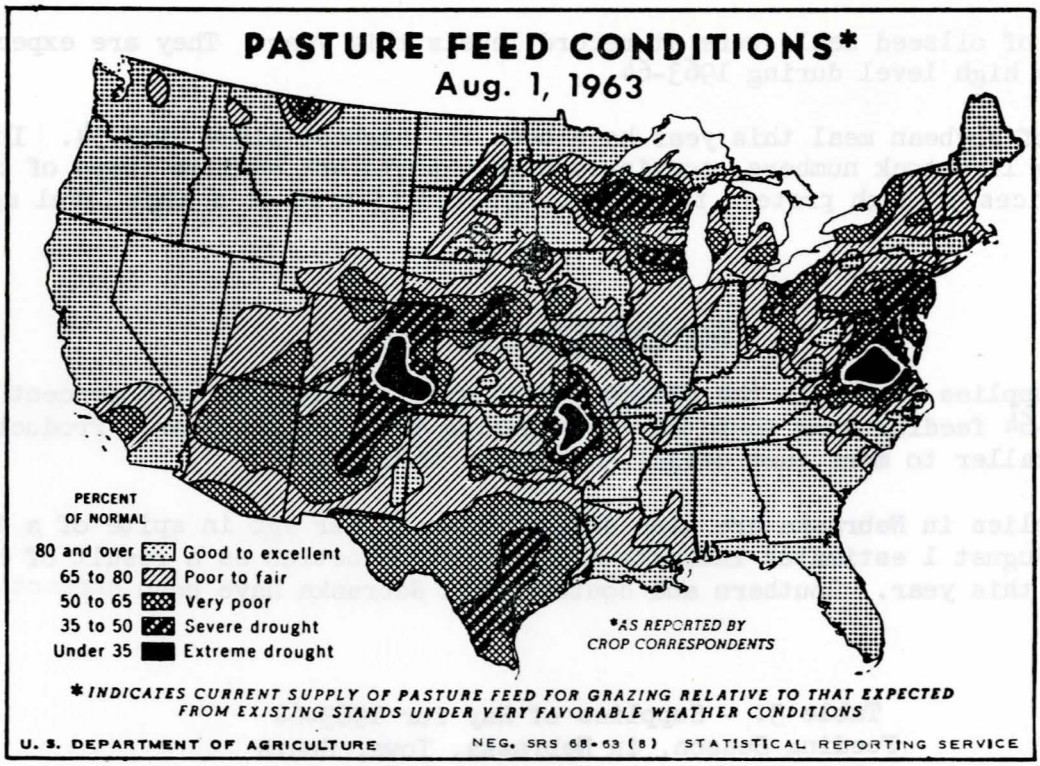
Hay supplies in Nebraska are also smaller than a year ago in spite of a larger carryover. August 1 estimates indicate a 7 percent reduction as a result of a smaller crop this year. Southern and southwestern Nebraska have been hardest hit by drouth.

Table 3. - Supplies of Hay for 1963-64 Feeding Season, in Nebraska, Iowa, South Dakota, Kansas, Colorado and Wyoming.

	Carryover		Production		Total Supplies	
	May 1 1962 1000 tons	May 1 1963 1000 tons	1962 1000 tons	1963a/ 1000 tons	1962 1000 tons	1963a/ 1000 tons
Nebraska	1,023	1,806	7,222	5,748	8,245	7,554
South Dakota	808	2,143	6,493	4,954	7,301	7,097
Iowa	1,357	1,991	8,295	6,792	9,652	8,783
Kansas	683	902	4,509	3,491	5,192	4,393
Colorado	469	485	3,030	2,471	3,499	2,956
Wyoming	197	406	1,563	1,511	1,760	1,917
Total	4,537	7,733	31,112	24,967	35,649	32,700

a/ Preliminary estimates.

Hay supplies are down from a year ago in all states surrounding Nebraska except Wyoming on the basis of August 1 figures (See Table 3). Kansas and Colorado appear to have been particularly hard hit. Eastern Colorado and western Kansas have been particularly dry.



