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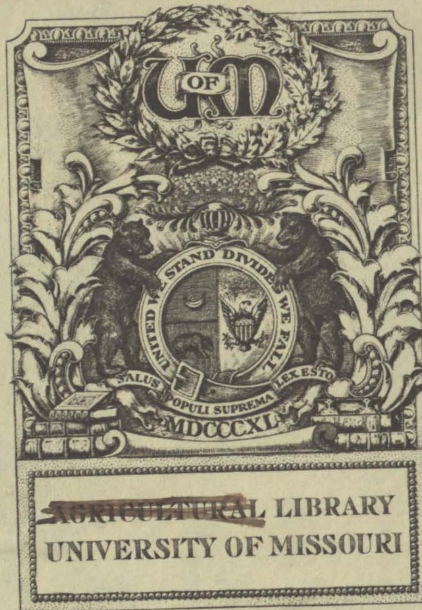


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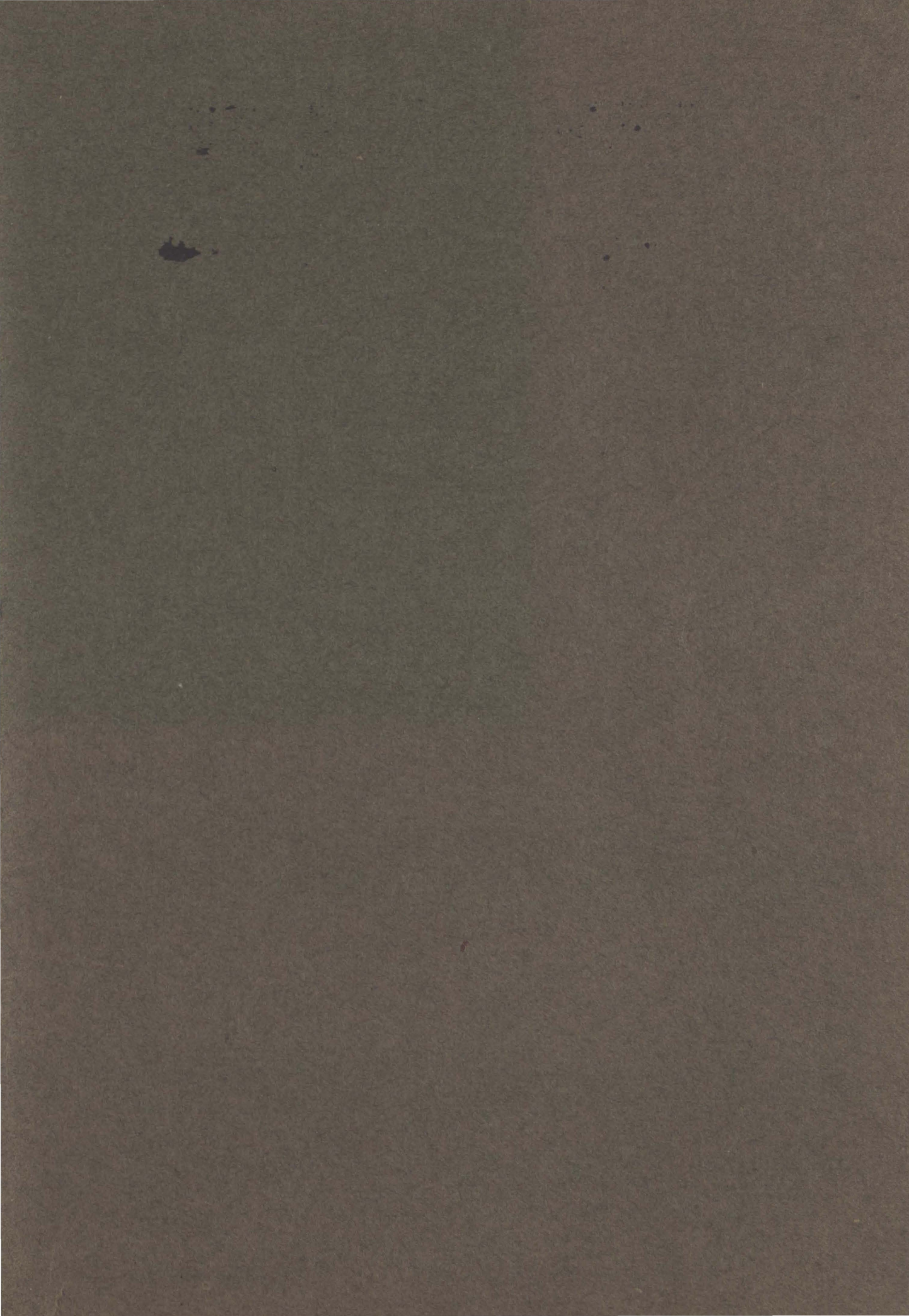
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Conner Melbourne Long

M.S. Degree in Agriculture





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XL85

## CATTLE PRODUCTION.

The Cost in Missouri of producing a Steer Ready for  
the Feed Lot.

If one desires to know the cost of making a locomotive, he would not think of going to any one other than a locomotive manufacturer. If one wishes to know the cost of constructing a building he goes to a contractor. Desiring to know the cost of producing a steer, accordingly I have gone to the producer of such animals, the farmer.

It is a fairly easy thing for the engine maker to figure out the cost of making a given engine for the price of steel is about constant and Trade's Unions fix the price of labor, hence to get the cost is merely a mathematical problem. Neither is it very difficult for a contractor to figure the cost of a building when the dimensions are given. For, like the locomotive builder, his materials are about constant and the price of labor fixed.

It might seem to some that still easier is the task of the farmer in figuring the cost of a steer, but such is not the case. Really he has a much more difficult problem in figuring the cost of producing an animal worth at most only a few dollars than has the engineer or the contractor in arriving at the cost of an engine or a building worth several thousand dollars. The farmer's task is next to impossible so varied are the kinds of feed used and so changeable are their values. Then it is difficult to tell just what per cent of the time of his workmen is given to cattle





production so varied are the industries he carries on. And when a man thinks he has arrived at the solution of the problem once for all, a change in the kind of season renders his figures valueless for the next year and perhaps for years to come. Then again the cost for one man is not a good criterion of the cost for his neighbor for just over the fence in his neighbor's field entirely different kinds of feeds and methods may be used which make the cost altogether different.

It is with a full understanding of these difficulties that I have begun the task of collecting data on this subject. I shall have to rely almost entirely upon the data obtained by sending out inquiries to the farmers since little or no work has been done heretofore on this subject.

#### Scope of the Investigation,

Because of the difficulty in determining the cost of producing a steer it ~~would~~<sup>will</sup> take a great number of opinions to be able to get a figure that is anything like applicable to general conditions in Missouri. Accordingly about six hundred copies of the accompanying set of questions were sent to the leading cattle growers of the State. Out of this number about one hundred and sixty replies were received from forty-five different counties. This well represents the cattle producing area of Missouri, since all but seven of the counties north of the Missouri river responded and all but four south, outside of the Ozark Region\*. These answers<sup>x</sup> represent a total of about **2511** years of experience in handling about **178967** cattle.

