THE DISTRIBUTION OF LABOR
AND ITS RELATION TO
FARM MANAGEMENT.

by

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INTRODUCTION.

The following pages are devoted to a study of labor conditions on four Missouri farms, in an effort to determine if possible, just what those conditions are. The work was started in the spring of 1910, under the direction of the United States Department of Agriculture, and has been carried on since, through cooperation with them. The original purpose was to obtain data on the cost of production, but the new, and more productive field for studying the labor problem of the farmer, was broken into, and offered such possibilities, that the major part of the investigation has now this object in view. In order that the work would not be all giving, and no receiving, on the part of the farmer, the cost factor is given quite accurate attention, so that the farmer can be supplied at the end of the year's operations with a summary of the costs on his farm for that year.

In the following treatment of the subject of Distribution of Labor, it is recognized that the figures are not extensive enough to draw general conclusions from; so nothing that may be said later, is intended to apply to any conditions save those under which the figures and results were obtained.

The labor cost of production given in connection with the labor study, represents what actually took place on these farms, and may or may not be representative of other conditions. In all the work, the cost referred to, is the labor cost based on the time actually consumed in performing the operation. The figures are often reduced to a dollar basis, for purposes of comparison, but it is hoped that this will not be misleading. The rate per hour of ten and fifteen cents, has proved in our past work, to be very nearly an average cost of horse and man labor, respectively. But it should be remembered that this is only a comparative basis. And, believing that successful Farm Management is dependent as much on this, as any other factor, we have made this study of that labor Factor.

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METHOD OF GATHERING DATA

The method used in collecting data for this study is a very long and detailed one. The problem that confronted those beginning the work was to get from the farmer a record of just what he did every hour in the day and every day in the year. At first a method was used by which the farmer reported only the irregular daily work. All regular daily work or "chores" was reported at the end of the month in a chore statement; which gave the average daily time spent in feeding and care of horses, cows, hogs, etc. It was soon decided that such a method was open to too much error, so after the farmers became used to reporting, they were required to report each day the time spent in doing regular work as well as all other work reported. A map of each farm cooperating, showing area of fields; crops on these fields the past year, crops to be grown on each field for the present year; and giving each field a letter as "A", "B", "C", etc., by which it would be designated when referring to it in the labor report is required. Any labor previously done on the field, or expenses incurred, for crops of the present year is accounted for in the "Annual Inventory" taken on each farm at the beginning of the year. The following are some points on which emphasis is placed in giving the cooperator directions for making out the daily labor report.

1. Tell exactly what is done.
2. Give all such information as will aid in keeping a complete record: viz. field letter; amounts and cost of any seed used; operation being performed - whether first, second, or third

cultivation, double discing etc.; designate completion of an operation by an X; give kind, number, and size of load and value in your community, of manure used; amounts and value of crop harvested; etc., etc.

3. Always be explicit. Do not report an item such as "chores" or "odd jobs" or caring for cows and horses. Make definite statements, giving work put in on separate enterprises separate reports as for example: feeding and milking cows one half hour, feeding horses one fourth hour.
4. Always account for all labor: any work put in for neighbors should be marked as follows: (E) exchange, (G) gratis, (P) paid.

All work is accounted for down to the one fourth hour. We will speak of all labor in terms of hours,-- man hours, and horse hours. By "Man hour" we mean the work of one man for one hour; and by "Horse hour" the work of one horse for one hour. Thus if I plowed with four horses from seven A. M. to twelve, I would speak of it as five man hours and twenty horse hours. This method is used by all cooperators reporting.

A careful study of ^{Plates} ~~Tables~~ (1 & 2) show reports properly filled out, as they come from the farm. It will be noticed that one report is a "Regular workers" and the other a "Proprietors". The only material difference in these reports is that there is space provided on the proprietor report for any extra labor that may be put in on the farm. This refers to any work employed for a short time only. All regular workmen are supplied with pads of blanks. These blanks are approved by the proprietor or superintendent as soon as made out, and are then mailed each week to the compiling office.

PLATE I.

Form A.

Regular Worker's Daily Time Sheet.