PROSPECTIVE SUPPLIES OF BEEF AND OTHER RED MEATS

Total production of red meat was 4 percent greater during the first 6 months of 1963 than during the same period last year. Beef production accounted for most of the increase. It was nearly 6 percent larger than a year ago and pork production was 4 percent larger. Output of veal, lamb, and mutton was smaller than a year ago.

Present indications are that there will be a further increase in the production of red meats in 1964.

Beef Production

On July 1, cattle feeders in the 28 principal cattle feeding states reported 11 percent more cattle on feed than a year ago. The North Central region had 13 percent more on feed while the 11 Western states reported 7 percent more. (See Table 4 for distribution by weight groups.)

About 55 percent of the cattle on feed July 1 will be marketed during the three-month period July to September according to the July 1 survey of marketing intentions. This would be 9 percent more than were marketed during the same months in 1962 (Table 5). Most of this increase would be from feedlots in the North Central states.

If farmers continue to market their cattle at heavier weights as they did during the first six months of 1963, the actual tonnage of beef going to market would be up more than 9 percent. Average live weights were 13 pounds heavier during the first six months of 1963 than in 1962. This amounts to more than a 1 percent increase in production and would increase this year's tonnage to 10 percent more than a year ago.

Marketings during the October, November and December period will depend on the number of cattle going direct to slaughter from pastures and ranges as well as the number of fed cattle marketed. The number going directly to slaughter is not expected to be unseasonably large.

Cow slaughter is not expected to be unusually large this fall. As long as grass and sufficient winter feed is available and ranchers anticipate feeder calf prices equal to or near those of 1962, breeding herds are not apt to be reduced.

Statistics on the number of cattle placed on feed during July are not available for all 28 states. August 1 figures show a 70 percent increase in the number of cattle placed on feed in Arizona, Colorado, and California during the month of July compared with a year ago. With the exception of heavy yearlings and 2 year olds which may go on feed late this summer, marketings of fed cattle during the last quarter of this year will be determined largely by the number of cattle on feed July 1. If farmers actually market as many cattle as they indicated by their intentions, the number of cattle on feed July 1 headed for market during the last quarter appears to be 10 to 15 percent larger than a year ago.

Beef production after the first of the year will depend on the number of cattle available for feeding, how many are actually fed out, and the weights at which cattle are marketed. Adverse weather conditions over a wide area during the summer of 1964 could force large numbers of cattle to market in a short period of time and cause a serious break in prices of lower grade cattle.

The number of cattle available for feeding (but not yet in feedlots) on July 1 has been estimated at about 26 million head, or approximately 6 percent more than a year ago. This does not take into consideration imports from Mexico or Canada. During the first 6 months of 1963, imports of feeder cattle were 3 percent smaller than in 1962.

On the basis of the number of cattle available for feeding and the trend toward feeding out a larger proportion of cattle produced, it appears that marketings after the first of the year can be expected to show increases over 1963. Beef production in 1964 may be 5 to 10 percent above that of 1963. If the trend toward feeding a larger and larger proportion of total available beef animals is continued and feeders continue to feed to comparatively heavy weights, the increase in production of beef will be more like 10 percent. On the other hand, if the poor financial outcome from cattle feeding during the past two years causes a cutback in the number of cattle fed out in 1963-64, beef production would show a smaller increase.

Less favorable beef-corn price relationships and the relatively narrow margin between prices of prime and choice cattle may tend to discourage feeding to heavier weights and thus lessen the increase in beef production.

Everything considered, however, it seems probable that beef production in 1964 will exceed that of 1963 by at least 5 percent.

Slaughter Prices

It now appears that prices of slaughter cattle during the last quarter of 1963 are likely to be $3 to $5 lower than a year ago. The increase in population and in per capita income is not considered large enough to make up for the larger marketings of beef. Marketings of heavy cattle will be relatively large compared with a year ago. Consequently, premiums for heavy cattle are not anticipated this fall.