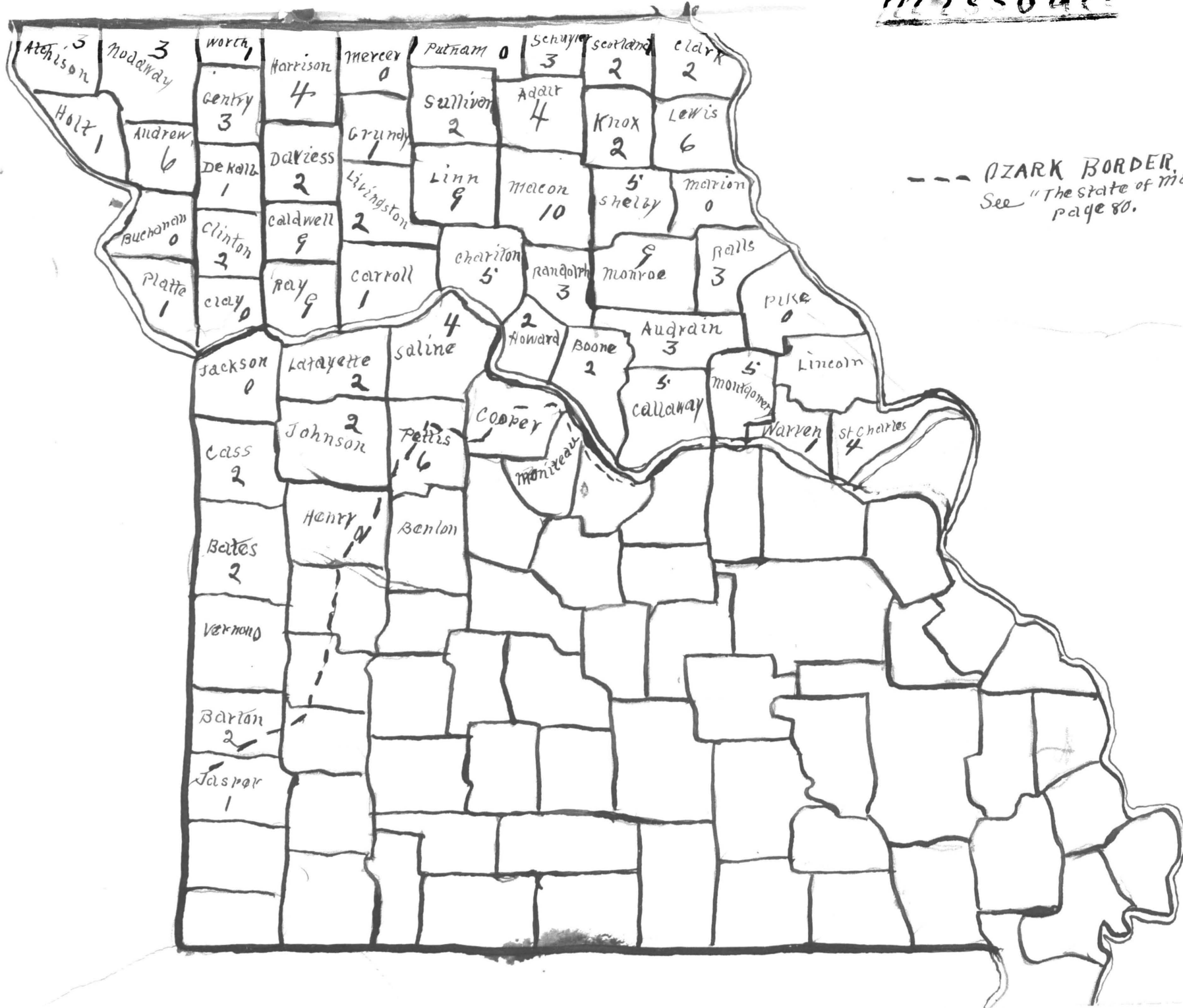
\* See accompanying map.

*From unpublished statistics in Dean  
Water's Office. Columbia, Mo.*





MISSOURI



--- OZARK BORDER.  
See "The State of Missouri,"  
page 80.





### The Questions the Producer was Asked.

In arriving at the cost of a steer it is necessary to consider the value of the land used ~~in producing him~~ and the number of acres necessary to support him since the interest on the money invested in land must be charged to him. The cost of keeping the cow producing the steer must be taken into consideration unless she is a dual purpose cow and produces milk enough to pay for her keep. It is not this class of cattle we propose to deal with here. The annual depreciation of the herd as well as the *loss* in young stock of various ages must be charged against the steer. Since about one half of the calves born are heifers, if the heifer is worth less than the steer one half of this difference must be subtracted from the value of the steer. Last, but not least, the labor necessary to take care of the cow and the steer must be charged against the steer. This last factor is very hard to determine since no Missouri farmer devotes all his time to cattle raising and there are no unions among farm hands.

The only thing to be credited to the growing steer is the fertility he adds to the farm in the course of his production.

By a perusal of the accompanying list of questions it will be seen that all of these points have been covered and an effort has been made to reduce everything to dollars and cents. While to do this with exactness <sup>is impossible</sup> it is the only way to get any idea of the subject. In making up the questions several checks were introduced such as asking the question in detail and then asking the farmer to express the same thing in his own way, *Also* by asking the question in two ways, i.e. the selling price of cattle per head and per





pound. The number of replies that exactly correspond on any given question is encouraging and shows that the farmers did not treat the question lightly but did some good thinking on the subject.

Let us now take up the questions in detail.





The questions submitted to the producers and the composite of the answers given by them.

CATTLE PRODUCTION.

1. What is the average value of your land per acre? - - - - - \$ 500
2. What is the cost of keeping a cow one year with calf at side for six months? Please express, if possible, in one of the following ways:
  - a. Number of acres required to produce the grass in summer 3 ac and other feed in winter - - - - - 3 acres
  - b. Value of grass and other feed required. - - - - - unanswered
  - c. In dollars and cents for the feed, not counting labor. --- 12
3. In one or more of the same ways, can you give me the cost of the feed and pasturage for a steer from 6 months to 12 months? --- \$ 5.00  
 From 12 to 24 months? - - - - - \$ 10.00  
 From 24 to 36 months? - - - - - \$ 13.00
4. What is the average value per head of your breeding cows? --- \$ 33 1/3
5. What per cent of your cows fail to produce a calf each year and rear it to the age of 6 months? - - - - - 5%
6. What percent of your cows fail to breed annually? --- 3%
7. What per cent of your cows do you lose annually? - - - - - 1%
8. How long is a cow serviceable? - - - - - 1 1/2 yrs
9. What is the difference in value of 3 year old steers and 3 year old heifers? - - - - - \$ 12.00
10. How many cows can one hand care for? - - - - - unanswered
11. What is the cost of one hand per year? - - - - - \$ 260.00
12. What per cent of calves over 6 months of age do you lose annually? - - - - - 2%  
 Over 12 months? - - - - - 1.5%  
 24 to 36 months? - - - - - 1%