U. S. Department of Agriculture
in cooperation with

J. L. Smith Columbia, Mo.

Day of Week: Thursday

Date April 6

19 11.

KIND OF WORK. Include implements used, number of loads, etc.	FIELD.	MAN HOURS.	HORSE.	
			NO.	HOURS.
4.30—				
5.00— Feeding Horses		$\frac{1}{2}$		
5.30— " Cows & Milking		$\frac{3}{4}$		
6.00— Breakfast				
6.30— Care of Horses		$\frac{1}{2}$		
7.00— " " Cows		$\frac{1}{2}$		
7.30— " " Chickens		$\frac{1}{2}$		
8.00—				
8.30—				
9.00— Making Fence	D	4		
9.30—				
10.00—				
10.30—				
11.00—				
11.30—				
12.00—				
12.30— Dinner				
1.00—				
1.30—				
2.00— Plowed for corn				
2.30— 12 In. Gang				
3.00—				
3.30— Horses (4-6)(3-5)	E	4	4	16
4.00—				
4.30—				
5.00—				
5.30— Feeding Cattle		1		
6.00—				
6.30— " Horses		1		
7.00—				
7.30— Supper				
8.00—				
WORKMAN J. L. Smith	TOTAL HOURS	12 $\frac{3}{4}$		
REMARKS			REPORT O. K.	

PLATE II.

Form B. PROPR OR'S OR SUPERINTENDENT'S DAILY LABO EPORT.

U. S. Department of Agriculture
in cooperation with

J. L. Smith, Sr., Columbia, Mo.

Day of Week: **Thursday** Date **April 6** 19 **11.**

KIND OF WORK. (INCLUDE IMPLEMENTS USED, NUMBER OF LOADS, ETC.)	FIELD.	MAN HOURS.	HORSE.	
			NO.	HOURS.
4:30—				
5:00—				
5:30—				
6:00—				
6:30—				
7:00—				
7:30—				
8:00—				
8:30—				
9:00—				
9:30—				
10:00—				
10:30—				
11:00—				
11:30—				
12:00—				
12:30—				
1:00—				
1:30—				
2:00—				
2:30—				
3:00—				
3:30—				
4:00—				
4:30—				
5:00—				
5:30—				
6:00—				
6:30—				
7:00—				
7:30—				
TOTALS,				
Give weather and crop conditions, general notes, etc.				

EXTRA LABOR.

[illegible]

Wage rate: One dollar per day and dinner.

8-88

Signed J. L. Smith, Sr.

Upon their receipt at the compiling office, these reports are carefully checked up, any ones not complete are returned to the workmen for correction, and any necessary information missing is written for immediately. Then when all information is at hand the data is ready to be compiled.

II

COMPILING DATA.

In order to compile the data uniformly it was necessary to formulate a " Labor Classification ". The classification adopted must necessarily be a detailed one to handle the great variety of items that will be coming in. It must charge all labor up to the account to which it is reasonably chargeable. The classification has had to be altered in many ways since it was first used, in order that it might meet the new problems coming up for solution as the work progressed. Below is given in a brief way the classification as it is now in use.

Labor Classification.*

A. Live Stock Labor.

Labor on Live Stock is separated into the different classes as follows:

1. Horses.

Under this heading is included all work on all the horses

* This classification is in part the one originated by the United States Department of Agriculture and is being used by them at present, with a few minor changes.

of the farm, such as feeding, grooming, harnessing, cleaning stalls, shoeing, putting in pasture, etc. In the farms we are considering only the work stock is included. This workstock is horses and mules. Special accounts are usually carried with other classes of horses than work stock.

2. Cows.

The labor under this heading includes care of dairy herd, such as feeding, milking, cleaning stalls, veterinary work, etc. This includes work on dry cows and herd bulls also. As the brief history of each farm will show, nothing but milk cows were kept on any one of them. Two of the farms are dairy farms, and the distinction drawn between care of cows and care of milk on these comes when the milk is taken from the cows to the milk room.

3. Milk.

This account includes all work on milk after milking, such as separating, bottling, marketing, cleaning milk room and vessels, etc.