Prospects for slaughter prices in 1964 indicate steady to weak prices compared with those of 1963. The increase in population and the anticipated increase in income per capita will not be sufficient to offset the increase in supply of slaughter beef. Prices for the year may average as much as $1.00 to $1.25 lower. How prices will compare at any particular time of year will depend on whether cattle feeders market cattle in an orderly fashion as soon as they reach marketable condition and grade or whether they tend to hold them for additional weight gains or in anticipation of improved prices.

Feeder Cattle Prices

So far this year, prices of feeder cattle have not dropped as much as prices of slaughter cattle. With feed prices likely to be as high or higher than they were during this past feeding season, and with profits from cattle feeding at a low level during the last two years, one would expect some drop in feeder cattle prices this fall.

There are some factors which serve to bolster prices of feeder cattle, however. The trend toward more and more year round feeding and relatively large investments in feedlot equipment has served to stabilize the demand for feeder cattle from year to year. The fixed costs associated with such operations make it important that cattle feeding be carried on each year as long as there is promise of any return over and above variable costs.

With the "No" vote on the wheat referendum, there is a definite probability of an expanded wheat acreage in the Plains states this fall. If late summer and fall rains occur to get wheat off to a good start, the demand for cattle to go on wheat pastures will be an important factor in holding the price of calves and light yearlings up. Anticipation of feeding more wheat in 1964 may add to the demand for feeder cattle this fall also.

Apparently cattle producers in most areas have sufficient grass and winter feed so that they are not under severe pressure to sell. The drouth may result in the ensiling of more crops than usual. This could also add to the demand for feeder cattle.

At the present time, it would appear that feeder cattle might sell for a dollar or two a hundred less than they did in 1962. Developments in the wheat pasture area could alter the picture, however.

With slaughter prices expected to be some lower and grain prices some higher, cattle feeders will need to buy their feeders at a lower price in order to fare as well as they did in 1962.

HOG SITUATION

Hog prices have been good throughout the summer of 1963. Despite very favorable hog-corn ratios during the summer and fall of 1962, hog producers held winter and spring farrowings to only 1 percent above those of a year earlier. Late fall and winter farrowings were apparently in line with increased demand since prices were nearly the same in 1963 as they were in 1962.

Marketings during the remainder of 1963 will come largely from farrowings during March through June. The number of sows farrowing in March was a little more than 6 percent lower than in 1962 but April and May farrowings were up 5 percent and 3 percent respectively.

These figures would indicate that prices will not drop as soon this fall as they did last year. Prices in November and December could be a bit lower than they were a year ago, however. The difference should be small.

Farmers have indicated intentions of farrowing 1 percent more sows during the months of June through November. If these intentions are carried out, hog prices should be as high or higher during the first six months of 1964 as they were during 1963.

Producers in 10 North Central states indicated intentions to increase farrowings by 3 percent during June, July, and August with no increase during the next three months. Since farrowings in these states account for more than 75 percent of total farrowings, these intentions (if carried out) would indicate added pressure on hog prices during the months of December through April with comparatively strong prices beginning about May. Demand should be enough better to offset most of the prospective increase in supplies.

What happens to hog prices during the last half of 1964 will depend largely on the size of the spring pig crop next year. The hog-corn ratio has not been as good during the first seven months of 1963 as it was in 1962. There seems to be little reason to expect this relationship to improve very much. On the basis of past history, the spring pig crop in 1964 can be expected to be smaller than that of 1963. The change is not likely to be large, however.

Prices of hogs during the latter half of 1964 should be fully as strong as they were in 1963.

LAMB AND SHEEP SITUATION

The 1963 lamb crop was 3 percent smaller than that of 1962, and the number of sheep on farms as of January 1, 1964 is expected to be about 1 percent smaller than at the beginning of 1963. Commercial slaughter of sheep and lambs during the first six months of 1963 was 9 percent smaller than during the same months in 1962, according to USDA. Slaughter during the remainder of 1963 is expected to be 6 to 8 percent smaller than a year ago.

Lamb prices have been strong so far in 1963. During the remainder of this year, prices are expected to follow about the same pattern as a year ago at approximately the same levels.

Table 4. - Cattle on Feed July 1, 1963, with Comparisons.