13. Finally, kindly give in dollars and cents what you consider to be the cost of producing a steer to 6 months of age, including the keeping of the cow producing it. - - - - - \$12.00
- From 6 to 12 months? - - - - - \$6.00
- From 12 to 24 months - - - - - \$12.00
- From 24 to 36 months. everything considered? - - - - - \$15.00
14. What class of steers is produced in your community? - - unanswered
15. What would you consider to be the average selling price per head for native steer calves at weaning time for the past five years in your community? per head - - - - - \$13.00
- What for yearlings? per head - - - - - \$25.00
- What for two year olds? - - - per head - - - - - \$35.00
- What for three year olds? - - per head - - - - - \$45.00
16. What would you consider to be the average selling price per pound for native steer calves at weaning time for the past five years-in your-community? - - - - - 4 cents
- What for yearlings? - - - - - 3 3/4 - -
- What for two year olds? - - - - - 3 3/4 - -
- What for three year olds? - - - - - 4 - -

This refers to calves produced in the community rather than those shipped in from the stock yards.



The first one was "What is the average value of your land per acre"? To this one hundred and fifty-five replies were received ranging from \$25.00 to \$100.00. They were divided as follows:\*

28.3	per cent	replied	\$50.00
19.3	"	"	40.00
10.3	"	"	45.00
36.1	"	" below	50.00
35.4	"	" above	50.00

From this \$50.00 seems to be an average value.

For the data in detail see table of statistics.





The second question "What is the cost of keeping a cow one year with calf at side for six months?" was put in three ways so as to enable the farmer to answer in the way that suited him best. However the most of them treated it as three distinct questions and answered two or more of them.

2-A. was, "Number of acres required to produce the grass in summer and other feed in winter?" One hundred and twenty-six answers were received on this question. They ranged from one to eight acres, however there was only one answer to each of these extremes.

24.6	per cent	replied	3	acres
19.0	"	"	4	"
18.6	"	"	2	"
9.5	"	"	2½	"
9.5	"	"	1½	"

36.5	per cent	of the replies	were	below	3	acres
39.5	"	"	"	"	"	above 3 acres.

Since the majority answered 3 acres and those answering above and below practically off set each other it seems fair to consider the number of acres, according to these men, necessary to maintain a cow for twelve months with calf at side for six months as being 3.



2-b. "The value of grass and other feed required?" It was thought this question would separate the summer and winter cost but the majority considered it the same as 2 c and when they answered it at all gave the same answer as they did to the latter. A few understood the question but their answers were too badly scattered to get an average from them.



## 2-c. "Cost in dollars and cents not counting labor".

One hundred and thirty-three answered this question. The answers varied from \$5.00 to \$30.00 but as in the other case only one each gave those extreme answers. The bulk of the replies ran thus:

25.5	per cent	replied	\$12.00
16.5	"	"	15.00
12.7	"	"	10.00

Those answering above \$12.00 were 47.3%

Those answering below \$12.00 were 27.0 %

From the above it will be seen that the answers center around \$12.00. While more answered above than below \$12.00 those answering above are more scattered and I think \$12.00 should be considered the answer according to these figures.





The third question was divided into three distinct parts and the producer was asked to answer each of these as above, in one of three ways. Nearly every one chose to give the answer in dollars and cents.

The main part of the question was, "In one or more of the same ways (referring to the previous questions) can you give the cost of feed and pasturage for a steer?"

A. From 6 to 12 months.

To part of A one hundred and thirty-two answers were received ranging from \$2.00 to \$20.00. In this as in the other questions the extremes were favored by few and the majority of the answers were much closer together and ran thus:

25.1	per cent	replied	\$6.00
15.2	"	"	5.00
11.3	"	"	3.00
9.0	"	"	7.50
10.0	"	"	8.00

Those answering above \$5.00 were 47.7 per cent

Those answering below \$5.00 were 36.3 # " While those answering above \$5.00 were in majority the answers were scattered up to \$20.00 and those below were necessarily not much scattered, therefore \$5.00 I think should be the answer.



10.

B. Cost from 12 to 24 months.

One hundred and thirty-four answered this question giving answers from \$3.00 to \$30.00. Two answered \$30.00; one \$28.00; one \$23.00; one \$20.00 and four \$18.00.

29.1	per cent	of	these	replied	\$12.00	to	keep	a	steer	one	year
19.3	"	"	"	"	10.00	"	"	"	"	"	"
10.4	"	"	"	"	9.00	"	"	"	"	"	"
8.2	"	"	"	"	6.00	"	"	"	"	"	"

Moreover eight answered \$7.50 and four \$9.60. If we count these in with the \$8.00 and \$10.00 answers we have 13.4 per cent answering the former and 22.4 the latter. Then 39.5 per cent answered above \$10.00 and 38.1 percent below that number which indicates that \$10.00 is about the average.





## C. "Cost for 24-36 months?"

The same number (134) replied to this part of the question as did to 3b. These answers range from \$4.00 to \$40.00. I was unable to learn on what either the man who kept them at \$40.00 or \$4.00 fed them. Quite a number failed to read aright and gave figures for fattening a steer which of course have no bearing on this phase of the question.

Of those answering, 37.7 per cent replied \$12.00

17.2 per cent replied 15.00

10.5 per cent replied 9.00

65.4 per cent answered \$9.00 to \$15.00, 18 per cent answered above \$15.00. This seems to indicate that the average figure is somewhere between \$9.00 and \$15.00. Since the figure common to the greatest number is \$12.00 the answer should be somewhere near that amount. Of those answering \$9.00 and \$15.00 respectively the latter are in the majority and the answer should be nearer \$15.00 than \$9.00 hence it seems that \$13.00 would be a good compromise.



To question 4, "What is the average value per head of your breeding cows?", one hundred and forty-eight answers were given.

One man valued his cows as low as \$22.50 and another as high as \$125.00.

34.4	per	cent	of	the	men	have	cows	worth	\$30.00	a	piece.
26.3	"	"	"	"	"	"	"	"	"	"	35.00 a piece.
13.5	"	"	"	"	"	"	"	"	"	"	40.00 a piece.
10.8	"	"	"	"	"	"	"	"	"	"	25.00 a piece.

Five persons own \$27.00 cows and five own \$50.00 cows. Since so many answer \$30.00 the answer should be near that amount but the next largest number of answers being \$35.00 and the next \$40.00 it seems that the average value is above \$30.00. If we take \$33.33 as the average value we find that 73 persons answer below that price and 75 above.

Statistics\* based on the 1902 Census Report show that the average value of all cows in Missouri was at that time \$28.53. This is a very small difference, when we consider that the above report includes only those <sup>cows</sup> capable of producing beef cattle and <sub>are</sub> while not pure bred stock they generally high grades and good individuals.