4. Hogs.

This division includes all work on hogs; such as, feeding watering, cleaning pens, bedding, breeding, etc.

5. Sheep.

We place all labor concerned in feeding, breeding, and care of flock, shearing, etc., under this heading.

6. Poultry.

All work put in, in the care of poultry, cleaning their quarters, watching incubator, attention to brooder, etc., is placed under this head.

B. Miscellaneous.

1. House Hold.

All labor pertaining to the farm home is included in this account. Such work as chopping and hauling wood for home use, helping in the house, going after groceries, etc., fall in this class.

2. Storage.

Under the heading, storage, is included such work as sorting apples, sacking grain, grinding feed, testing and sorting seed, bailing hay, etc. This account is distributed at the close of the year, to the several accounts to which the several items are chargeable. For example, an item like "treating oats seed before planting" will appear in the field account to which that seed was applied as "care of seed".

3. Marketing.

This account has been carried in a double column to care for all items of purchase or sale. Time spent buying and bringing home stock, implements, feed, seed, or supplies of any kind as well as selling or marketing of all farm products are entered under this account in one of the columns. The first is marked "in" for products brought onto the farm, and the second, "out" for products sold. The items of this account are likewise distributed at the close of the year.

4. Equipment.

Under this heading is placed all work put in, in caring for the farm equipment not included under the legal defi-

nition of Real Estate, such as repair on plow, setting up a machine, grinding axe, storing tools, etc.

5. Real Estate or Improvements.

The labor of this account would include all that put in in maintaining or improving the real estate. In our discussion later on we separate these two classes of work, so it will be well to bear them in mind. Under this account would appear such items as repair of fences or buildings; clearing, and filling ditches, etc.

6. General Farm.

This account is used to accomodate all labor items on the farm that cannot possibly be charged to any enterprise. Because this account is a "waste-basket", so to speak, great care is exercised that no item be charged to it, that can in any way be placed in the account of a particular enterprise. Such items as "superintendence" "correspondence" personal use of farm horses by hired laborers, etc. appear in this account.

7. Proprietor.

Here is found all hours of labor devoted to the personal interests of the proprietor. His personal labor for private interests is never recorded here, however. Only the work of helpers on the farm, when such work is for his personal interest, and any horse labor used by him in personal or private enterprises, are charged up to this account. Such items as "Attending church", where horses are used, workman driving proprietor or family to ~~catch~~ a train, etc., would appear; horse labor only being charged in the first

instance, and both horse and man labor, in the last instance.

8. Outside Labor.

In this account is placed all labor performed off the farm by the working force of the farm. This work is always designated as Exchange(E); Gratis(G); Paid for(P). This would include helping neighbors thrash, or haul hogs, etc.

9. Garden.*

This heading includes all labor put in on garden crops, not counting the work of women; such as plowing garden, hoeing potatoes, etc.

C. Field Crops.

All labor on field crops of any importance is carried on a special field sheet showing the exact time and dates of any and all operations. Plates 3 and 4 are illustrations of how the labor would appear on the miscellaneous sheet and on the labor sheet.

Any special line of work has a special account or accounts devoted to its use. This applies however to special farms. Two of the farms(3 & 4) under consideration, make use of this provision to a slight degree, but on general farms the classification mentioned is found to be sufficient.

When the data has been checked up, it is then ready to be classified. For purposes of classification, blanks like those shown in Plates ⁴ 3 and ⁵ 4 are used. It will be noted by studying Plate ⁴ 3 or the

* With reference to the garden account, we would say that in many cases it is carried with a miscellaneous crop account, thus including such crops as pumpkins, sweet corn, potatoes, etc., grown for home use.

LANEIOUS LABOR.