	Under 500 pounds		500-699 pounds		700-899 pounds		900-1099 pounds		1100 pounds and over	
	Number of Head	Percent of July 1 1962	Number of Head	Percent of July 1 1962	Number of Head	Percent of July 1 1962	Number of Head	Percent of July 1 1962	Number of Head	Percent of July 1 1962
	(1000's)		(1000's)		(1000's)		(1000's)		(1000's)	
N. C. States	90	87	908	104	2084	116	1022	117	310	121
Western States	124	151	457	100	772	99	524	114	107	141
28 States	305	124	1494	103	2989	111	1608	115	434	125

Table 5. - Cattle Marketing Intentions for July-September, 1963.

	Number of Head	1963 as Percent of 1962
	(1000's)	
N. C. States	2423	112
Western States	1119	105
28 States	3792	109

WHAT CAN YOU AFFORD TO PAY FOR FEEDER CATTLE? 1/

The cattle feeder is a businessman, and like every other businessman, he expects a reasonably good return for the use of his capital and for his labor and management. In planning his business, he needs to know as accurately as possible what he can get for his finished product and what it will cost him to produce such a product. Armed with this information, he is in a position to determine the maximum price he can afford to pay for the "raw material," the feeder animal.

TWO KINDS OF COSTS

Costs of production can be divided into fixed costs and variable costs. Fixed costs (depreciation, interest, taxes, and insurance on the improvements and equipment) do not vary with the number of cattle fed in any particular year. They are largely determined by the size and kind of lots and equipment used for cattle feeding. The annual costs of maintaining these facilities tend to be about the same whether facilities are used to full capacity or not. In fact, these costs would occur even if lots were left empty. Variable costs are those which vary in proportion to the number of cattle fed. These costs include the cost of the feeder animal, feed, taxes on the animal itself, veterinary and medicine, death loss, interest on the money invested in animals, and other operating expense such as buying and selling costs. If labor is hired specifically for cattle feeding or if the operator has alternative job opportunities, labor should also be considered as a variable cost.

In the long run, all costs of production must be met if the cattle feeder is to stay in business. Fences, bunks, water systems, etc., must be replaced as they wear out. In the short run (any one bunch of cattle or in any one year), cattle prices may be such that it would be impossible to cover all costs. There is no justification, however, for putting salable feed into an animal or for spending money for protein, medicine, or anything else unless it is fairly certain that the income will be more than enough to cover such costs. A "break even" price (as used here) would be the amount a feeder could pay for feeder cattle and still pay interest on the investment in the animals as well as other variable costs.

If the cattle feeder can see his way clear to make enough to pay for all variable costs (including the cost of the animal) plus a little more (but not enough to cover all fixed costs), he is financially better off to make use of lots, bunks, and other facilities than to let them stand idle. It may be, of course, that there are other ways of using these facilities that would be more profitable than feeding the particular kind of cattle to which he is accustomed and/or which he originally had in mind. If so, the use that would return the most money for the facilities and for his labor and management would be the logical choice.

If prices of feeder cattle appear high, does it seem likely that they could be bought at a lower price later on? Will delayed marketings mean a higher or a lower sale price? What effect would a delay in buying have on the time of marketing and expected income in relation to costs? Would savings which might be made from a delayed purchase be offset by inability (either because of time or weather) to make use of cornstalks or other low cost roughages to cheapen gains?

ESTIMATING VARIABLE COSTS

Feed costs make up a large proportion of the total costs of feeding cattle (60-70 percent). The following table indicates the approximate amount of feed equivalents required per animal for eight different kinds of cattle feeding enterprises.

1/ Prepared by Philip A. Henderson, Extension Economist, University of Nebraska

Guides a/ for Estimating Comparative Feed Costs for Eight Different Kinds of Cattle Feeding Enterprises.