.. .. .. .. ..

\* Report Nat. Stock Growers Association 1902 page 525.



The fifth question was "What per cent of your cows fail to produce a calf each year and rear it to the age of six months?". One hundred and forty-five answered this question. These answers vary from 0 to 33 1/3 per cent.

44	persons	have	answered	10.00	per	cent	of	them	fail	to	pro-
											duce
											a
21	"	"	"	5.0	"	"	"	"	"	"	annually.
11	"	"	"	1.0	"	"	"	"	"	"	"
10	"	"	"	2.0	"	"	"	"	"	"	"

This shows that the loss in this way is pretty high. Since so many answered 10 per cent it seems that the average per cent is somewhere in that neighborhood. However a greater number answered below ten than did ten and above and those answering above were badly scattered. Taking 9 per cent as the average answer we find that 71 persons answered below and 73 answered above therefore I consider 9 per cent as the average loss in this way.





6. "What per cent of your cows fail to breed annually?" This question may seem to overlap the former one and was treated in that way by the farmer. Nevertheless it shows how much loss there is in this way and is interesting, ~~and~~ I shall give the data on it although in the summing up I shall consider that the 9 per cent above covers this loss. One hundred and thirty-eight replies were received on this question ranging from 0 to 20 per cent. The answers run thus:

23	persons	replied	2	per	cent
22	"	"	5	"	"
21	"	"	0	"	"
17	"	"	10	"	"
11	"	"	1	"	"

Those answering the same were about equally divided above and below 3 per cent hence it seems that 3 per cent ~~should~~ be the answer.



The seventh question was "What per cent of your cows do you lose annually?". One hundred and thirty-five replied to this. I find that

30 of these lose 2 per cent annually.

29 of these lose 1 per cent annually

26 of these lose 0 per cent annually.

the remainder lose all the way from 0 to 14 per cent.

However as the above answers were favored by so many and are so close together I think 1 per cent is about the right average.



There were two kinds of answers received to the eighth question, "How long is a cow serviceable?" Some would say a definite number of years while other said "up to" a certain time. When the latter answer was given I always deducted two years supposing that the cow usually calves first at that age. A total of 141 answers were given to this question. They ranged from seven to eighteen years.

20.5 per cent of these replying found them serviceable for 10 years.

19.8	"	"	"	"	"	"	"	"	"	12	"
14.8	"	"	"	"	"	"	"	"	"	8	"
9.9	"	"	"	"	"	"	"	"	"	11	"
8.4	"	"	"	"	"	"	"	"	"	15	"

Exactly 45.3 per cent answered on either side of 11 years. Considering the large per cent who answered 10 and 12 years 11 years seems to be the average length of time.



While question 8 was answered in two ways question 9, "What is the difference in value of 3 year old steers and 3 year old heifers?" was answered in several ways and was the most difficult one to handle. It is pretty hard to compare "\$10.00" with "\$1.00 per cent", <sup>[100<sup>lb</sup> wt]</sup> "33 1/3 per cent more" and "twice as much". Throwing out the percentage answers and considering a three year old steer as weighing 1200 pounds (these statistics show 1125) I have arrived at the following answers.

24 per cent answered \$10.00 in favor of the steer.

20.4 per cent answered \$12.00 in favor of the steer

14.7 per cent answered \$15.00 in favor of the steer.

The remainder were badly scattered varying from 0 to \$20.00. Those answering the former and nine answering the latter out of 142 answers. All the answers were in favor of the steer. 54.9 per cent answered between \$10.00 and \$15.00 which leads me to believe \$12.00 is the average difference.

Statistics \* based on this last census show there is a difference of \$12.07 in steers three and over and heifers over 2 years not used for milking purposes.





Question ten, "How many cows can one man care for?", cannot be satisfactorily answered for Missouri conditions. This list of questions was made to apply also to another state where rough *range* conditions prevail and it is for this reason that <sup>this</sup> question was asked.

In Missouri no cattle raisers hire hands to look after cattle exclusively and the amount of time given to the cattle varies so much from month to month on the same farm that no definite amount could be stated. The question was answered but the great variation in the answers show them to be mostly guesses.



Question 11 was well answered but without ten it has no application here.

I think it will be safe to consider the manure from the cattle as balancing the cost of attendance. I know that many do not utilize the manure in such a way as to make it pay for the labor but it could be done.



Question 12 was "What per cent of your calves do you lose annually?". It was divided into three parts to suit the ages of the cattle under consideration. The first part includes cattle from 6 to 12 months of age. To this part one hundred and thirty-five answers were received, ranging from 0 to 20 per cent. Of those replying

21	lose 5 per cent of their calves between the ages of 6-12 mo.				
20	do not lose any	"	"	"	"
18	lose 30 per cent	"	"	"	"
17	lose 1 per cent	"	"	"	"
10	lost 10 per cent	"	"	"	"

Although the highest number of answers was for 5 percent so many answered 0, 1 and 2 per cent that I think 2 per cent should be considered the average loss.



The second part included cattle from 12 to 24 months of age. To this part one hundred and twenty-six replied.

Here we notice a narrower range in the replies, namely from 0 to 10 per cent. They run thus.

33 persons replied 1 per cent loss from 12-24 months.

29 " " 2 " " " " " "

22 " " 0 " " " " " "

16 " " 3 " " " " " "

Those answering between 0 and 3 per cent were 104 in number, 38 answered above 2 per cent and 59 below 2 per cent. Thus according to these answers the average per cent of loss is below 2 per cent and above one per cent and it seems fair to put it at 1.5 per cent.





C. The third part of the question deals with the loss from 24 to 36 months of age. One hundred and nineteen answered this part of the question. Here again the answers were narrow in range. Only one man loses 10 per cent of his three year old cattle and the next highest loss is 5 per cent while 30 persons do not have any loss whatever.

45 persons lose 1 per cent

25 " " 2 per cent

and the remainder from 3 to 5 per cent. This loss is about equally divided on either side of 1 percent and I shall consider 1 per cent as the average loss at that age.



The answers to question thirteen ~~xxx~~ are a summing up by the farmer of all the other questions. It serves as a check on the other questions. The question was divided into four parts so as to obtain data on the different ages.

The general question is "Finally, kindly give in dollars and cents everything considered what you think is the cost of producing a steer".

13.A. "To six months of age including keep of cow producing it". To this part one hundred and thirty eight answers were received. The lowest was \$3.60, the highest \$25.00. Three each of these kind were received and,

15.2 per cent favored	\$15.00
12.0 per cent favored	6.00
10.8 per cent favored	10.00
9.3 per cent favored	12.00
7.9 per cent favored	8.00
7.2 per cent favored	20.00

Since the answers above and below \$12.00 about offset each other I shall consider \$12.00 as the average of these replies.