Farm of J. L. Smith

P. O., Columbia, Mo

State,

Co., Boone

Month, Nov., 1917

	Marketing										Eggs						
	Horses		Cows		Milk		Hogs		Poultry			Household	Storage	Marketing		New	
	Extra	Reg. Horse	Extra	Reg. Horse	Extra	Reg. Horse	Extra	Reg. Horse	Extra	Reg. Horse				Extra	Reg. Horse		Extra
1	4 ²	13 ²	4 ² 5	1 ²	1	2										2 ² Shipping Horses	
2	4 ²	13 ²	6 3	2		2						13 ² 1	Hulling Peas				
3	4 ²	12 ²	1 ²	2								6 ²	" "				
4	4 ²	13 ²	5 ² 4	1 ²								12 ² 2	" "				
5	3 ²	12 ²	3 ² 2 ²	1													
6	3 ²	12	3 ² 3 ²	1		1 2						6	" "				
7	3	12 ²	5 ² 3	1 ²		5						2 ² 2 ²	Hauling Silage	1	Packing Rabbits		
8	3 ²	12 ²	4 ² 2 ²	2 ²													
9	4 ²	13 ²	5 ² 7	2								10 ² 7	Shredding Fodder				
10	4 ²	12	4 ² 2	1 ²		1 ² 3						2	" "				
11	3 ²	14 ²	4 ² 3	3								5 ² 2	Grinding Corn				
12	3	14	4 ² 2 ²	1 ²													
13	4 ²	22 1	5 ² 3	1 ²		12 ²						8 ² 3	Cutting Hay				
14	3	14 ²	2	1		3						9 ² 2	" " Shredding 12HP Engine	9 ² 10	Hogsto Market		
15	5 ²	12	6 ² 4	2								1 ² 3	Borrowed Shelter Home				
16	3 ²	12	5 ² 3 ²	2 ²	1	2 1						15 ² 11	Hauling Straw				
17	10 ²	12 ²	5 ² 5	1	3	6 ²						2 1	" "				
18	4 ²	16 ²	5 ² 4	1 ²		4						3 ² 3 ²	Sorting apples	5 ² 11	After Bran.		
19	2 ²	13 ²	4 ² 2 ²	1													
20	2 ²	11 ²	5 ² 2 ²	1 ²		5											
21	2 ²	12 ²	6 ² 4	1 ²		2 ²						1 ² 1 ²	" corn		2 ² packed Rabbits		
22	3 ²	14	6 4	1													
23	4 ²	16 ²	5 ² 2 ²	1 ²		4 3						6 ² 3 ²	cleaning wheat.	3 ² 7	" " 3 ² 7 Wheat To Mill.		
24	2 ²	16 ²	4 ² 2 ²	1 ²		6 4						2 3 ²	Sorting apples.				
25	3 ²	14	6 ² 4	1 ²		1											
26	2	16 ²	1 ²	2													
27	3 ²	14 ²	5 ² 3 ²	1	2	4						12 ² 2	Shredding corn				
28	4 ²	17 ²	5 ² 3 ²	1 ²	3	8											
29	3 ²	15 ²	5 ² 3	1 ²	2	4 ²						3 ² 4	Hauling Fodder				
30	3	15 ²	6 ² 3 ²	1 ²								2 1	" "				
31																	
Totals	115 ²	424 ²	143 ² 40 ²	4 ²	5 ²	76 ² 13						119 41 ²		9 18		16 ² 17	