	Corn (equiv.) (bu.)	Alfalfa Hay (tons)	Corn Silage (or equiv.) (tons)	Protein (lbs.)	Pasture-Days	Average Daily Gain (lbs.)
425# steer calves fed grain 285 days	63	.6	--	180	40	2.1
425# steer calves fed liberal roughage 330 days	40	.5	2.5	285	40	1.8
425# steer calves fed liberal roughage plus pasture 365 days	36	.5	2.1	150	120	1.7
400# heifer calves fed grain 225 days	45	.6	--	150	--	2.0
650# yearling heifers fed grain 150 days	38	.5	--	60	--	2.1
650# yearling steers fed maximum roughage 180 days	15	--	4.0	300	--	2.2
700# yearling steers fed grain 165 days	46	.9	--	90	--	2.4
700# yearling steers fed liberal roughage 195 days	36	--	3.8	315	--	2.2

a/ Provided by Paul Guyer, Extension Animal Husbandman.

Approximate relative labor requirements for these same kinds of feeding enterprises are shown in the following table.

Kind of feeding enterprise	Number of head in lot		
	40 1/	120 1/	1000 2/
		Hours per Animal	
425# steer calves fed grain 285 days	8 3/4	6	2 1/2
425# steer calves fed liberal roughage 330 days	10 3/4	7	2 3/4
425# steer calves fed liberal roughage plus pasture 365 days	11	7	3
400# heifer calves fed grain 225 days	6	4 1/2	2
650# yearling heifers fed grain 150 days	4 1/2	3 1/4	1 1/4
650# yearling steers fed maximum roughage 180 days	4 1/4	4	1 1/2
700# yearling steers fed grain 165 days	5	3 1/2	1 1/2
700# yearling steers fed liberal roughage 195 days	6 1/4	4 1/4	1 3/4

1/ These labor requirements are based on "Labor Used in Cattle Feeding," Station Bulletin 451, March 1960, by R. G. Johnson and T. R. Nodland, University of Minnesota. Included are:

1. Hay feeding of bales stored nearby.
2. Grain feeding with a wagon and shovel.
3. Silage feeding from an upright silo.
4. Bedding.
5. Watering and observing.
6. Care and treatment of sick animals.
7. Pasturing.
8. Feed grinding.
9. Manure disposal.
10. Miscellaneous.

2/ These labor requirements are based on "Improved Methods and Facilities for Commercial Cattle Feedlots," MRR No. 517, Transportation and Facilities Research Division, AMS, USDA, Washington 25, D. C. The 1000-head lot used a self-mixing, self-unloading truck method of feeding.

The amounts of labor required to handle 250 or 500 head under each of these specific kinds of cattle feeding operations are not available. Preliminary data obtained in a survey of cattle feeders in eastern Nebraska indicate that labor requirements per head may be almost as small for operations feeding 500 head as they are for operations feeding 1000 head (see following figures and those in preceding table). Apparently most of the advantage to be gained in labor efficiency is realized by cattle feeders feeding around 4 to 5 hundred head.

Number of head	Average amount of labor used per head (hours)
100-174	5.9
175-274	4.1
400-549	2.2

An illustration of a method for determining the maximum price that could be paid for feeder cattle if all variable costs are to be covered is shown in the example budget which follows. The costs used in this example are not intended to fit a particular feeding operation and must be adjusted to reflect your situation. Space is provided for this purpose.

Income and Credits				Your Figures
Sale of finished animal				
1,100# @	$24.00 =		$264.00	
Value of Manure recovered				
2.5 tons @	2.00		5.00	
	Total		$269.00	
Variable Costs				
Feed costs				
46 bu. corn @ $1.25 1/	= 57.50			
90# protein @ $4.00	= 3.60			
0.9 T. alfalfa @ $20	- 18.00			
			$ 79.10	
Marketing costs				
1100# @ 60¢/cwt.			6.60	
Cost of buying feeder				
Commission	2.00			
Vaccination	.50			
Trucking	1.00			
			3.50	
Labor				
3.5 hours @ $1.25			4.37	
Taxes			2.75	
Interest on feed				
$\frac{\$79.10}{2} \times \frac{165 \text{ days}}{365 \text{ days}}$ @ 6% =			1.07	

1/ For purchased feed use the price delivered to the farm. For home produced feed use the cash value at the farm.