B. Cost from "6 to 12 months of age". One hundred and twenty-eight replies were received to this part of the question. They ranged from \$3.00 to \$30.00. Nine persons answered \$3.00, six \$3.60. However the majority of the answers ran higher as will be seen from the following;

21.8	per cent	answered	\$6.00
10.9	"	"	8.00
8.5	"	"	4.00
7.7	"	"	12.50.

Those answering below \$6.00 were 27.3 per cent. The unscattered answers above \$6.00 were 30.5 per cent. From this I think that \$6.00 is the average cost according to these answers.



C. Cost of keep from "12 to 24 months". On this part of the question a total of one hundred and twenty-four replies were received. They were from \$6.00 to \$42.00.

The total cost to 21. per cent was \$12.00 for from 12 to 24 months.

"	"	"	"	"	14.6	"	"	"	10.00	"	"	"	"	"
"	"	"	"	"	10.5	"	"	"	8.00	"	"	"	"	"
"	"	"	"	"	8.9	"	"	"	15.00	"	"	"	"	"
"	"	"	"	"	8.1	"	"	"	9.00	"	"	"	"	"
"	"	"	"	"	5.6	"	"	"	6.00	"	"	"	"	"
"	"	"	"	"	5.6	"	"	"	30.00	"	"	"	"	"
"	"	"	"	"	4.0	"	"	"	25.00	"	"	"	"	"

From the above we see that the largest per cent favoring one answer was for \$12.00. 37 per cent gave answers below that amount. While those answering above \$12.00 were in majority they were badly scattered and I shall consider \$12.00 as the answer.





D. Cost of keep from "24 to 36 months". One hundred and seventeen answered this question. Of these

20.5 per cent answered \$12.00

15.3 per cent answered 15.00

8.5 per cent answered 14.00

7.6 per cent answered 25.00

6.89 per cent answered 30.00

6.8 per cent answered 10.00

41.8 per cent answered below \$15.00 and 42.7 per cent answered above that amount. Since so many answered \$12.00 I think the average is near that amount. However much a large per cent answered above that amount and the answers ran so well together I think the average is above \$12.00 and is at least \$15.00.

It will be observed that the answer to 2 c and 13 a are just the same and there is only a slight difference between 3a and 13 b, 3 c and 3 d. The first questions refer to feed only, the last include everything. This is characteristic of the farmer's way of figuring and shows a failure to consider the cost of labor, the loss in calves and the depreciation of his herd. I know it to be the fact that the farmer seldom counts his labor in figuring on anything.



Question 14 was "What Class of steer is produced in your community?". This question was asked with the idea of classifying the answers to the next two questions. However out of 146 replies given only four were correct. The classes of cattle are stockers, feeders, beef, butcher stock, and canners.

The answers received ran thus, "Herefords", "Shorthorns", "Angus", "grades", "purebreds", "good", etc., showing a complete misunderstanding of the term.



Number 15 was ~~sent~~<sup>put</sup> in to serve as a check to the others and to show the farmers' idea of the profits in the business.

The question reads, "What would you consider the average selling price per head for native steer calves for the last five years in your community", and the question is divided into four parts.

A. "price at weaning time"; B. "yearlings", C. "two year olds" and D. "Three year olds".

To part A, 152 answers were received ranging from \$5.00 to \$40.00

20.6 per cent answered \$15.00

17.1 " " " 17.00

14.4 " " " 16.00

11.1 " " " 14.00

10.6 " " " 12.00

10.6 " " " 18.00

5.2 " " " 10.00

3.2 " " " 13.00

Since so large a per cent answered \$15.00 and the remainder of the answers are close and about equally divided on either side I think \$15.00 should be considered the average answer.



To part B one hundred and fifty-one answers were received ranging from \$15.00 to \$47.50. The unscattered answers were divided as follows,

30.4	per cent	answered	\$25.00
10.6	"	"	24.00
7.8	"	"	26.00
10.2	"	"	23.00
9.2	"	"	20.00
6.6	"	"	27.50

The largest per cent answering one question answered \$25.00 and the remainder of the unscattered answers <sup>are</sup> being so close on either side of \$25.00 that I believe they would have no trouble compromising on \$25.00





C. To this part of the question 150 answers were received. The lowest was \$15.00 the highest \$70.00 Those giving the same answers ran as follows.

22	per cent	answered	\$35.00
12	"	"	30.00
10.7	"	"	40.00
10	"	"	32.00
10	"	"	33.00
8	"	"	38.00

Remainder scattered.

From the above I think it is evident that \$35.00 is the average for these statistics.



D. To this part of the question 136 answers were received the lowest of which was \$22.00 the highest \$55.00 or \$5.00 less than the highest answer received on the 2 year olds.

The replies ran thus:-

20.7 per cent replied \$45.00  
 18.8 per cent replied \$48.00  
 13.3 per cent replied \$42.00  
 13.3 per cent replied \$40.00  
 12.6 per cent replied \$50.00  
 7.2 per cent replied \$37.50  
 2.9 per cent replied \$55.00

From the way the answers are divided on each side of \$45.00 and that reply being the most favored it seems fair to call it the average. Statistics\* based on the 1900 census report give the selling value in Missouri for steers of these ages as follows.

	Census report	my investigation.
Calves of weaning time	10.96	\$15.00
yearlings	22.50	25.00
two	34.23	35.00
three	35.51	45.00

Up to the three year olds there is no difference that cannot be explained on the ground that the census report included ~~terms~~ Holstern and other dairy steers while my investigation included only the beef breeds. However the difference which seems very small, Perhaps my figures are too high but surely they are not that much too high.

\*Annual report of Nat. Live Stock Growers Association 1902 p. 525.



Question 16\* serves the double purpose of a check on 15 and of showing the average weight of the cattle at the various ages.

It reads, "What would you consider to be the average selling price per pound for native steers for the past five years in your community?". It is also subdivided into four parts to suit the various ages.

A. "At weaning time".

One hundred and thirty-nine answers were received to this part of the question. They ranged from  $3\frac{1}{2}$  to 6 cents.

46.9 replied 4 cents per pound.

19.2 "  $4\frac{1}{2}$  " " "

18.4 "  $3\frac{1}{2}$  " " "

The ten remaining replies were divided among 3,  $4\frac{1}{4}$ , 5 and 6 ¢

I think from the above no one would hesitate to call 4 cents the average answer.

.....

\* For complete statistics on these questions see the accompanying table.



B. \*Selling price of yearlings.

One hundred and forty-two replies were received ranging from 3 to 5 cents.

29.6 replied  $3\frac{1}{2}$  cents per pound

28.1 replied 4 cents per pound

11.9 replied 3 cents per pound

7.1 replied  $3\frac{3}{4}$  cents per pound.

From the above we see that practically the same number replied  $3\frac{1}{2}$  cents as did 4 cents and 3 as  $3\frac{3}{4}$  cents therefore I think the average would be  $3\frac{3}{4}$  cents per pound.