Rent	Real Estate						Total Misc.	Total Field	Grand Total.	REMARKS
	Maintenance	Perm. Imp.	Main.	Gen. Farm	Misc. Crops	Outside				
	Extra Reg. Horse	Extra Reg. Horse	Extra Reg. Horse	Extra Reg. Horse	Extra Reg. Horse	Extra Reg. Horse				
						8 ² 9 ²	35 ² 22	21 16	56 ² 38	
3 ² Oiling Horses							45 ² 4	15 ² 12 ²	61 16 ²	
						9 ² 19 ²	37 ² 19 ²	29 17 ²	66 ² 37	
						9 ² 19 ²	46 ² 25 ²	20 ² 11	67 ² 36 ²	
							20 ² 2 ²		20 ² 2 ²	
							30 14 ²	10 ²	40 ² 14 ²	
						10 20	39 ² 35 ²	16 ²	56 ² 35 ²	
2 Put Haycups away						10 20	33 ² 32	22 4	55 ² 36	
							46 43 ²	11 ² 7 ²	57 ² 51	
							25 20 ²	21 ² 13	53 ² 33 ²	
							37 8	22 ² 26 ²	59 ² 34 ²	
							22 ² 2 ²		22 ² 2 ²	
2 Greased Wagon							85 ² 16 ²		85 ² 16 ²	
							41 ² 20	7	48 ² 20	64 Hogs wt. 1350 ² For 5.75 per cwt
3 Repaired corn Sheller							41 ² 19 ²	13	54 ² 19 ²	
							47 ² 33	6 ² 3	54 36	
3 Fixed Temporary Crick							42 ² 8		42 ² 8	
							42 ² 13 ²	15 ²	58 ² 15 ²	
							21 10 ²		21 10 ²	
							26 14 ²	18	44 18 ²	
							26 ² 8 ²	22 ² 6	49 14 ²	
							24 ² 4	24 ² 17 ²	53 ² 21 ²	
							50 ² 28 ²	8 ² 2 ² 17	58 ² 52 ² 48 ²	28 lbs wheat @ 85¢
							42 17 ²	10 9 ²	52 27	
							31 ² 4	10 ² 3 ²	42 7 ²	
							21 ²		21 ²	
							41 ² 14 ²	16 ² 19 ²	58 ² 34 ²	
2 Fixed Engine							40 12 ²		40 12 ²	
1 sharpened Tools							41 ² 16 ²	9 9	50 ² 25 ²	
							27 4 ²	29 ² 17 ²	56 ² 22	
11 ²	7 ² 5		44 ² 14		4 ²	62 106 ²	1084 ² 477 ²	8 ² 387 ² 210 ²	8 ² 1472 ² 688	

P. O., Columbia

State, Mo.

County, Boone

Field "C" 8 Acres Corn.

Plowing	Discing	Harrowing	Planting	Replanting	Harrowing	Cultivating	Mus.
Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra
4/8 8 16							
4/10 10 20							
4/11 10 20							
4/12 X 10 20							
	4/13 X 5 20						
	4/14 X 6 24						
		4/15 X 7 14					
		4/29 X 6 13					
		4/30 X 7 14	4/30 X 8 16				
				5/12 2	5/12 X 7 14		
						5/11 4 8	
						5/20 X 6 12	
						5/29 10 20	
						5/30 X 2 4	
							6/10 1 2
						6/11 X 10 20	
							10/30
							11/1
							11/2
							11/3 X
18" walking Plow	14 disc Deere	60 Tooth Lever Harrow.	Black Hawk 1 Bu. Reids @ \$3.25	By Hand.	60 Tooth Lever Harrow	14 Disc Deere	yield

							Total ls.
ing							
g. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse	Date Extra Reg. Horse
							8 16
							10 20
							10 20
							10 20
							5 20
							6 24
							7 14
							6 13
							15 30
						Apr.	Total 77 177
							9 14
							4 8
							6 12
							10 20
							2 4
						May	Total 91 38
							1 2
							10 20
						June	Total 11 28
16							8 16
						Oct	total 8 16
20							10 20
20							10 20
20							10 20
						Nov	Total 30 60
	</						

"Miscellaneous Labor" sheet that this form takes care of all labor not field labor, put in on a farm in one month. The three division column is used to care for (1) extra man labor marked Ex., (2) regular man labor marked Reg.⁽³⁾, and horse labor marked Horse. The last three columns on the sheet are used to total the "Miscellaneous", and "Field" into a "Grand total" for the purpose of checking. Plate 4 illustrates the way in which a Field Labor sheet is used. The record of but one field is put on a sheet, and each line on the sheet is devoted to a day's work, no two day's work being put on the same line. The dates are placed in the extreme left column; each other column, - as many as are necessary - takes care of the individual operation as "Breaking for corn", "Planting", "Harrowing", etc., each operation taking a separate column. If one "Field Labor" sheet does not hold all the data of one crop, a second sheet is used. It will be noted that the total of any one column gives the total labor required to complete that operation.

Monthly Statement.