Miscellaneous variable costs

	Per Day
Veterinary	$.002
Salt and Min.	.002
Rep. and Misc.	.006
	$.010 X 165 days = $1.65

Total variable non-feeder costs other than death loss and interest on animal $99.04

Amount left to cover (1) death loss, (2) interest on investment in animal, and (3) cost of animal ($269 minus $99.04) $169.96

Amount available for purchase of animal1/ $163.11

Maximum (break-even) price per cwt., that can be paid if all variable costs (including death loss and interest on animal investment) are to be met

$\frac{\$163.11}{700}$ (purchase wt.) $23.30

Fixed costs (not considered in above figures) $1-4/cwt.

1/ The 169.96 must be divided between the three items as follows:

Interest for 1965 days = $\frac{165}{365}$ X 6% = 2.7%

Death loss	1.5
Cost of feeder	100.0
Total	104.2%

$\frac{\$169.96}{104.2} = \$163.11$

In the tables which follow, the maximum prices that could be paid for feeder cattle have been calculated by the method illustrated using the quantities of feed and labor indicated in the preceding tables. To illustrate how the tables can be used, let's assume that your feeding operation is similar to the first (Chart 1) and you expect to get $24.00 a hundred for your finished cattle. Your feed costs are estimated at $20.00 per hundred pounds of gain and you will be feeding approximately 120 head. On the basis of these anticipated costs and returns, the maximum price which you could pay for 425 lb. steer calves of good to choice grade would be $23.30 (Chart 1, $24 slaughter price column, 7th line down). This would permit you to pay variable costs equal to those shown in the example budget but <u>it would not allow for anything to cover fixed costs</u>.

Annual charges for fixed costs may amount to as much as $1 to $4 per cwt. of gain. They vary considerably from one situation to another, depending on the kind of feeding facilities and the number of cattle fed. The higher the investment in lots and equipment per steer, the higher the annual fixed costs will be. Highly mechanized operations have higher fixed costs; in order to keep these fixed costs at a minimum (per hundred pounds of beef produced), it is important that such facilities be fully used.

Chart 1 425# GOOD TO CHOICE CALVES FED LIBERAL GRAIN 285 DAYS, SOLD AT 1025# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Numbers of Head Per Lot When All Variable Costs (Including 3% Death Loss, Interest at 6% Per Year and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Prices Per Cwt. $20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$24.30	$28.80	$33.30	$37.80	$42.30	$46.70
	16.00	19.00	23.40	27.90	32.40	36.90	41.40
	20.00	13.60	18.10	22.60	27.00	31.50	36.00
	24.00	8.20	12.70	17.20	21.70	26.20	30.60
120	$12.00	$25.10	$29.60	$34.00	$38.50	$43.00	$47.50
	16.00	19.70	24.20	28.70	33.20	37.60	42.10
	20.00	14.40	18.80	23.30	27.80	32.30	36.80
	24.00	9.00	13.50	17.90	22.40	26.90	31.40
1000	$12.00	$26.00	$30.50	$35.00	$39.50	$44.00	$48.40
	16.00	20.70	25.20	29.60	34.10	38.60	43.10
	20.00	15.30	19.80	24.30	28.70	33.20	37.70
	24.00	9.90	14.40	18.90	23.40	27.80	32.30

Chart 2 425# GOOD TO CHOICE CALVES FED LIBERAL ROUGHAGE 330 DAYS, SOLD AT 1025# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Numbers of Head Per Lot When All Variable Costs (Including 3% Death Loss, Interest at 6% Per Year, and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Prices Per Cwt.					
		$20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$23.40	$27.90	$32.40	$36.80	$41.20	$45.70
	16.00	18.10	22.60	27.00	31.40	35.90	40.40
	20.00	12.80	17.20	21.70	26.10	30.60	35.00
	24.00	7.40	11.90	16.30	20.80	25.20	29.70
120	$12.00	$24.50	$28.90	$33.40	$37.80	$42.30	$46.70
	16.00	19.10	23.60	28.00	32.50	36.90	41.40
	20.00	13.80	18.20	22.70	27.10	31.60	36.00
	24.00	8.40	12.90	17.30	21.80	26.20	30.70
1000	$12.00	$25.60	$30.10	$34.50	$39.00	$43.40	$47.90
	16.00	20.30	24.70	29.20	33.60	38.10	42.50
	20.00	14.90	19.40	23.80	28.30	32.70	37.20
	24.00	9.60	14.00	18.50	22.90	27.40	31.80