**D. "Selling price of two year olds".** One hundred and forty replies were received to this part of the question~~s~~. They ranged, as in 16 B, from 3 to 5 cents

31.6 per cent replied 4 cents per pound

25.1 per cent replied  $3\frac{1}{2}$  " per pound

23.1 per cent replied  $3\frac{3}{4}$  " per pound

9.2 per cent replied  $4\frac{1}{2}$  " per pound

7.2 per cent replied  $3\frac{1}{4}$  " per pound.

This shows I think even a stronger preference for  $3\frac{3}{4}$  cents than did 16 B, although the answers run about the same.



D. "Selling price of three year olds."

One hundred and thirty-three answered this part of the question. The highest answer was  $5\frac{1}{2}$  cents, the lowest 3 cents. However these answers were very few in number. 47.8 per cent replied 4 cents the remainder of the replies were about equally divided between  $3\frac{1}{2}$ ,  $3\frac{3}{4}$  and  $4\frac{1}{2}$  cents the highest one receiving about 12 per cent of the replies. Therefore I think there is no question about 4 cents being the average of these replies.

In considering these answers we must remember that they represent average conditions and must be modified for application to any particular case. For instance; the man on twenty-five dollar land will find them too high, while the man on one hundred and twenty-five dollar land will think them entirely too low.



## REMARKS

A blank space was left at the close of the list in which the producer was asked to make <sup>n</sup> remarks he might wish to. Forty-four took advantage of this and 40.9 per cent of these, from ~~the~~ <sup>forty</sup> out of the forty-four countis<sup>s</sup> heard from, made statements to the effect that cattle growing is unprofitable. No one stated that it was profitable. The remainder of the replies refered<sup>to</sup> some detail in the list of questions.\*

.. .. .. .. ..

\* A tabulated list of these replies will be found in the table of statistics.



List of Remarks Tabulated,  
According to Counties.

Andrew. "Little under ordinary conditions to ~~purify~~ keeping  
a cow for the calf only".

Caldwell "Cheaper to buy than to raise, cannot keep cow for calf  
only".

" "Dairy cows are a great deal more profitable"

Calloway "After several years of experience, I conclude there is no  
money in feeding cattle ."

" "No money in keeping cows for calves only."

Chariton "It costs more to raise them than they are worth."

Gentry "Nothing made on cattle for last several years".

Lewis "No money except fertility gained".

Linn "Cattle business a failure."

Livingston "Not much in cattle as a rule".

Macon "This seems to indicate that raising cattle is a losing  
~~ba~~ business".

Montgomery "Not much in raising cattle on extensive plan."

Pettis "People cannot afford to keep cow for calf only."

Ray "A losing game to keep cows for calves only".

Ray "Business unprofitable".

Ray "Very little made in handling cows would quit were it  
not for milk for family."

St. Charles "Cattle business dull for several years".





Based on answers given in the foregoing questions let us see if we can arrive at the cost of producing a steer as well as the profits or loss to the farmer.

First let us take the figures the farmer gave as the total cost of producing a steer;

A.	To weaning time	\$12.00	value at weaning time	\$12.00
	Profit at weaning	\$ 3.00		
B.	To one year of age	\$18.00	" " 1 year of age	\$25.00
	Profit at 1 year of age	\$7.00		
C.	To 24 months of age	\$30.00	" " 24 months	\$35.00
	Profit at 24 months	\$ 5.00		
D.	To 36 months of age	\$45.00	" " 36 months	\$45.00
	Profit at 36 months	\$0.00		

Taking these figures as correct nothing very profitable can be shown in the cattle business. But as has been pointed out heretofore\* these figures cannot be accepted as correct. They are far too low. Nothing has been counted for interest, loss in young stock or depreciation of the herd.

When we consider these things, according to the figures~~x~~ for such, given by the farmers themselves, the account with Mr. Farmer and Mr. Steer runs something like this.-----

.....

.....

.....



Mr. A. in account with one steer calf.	Dr.	Cr.
To feed and pasturage of dam for one year & One calf for six months <sup>a</sup> . . . . .	\$12.00	
To cow failing to breed <sup>b</sup> . . . . .	1.26	
To interest at 6% on money invested in dam <sup>c</sup> . . . . .	2.00	
To depreciation of dam <sup>c</sup> . . . . .	2.38	
To loss of cows by death <sup>d</sup> . . . . .	.33	
To care of calf and dam <sup>e</sup> . . . . .	X	
To fertility added to soil by calf & dam . . .		X
To interest at 5% on money invested in feed for calf and dam <sup>f</sup> . . . . .	.72	
<u>To one steer calf at weaning time . . . . .</u>		<u>\$15.00</u>
Total cost of calf at weaning time	\$18.69	
Value of calf at weaning time		\$15.00
Balance (or loss on enterprise)		3.69

a. The average of those giving the number of acres necessary to keep a cow one year with calf for six months, (see answer to 3A), was 3 acres. The average value of the land was \$50.00 per acre. Interest at 5% on \$150.00 worth of land would be \$7.50, for use of land. This leaves \$4.50 to pay for the cultivation and harvesting of the crops, for maintenance of repairs on the land and to pay taxes which seems very reasonable. The Kansas <sup>Experiment Station</sup> estimates this cost at \$14.50 (Bul, No. 125, Kas. Agr. Col. page 83).

b. Since, according to the answer to question 6, 9% of the cows fail to raise a calf to weaning time the expense of keeping these cows must be charged to the steer or the cost of keeping the dam must be increased by that much. To this must be added the interest on the money invested in cows which produce nothing. The figures should run thus:



9 per cent of \$12.00 the cost of keeping a cow a year =	\$1.08
9 per cent of 5% of \$33 1/3 =	<u>.18</u>
Total loss due to cows failing to breed =	\$1.26

The reference given in "a" puts this loss at \$2.75 per head per annum.

c. The replies (see answer to question 8) show that a cow is serviceable eleven years. This is on the supposition that the cow is kept until ~~he~~ she dies. The practice is to sell before that time. Supposing the cow is sold at 10 years she ought to bring at least half of her original value or \$16.66. During the 10 years she ought to produce seven calves. Then the \$16.66 loss must be charged to those calves or \$2.38 to each half.

d. The loss in cows might seem to be covered by "c" but I take it by loss in cows is meant the accidental loss from year to year or insurance. This was placed at 1% which would be 33 1/3 cents per cow.

e. Since no figures on the amount of labor necessary in caring for cattle are obtainable we shall have to consider the labor offset by the fertility added to the soil by the cattle.

f. It ~~xxx~~ seems only fair to charge interest on the money tied up in feed. If the feed were sold the money could begin to bear interest immediately.



Mr. A. in account with one yearling Steer.