Chart 3 425# GOOD TO CHOICE CALVES FED LIBERAL ROUGHAGE PLUS PASTURE 365 DAYS, SOLD AT 1025# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Number of Head Per Lot When All Variable Costs (Including 3% Death Loss, Interest at 6% per year, and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Price Per Cwt. $20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Price Per Cwt.					
40	$12.00	$23.10	$27.60	$32.00	$36.40	$40.80	$45.30
	16.00	17.80	22.20	26.70	31.10	35.50	40.00
	20.00	12.50	16.90	21.30	25.80	30.20	34.60
	24.00	7.10	11.60	16.00	20.40	24.80	29.30
120	$12.00	$24.20	$28.60	$33.10	$37.50	$41.90	$46.40
	16.00	18.90	23.30	27.70	32.20	36.60	41.00
	20.00	13.60	18.00	22.40	26.80	31.30	35.70
	24.00	8.20	12.60	17.10	21.50	25.90	30.40
1000	$12.00	$25.30	$29.70	$34.20	$38.60	$43.00	$47.40
	16.00	20.00	24.40	28.80	33.20	37.70	42.10
	20.00	14.60	19.10	23.50	27.90	32.40	36.80
	24.00	9.30	13.70	18.20	22.60	27.00	31.40

Chart 4 400# GOOD TO CHOICE HEIFER CALVES FED LIBERAL GRAIN 225 DAYS, SOLD AT 850# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Number of Head Per Lot When All Variable Costs (Including 3% Death Loss, Interest at 6% Per Year, and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Prices Per Cwt.					
		$20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$23.30	$27.30	$31.30	$35.30	$39.30	$43.30
	16.00	19.00	23.00	27.00	31.00	35.00	39.00
	20.00	14.70	18.70	22.70	26.70	30.70	34.70
	24.00	10.40	14.40	18.40	22.40	26.40	30.40
120	$12.00	$23.90	$27.90	$31.90	$35.90	$39.90	$43.90
	16.00	19.60	23.60	27.60	31.60	35.60	39.60
	20.00	15.30	19.30	23.30	27.30	31.30	35.30
	24.00	11.00	15.00	19.00	23.00	27.00	31.00
1000	$12.00	$24.60	$28.60	$32.60	$36.60	$40.60	$44.60
	16.00	20.40	24.34	28.30	32.30	36.30	40.30
	20.00	16.10	20.00	24.00	28.00	32.00	36.00
	24.00	11.80	15.80	19.80	23.70	27.70	31.70

Chart 5 650# GOOD TO CHOICE YEARLING HEIFERS FED GRAIN INTENSIVELY 150 DAYS, SOLD AT 950# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Numbers of Head Per Lot When All Variable Costs (Including 1½% Death Loss, Interest at 6% Per Year, and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Prices Per Cwt. $20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$20.70	$23.50	$26.30	$29.10	$31.90	$34.70
	16.00	18.90	21.70	24.50	26.30	30.10	32.90
	20.00	17.10	19.90	22.70	25.50	28.30	31.10
	24.00	15.30	18.10	20.90	23.70	26.50	29.40
120	$12.00	$20.90	$23.70	$26.50	$29.40	$32.20	$35.00
	16.00	19.10	21.90	24.70	27.60	30.40	33.20
	20.00	17.30	20.10	22.90	25.80	28.60	31.40
	24.00	15.50	18.30	21.10	24.00	26.80	29.60
1000	$12.00	$21.30	$24.10	$26.90	$29.70	$32.50	$35.30
	16.00	19.50	22.30	25.10	27.90	30.70	33.60
	20.00	17.70	20.50	23.30	26.10	28.90	31.80
	24.00	15.90	18.70	21.50	24.30	27.10	30.00