	Cr.	Dr.
To cost of steer at weaning time	\$18.69	
To value of steer at weaning time		\$15.00
To feed and pasturage of steer from 6-12 mo 6-12 months*	5.00	
To interest at 6% on money invested in feed for steer 6-12 months	\$ .45	
To loss in calves 6-12 months**	.30	
To care of calf 6-12 months	X	
To fertility added to soil 6-12 mo.		X
<u>To increase in value of calf 6-12 mo.***</u>		<u>10.00</u>
Total cost of calf at 12 months of age	\$24.44	
Value of calf at 12 months of age		\$25.00
Profit in enterprise	.56	
.. .. .		

\* See ~~question~~ answer to question 3A.

\*\* The average loss in calves at this age was found in reply to question 12A to be 2%. 2% of \$15.00 = \$ .30

\*\*\* See value of yearling steer, answer to question 15B.





Mr. A. in account with one two year old steer.

	Cr.	Dr.
To cost of steer at 12 months	\$24.44	
To value of steer 12 months		\$25.00
To keep feed & pasturage of steer 12- 22 months*	10.00	
To loss in steers 12-24 months **	.38	
To interest on money invested in steer 12-24 months at 6%	1.48	
To interest at 6% on money invested in feed for steer 12-24 mo.	.60	
To care of steer 12-24 months	X	
To fertility added to soil by steer 12-24 months		X
To increase in value of steers		10.00
<hr/>		
Total cost of steer at 24 months	\$36.90	
Value of steer at 24 months		\$35.00
Balance (or loss on enterprise)		\$ 1.90

See answer to question 3 B.

\* See " " " 12 B.



Mr. A. in account with one 3 year old steer.

	Cr.	Dr.
To cost of steer at 24 months	\$36.90	\$
To value of steer at 24 months		35.00
To keep of steer-feed and pasturage*		
24-36 months	13.00	
To loss on steer 24-36 months	.45	
To interest at 6% on money invested in steer	2.70	
To interest at 6% on money invested in . feed for steer 24-36 months	.78	
To loss on heifer calves**	6.00	
To care of steer 24-36 months	X	
To fertility added to soil by steer 24-36 months		X
To increase in value of steer 24-36 months.		10.00
<hr/>		
Total cost of steer at 36 months	\$58.23	
Value of steer at 36 months		\$45.00
Balance (or loss in enterprise)		13.23
.....	.....	.....

\* See answer to 3C.

\*\* See page 3 and answer to question 9.



We notice from this data that the older the steer the greater the loss with the exception of the two year old steer, The farmer a few years back began <sup>a</sup> to recognize this and is maturing his animals <sup>earlier</sup> sooner. This fact is shown by the scarcity of three year old steers <sup>as shown by</sup> and the fewer number of answers to the questions concerning them. We note a falling off even in the information concerning the two year old steer. And many were the remarks to the effect that "we produce baby beef" showing that the two year old feeder is losing in favor.

From the above figures it seems also that the farmers who said beef production was a losing business ~~were~~ about right. I doubt however if these men or any of the others would admit it is a losing business to the extent these figures indicate. Then we may ask how comes this apparent contradiction? In the first place as was pointed out in the beginning it is impossible to exactly represent the cost of producing a steer in dollars and cents. And <sup>secondly</sup> ~~usually~~, as has been shown, few farmers keep steers until they are three years old. Then it is generally not the value of the steer, ready for the feed lot at two or three years of age, that the farmer considers when he is producing these animals, Unless he sell stockers, in which case he is always the loser, he looks upon these animals as a vehicle to ~~carry~~ convey his feed to market and the fertility, which has been withdrawn, back to the soil. Viewed in this way the industry assumes an entirely different light. In ~~fig~~ figuring the cost of these animals the farmer has had to put a valuation on some rough feeds which, under present conditions is



entirely correct, would be almost worthless were it not for these or some other animals. (And for this present we have to assume that these animals are the best for the purpose for we have to deal with the situation as it is not as it might or should be). In giving these figures the farmer has had to figure his grain at average market prices ~~whereas~~ as if he should attempt to realize the same money from his farm by putting his feed directly on the market what would it mean to him? It would mean that he must have extra men, teams and implements to cultivate his land now in grass~~es~~ and to haul his crops to market. It would mean, if he gets the average market prices for his hay and corn, that he must often take it to market over roads thirty inches deep in mud and ten miles in length, a practical impossibility. It would mean, when he had done all this, unless he is better skilled in crop rotation than the most of us, that he must haul back to his farm high priced commercial fertilizers, whose use he does not understand, to replace the fertility these crops have taken away. He must do still more, when he has bought his fertilizers he must buy extra attachments for his planters and seeders to get these fertilizers in the soil ~~proper-~~<sup>properly</sup> ly.

On the other hand by the use of the steer he can turn his grass, grain, hay and otherwise worthless stalkfield and many other cheap feeds into beef, regardless of the roads and weather, and, when these are favorable, make the steer carry it to market. By means of the steer he can get back his fertility in the right proportions and, by proper management, have it scattered over the fields he wishes ~~to~~ it on. Although men of other professions are wont to laugh at him, although he does not figure as closely and accur-





ately as does the banker, the farmer is no fool. He knows he can well afford to produce the steer ready for the feed lot without profit or even at a small loss up to that time if thereafter he can make him a profitable vehicle of transportation to market for his farm products.

It may be claimed that some other animal, such as the sheep, the dairy cow, the horse, etc., would serve the purpose and produce greater returns. Probably this is true but it must be remembered that the Missouri beef producer has always been a beef producer, that his father and his grandfather before him dealt in beef animals, and he knows more about this kind of farming than any other. To take up another kind of farming means mistakes and consequently losses. For these reasons he is slow, and rightly so, in changing his mode of farming.























4 Continued

5 Continued

6 Continued

County	4 Continued												5 Continued												6 Continued																							
	25	27	30	35	40	45	50	60	70	75	80	85	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25											
Lewis			3	2	1								1	1		1						3								2	1				1	2												
Lincoln	9	2	1	1	2	1	1			1			1	1	3	1						2							1	2	2	1	1		1		1											
Layette	2			1		1															2										2																	
Lynch	2				1	1								1									1	1					1							1												
Madison	9			5	3					1			1	1		1						3	1	1			1	1	1	1	1		1	2			1											
Madison	10			2	3	2	2			1					1	2						4	1		1			1	2	1	1	1	3				1											
Montgomery	5			2	2			1					1		1		1					2							1	1					2													
Newton	3				1	1															1	1								2		1	1															
North	6		1	1	3	1												2				2						2	1	1	1	2					1											
Orange	1									125												1																										
Orange	9	1		2	2	2	1			1			2		1	2						2		1	1			2	2	1	1	1		1	1		1											
Orange	3			2		1											1					1														1												
Orange	7			2		1												1				1													1		10		1									
Orange	4	2		1	1								2	1								1	1	1				2				1			1													
Orange	4	1	1	1																	1	1					1						2		1													
Orange	2			1	1										2													1	1																			
Orange	2			1	1												2											1																				
Orange	3			1	1																	2						1							1	1			1									
Orange	5		1	1	3										1							3	1					1	1						1			1										
Orange	1					1																						1																				
Orange	1				1																																											
	9	16	5	51	39	20	2	5	0	5	1	1	2	1	12	10	10	11	7	1	2	3	2	6	1	4	1	6	2	2	8	7	1	1	18	20	11	20	7	7	22	5	1	8	17	4	3	4















Missouri

11 cont.

No. of Reps. 165 180 200 216 220 240 250 260 275 300 330 350 365 400 450 480  
 165 180 200 216 220 240 250 260 275 300 330 350 365 400 450 480

	165	180	200	216	220	240	250	260	275	300	330	350	365	400	450	480
Lewis	6	1		1	1		1		1	1						
Lin	9				1	2	1		1	3					1	
Fayette	2						1		1							
Wright	2	1					1									
Harrel	9					2	2		3				3			
Macou	10		1			2	1	1	3	1			1			
Outgouery	5		1	1	1	2										
Laway	3	1					1									1
Stiles	4						2		4							
Stitt	1								1							
My	9	2				1	1		2	1			1	1		
Wells	3	1	1				1									
Randolph	3			1		1			1							
Lin	4	1				2			1							
Charles	4		1		1	1	1									
Staud	2					1							1			
Lullivan	2					1	1									
Hughes	0					2			1							
Billy	5					2			1	1	1					
Carren	1					1										
Stitt	1															
el	13	2	5	5	4	6	35	17	4	3	37	5	1	4	1	1







12 cont.

Missouri

City	Total No. Replies															No. per																						
	0	1	2	3	4	5	6	7	10	12	15	20	0	1	2	3	4	5	8	10	10	20	3	4	5	10												
Wis	6	1	2	1		1						1	1	2	2	1										4	1	3	1									
ma	9	1	1	2	1	2	1	1					2	1	1	3		1							4	1	1	3										
Layette	2	1			1								1	1											1	1												
ington	2	1	1										1							1					1	1												
lourde	9	1	1		1	2	1		1		2		2	3	1	1		1		1		1			2	1	3	1							2			
acon	10		2	1	1	2	2		2				1	1	2	5		1							1	4	4		1									
outgomery	5	1	1	1		2							3		1	1									3	1	2											
daway	3		2	1											1	2									1	2												
ttis	6	1	1	3	1								1	1	2	1		1							1	3	2	1										
tt	1					1										1																						
lls	9	2		4	1	1	1						2	0	2	1									2	1	2	1										
	3	1		1		1							1	1	1										1	1	1											
ndolph	3	1				2									1	1		1								1	1											
line	4	3			1								3	1											3	1												
Charles	4	1	1	1					1				1	1	1					1						3			1									
lland	2	1				1							2												1	1												
llivan	2				1	1										1	1									1			1									
huyler	3			1					1							1	1		1							1	2											
lly	3	2		1		2							1	2						1		1			1	3												
arren	1	1													1											1												
rtly	1			1											1											1												
	2	1	2	1	2	1	3	1	4	0	1	1	2	30	22	4	33	39	16	7	12	1	2	36	4	15	30	26	7	2	5	1						







Missouri

City	Total Replies	No. of replies					No. of replies					No. of replies					No. of replies																		
		1-5	6-10	11-15	16-20	21-25	1-5	6-10	11-15	16-20	21-25	1-5	6-10	11-15	16-20	21-25	1-5	6-10	11-15	16-20	21-25														
Paris	4	2	1	1	1	1	1	1	2							4	1	1	1	1	4	12													
St. Louis	9	2	1	2	1	2	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	1	1												
Layette	2																					1	1												
Wagston	2		1			1			1	1							1	1				1	1												
Wool	5	1	1		1	4	2		1	1	1	1	1	1	1	1	1	3	2	1	1	1	1												
Wesson	10	1	1	1	1	2	3		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1												
Wintgomery	5	1	1	1	1	1			2	1	1	1				2	1	1	1		1	1													
Waway	3	1		1		1			1	1	1	1				1	1				1	1													
Wthis	6		1	1		1	2			3	1	1				1	1	3	1	1	1	1													
Walt	1						1			1											1	1													
W	9	1	1	1	2	1	1	1	2	2	1	1	1	1	1	1	1	2	1	1	1	1													
Wlls	3			1	1		1			1	1	1					1	1			1	1													
Wndolph	3		1		1		1			1	1	1					1	1	1		1	1													
Wline	4	1		1					3		1					3						1													
WCharles	4		1	2		1				1	2	1					1	2	1		1	2													
Wlland	2				1	1			1		8					1		1			1	1													
Wllwan	2			1	1				2									1	1		1	1													
Wchuyler	3			1	1	1			2			1				1		1			1	1													
Wlby	5	1			1	1	1		1	1	1	1				2	1	1	1		1	1													
Warren	1						1			1								1				1													
Writth	1	1							1							1					1	1													
	18	345	184	1615	236	521	416	210	3	21	96	11	928	9154	326	12	22	174	121	332	730	1829	11	853	35	731	34	111	482	168	216	791	825	43	2











16 What would you consider to be the average selling price per pound for native steer calves for the past five years in your community?

at weaning time What for yearlings? What for two year olds? . What for three year olds?

Missouri

Name	Total no. of Replies	at weaning time					What for yearlings?					What for two year olds?					What for three year olds?				
		no. 3	3 1/2	4	4 1/4	4 1/2	no. 3	3 1/2	4	4 1/4	4 1/2	no. 3	3 1/2	4	4 1/4	4 1/2	no. 3	3 1/2	4	4 1/4	4 1/2
lain	4		2	1	1	1	1	1	1	1	1	2				1	3				
drew	6		3	1	1	1	2	2	1	1		4	2	1		1	1	2	1		
herson	3	1	2			1	1	1			1	1	1			1	1	1			
adrain	3		1	1	1		2	1			1	2						2	1		
ates	2	1	1				2					2						2			
erton	2		1	1			2	1			1	1				1					
ow	2		1	1			1	1			1	1					1	1			
roll	1		1					1				1								1	
duell	9	1	2	3	2	1	2	5	1	1	3	1	3	1	2	1	1	3	1	1	
laway	5	2	2			1	2	5	2	1		1	3	2				1	2		
rt	2		2			1	1			1	1			1		1					
riton	5		4			1					1	4		1				2	2		
ton	2		1	1			1	1			1	1		1	1	1	1	4			
K	2	1	1				1	1			1	1					1		1		
ies	2		1		1			1	1			2						1	1		
alle	1				1			1			1							1			
ady	1		1				1				1							1			
ry	3	1	1			1	1	1	1	1	1	1	1	1				2			
ison	4	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1		
ard	2		1		1			1	1			1	1						1	5	
t	1		1					1				1						1			
on	2		2				2				1	1				2					
er	1				1			1				1				1					
H	2		2					1	1			1	1					1	1		

















DUE	RETURNED
JAN 21 1970	JAN 21 1970
MU JAN 27 2012	
Form 104	





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