Chart 6 650# MEDIUM AND COMMON FEEDER STEERS FED MAXIMUM ROUGHAGE 180 DAYS, SOLD AT 1050# AND STANDARD AND GOOD GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Numbers of Head Per Lot When All Variable Costs (Including 1½% Death Loss, Interest at 6% Per Year and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Price Per Cwt. $20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$21.70	$24.80	$27.90	$31.00	$34.10	$37.20
	16.00	19.30	22.40	25.50	28.60	31.70	34.80
	20.00	16.90	20.00	23.10	26.20	29.30	32.40
	24.00	14.50	17.60	20.70	23.80	26.90	30.00
120	$12.00	$21.70	$24.80	$27.90	$31.00	$34.10	$37.20
	16.00	19.40	22.40	25.60	28.60	31.80	34.80
	20.00	17.00	20.10	23.20	26.30	29.40	32.50
	24.00	14.60	17.70	20.80	23.90	27.00	30.10
1000	$12.00	$22.20	$25.30	$28.40	$31.50	$34.60	$37.70
	16.00	19.80	22.90	26.00	29.10	32.20	35.30
	20.00	17.40	20.50	23.60	26.70	29.80	32.90
	24.00	15.00	18.10	21.20	24.30	27.40	30.50

Chart 7 700# GOOD TO CHOICE YEARLING STEERS FED GRAIN INTENSIVELY 165 DAYS, SOLD AT 1100# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Numbers of Head Per Lot When All Variable Costs (Including 1½% Death Loss, Interest at 6% Per Year and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Price Per Cwt. $20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$21.40	$24.40	$27.40	$30.40	$33.40	$36.40
	16.00	19.10	22.10	25.10	28.20	31.20	34.20
	20.00	16.90	19.90	22.90	25.90	28.90	32.00
	24.00	14.70	17.70	20.70	23.70	26.70	29.70
120	$12.00	$21.60	$24.60	$27.60	$30.60	$33.60	$36.60
	16.00	19.40	22.40	25.40	28.40	31.40	34.40
	20.00	17.20	20.20	23.30	26.20	29.20	32.20
	24.00	14.90	18.00	21.00	24.00	27.00	30.00
1000	$12.00	$21.90	$25.00	$28.00	$31.00	$34.00	$37.00
	16.00	19.70	22.70	25.70	28.80	31.80	34.80
	20.00	17.50	20.50	23.50	26.50	29.50	32.60
	24.00	15.30	18.30	21.30	24.30	27.30	30.30

Chart 8 700# GOOD TO CHOICE FEEDER STEERS FED LIBERAL ROUGHAGE 195 DAYS, SOLD AT 1150# AND CHOICE GRADE

Approximate Break-Even Feeder Prices for Various Slaughter Prices, Feed Costs Per Hundredweight of Gain, and Numbers of Head Per Lot When All Variable Costs (Including 1½% Death Loss, Interest at 6% Per Year and Wages at $1.25 Per Hour) are Covered

Number of Head Per Lot	Feed Cost/Cwt. of Gain	Slaughter Price Per Cwt. $20.00	$22.00	$24.00	$26.00	$28.00	$30.00
		Break-Even Feeder Price Per Cwt.					
40	$12.00	$21.50	$24.60	$27.80	$30.90	$34.00	$37.20
	16.00	19.00	22.10	25.20	28.40	31.50	34.70
	20.00	16.50	19.60	22.80	25.90	29.00	32.20
	24.00	14.00	17.10	20.30	23.40	26.60	29.70
120	$12.00	$21.80	$25.00	$28.10	$31.20	$34.40	$37.50
	16.00	19.30	22.40	25.60	28.70	31.90	35.00
	20.00	16.80	20.00	23.10	26.20	29.40	32.50
	24.00	15.40	17.60	20.60	23.80	36.90	30.00
1000	$12.00	$22.20	$25.40	$28.50	$31.60	$34.80	$37.90
	16.00	19.70	22.90	26.00	29.20	32.30	35.40
	20.00	17.20	20.40	23.50	26.70	29.80	33.00
	24.00	14.80	17.90	21.00	24.20	27.30	30.50