A monthly statement is made out and a copy sent to the Superintendent or Proprietor cooperating. This monthly statement (see Plate 5) shows the following facts: -

- (1) Total hours put in by each workman, week-day and Sunday being separated.
- (2) Average hours per week-day worked by each man.
- (3) Total horse hours worked and average per day for each horse.
- (4) Total hours put in on each enterprise on the farm; in other words, the separation of labor according to the classification given above is shown.

PLATE III.

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY,
OFFICE OF FARM MANAGEMENT.

MONTHLY LABOR REPORT.

August 191 2

Farm of John Smith.

SECTION OF FARM ECONOMICS.

Number of Week Days in the Month 27

Number of Sundays in the Month 4

P. O. Address Columbia, Mo.

Date

WORKMEN—HORSES	TOTAL HOURS WORKED DURING THE MONTH	WEEK DAYS ACTUALLY WORKED				SUNDAYS ACTUALLY WORKED		
		NUMBER	TOTAL WEEK DAY HOURS	AVERAGE		NUMBER	TOTAL SUNDAY HOURS	AVERAGE
Workman No. 1	296 $\frac{3}{4}$	27	279	10.3		4	17 $\frac{3}{4}$	4.4
" " 2	306 $\frac{1}{4}$	"	292 $\frac{3}{4}$	10.8		4	13 $\frac{1}{2}$	3.3
" " 3	286 $\frac{3}{4}$	"	269 $\frac{1}{2}$	9.9		4	17 $\frac{1}{4}$	4.3
" " 4	244	21	237 $\frac{3}{4}$	11.3		3	6 $\frac{1}{4}$	2.0
" " 5	305 $\frac{1}{2}$	27	289 $\frac{1}{2}$	11.09		4	16	4.0
Proprietor	127 $\frac{1}{2}$	11	118	5.		3	9 $\frac{1}{2}$	3.1
Total Regular	1566 $\frac{3}{4}$	22	1496 $\frac{1}{2}$				80 $\frac{1}{4}$	
Extra	202 $\frac{1}{2}$	22	202 $\frac{1}{2}$					
Total Man Hours	1769 $\frac{1}{4}$							

Horse No. 1.	192	27	192	7.7				
" " 2.	192	"	192	7.7				
" " 3	181 $\frac{1}{2}$	"	181 $\frac{1}{2}$	6.7				
" " 4	181 $\frac{1}{2}$	"	181 $\frac{1}{2}$	6.7				
" " 5	183 $\frac{1}{4}$	"	183 $\frac{1}{4}$	6.8				
" " 6	183 $\frac{1}{4}$	"	183 $\frac{1}{4}$	6.8				
" " 7	119 $\frac{1}{2}$	"	108	4.0		4	11 $\frac{1}{2}$	2.47
Total Horse Hours	1233	27	1221 $\frac{1}{2}$	6.5				

PLATE III.
MONTHLY LABOR REPORT.
(Concluded)

Report for August.

Farm of John Smith.

Account	Extra hrs.	Man hrs.	Horse hrs.	Total Cost
Horses		133 $\frac{1}{4}$	5 $\frac{1}{2}$	20.54
Cows		338 $\frac{1}{2}$	6 $\frac{1}{2}$	51.43
Hogs		70	20 $\frac{1}{2}$	12.55
Milk		154	73 $\frac{1}{2}$	30.45
Poultry		3 $\frac{3}{4}$	-	.56
House Hold		77	2 $\frac{1}{2}$	11.80
Storage		19 $\frac{1}{2}$	-	2.92
Marketing		23	29 $\frac{1}{2}$	6.40
Equipment		64 $\frac{1}{4}$	18	11.44
Improvements	175 $\frac{1}{2}$	13 $\frac{1}{2}$	4 $\frac{1}{2}$	25.29
Gen. Farm		11 $\frac{1}{2}$	56 $\frac{1}{2}$	7.37
Miscellaneous Crops		47	6 $\frac{1}{2}$	7.70
General Crops		4 $\frac{3}{4}$	-	.71
Proprietor		-	12	1.20
Field A-1		9 $\frac{1}{4}$	16 $\frac{1}{2}$	3.04
" A-2		4 $\frac{3}{4}$	9 $\frac{1}{2}$	1.66
" A-3		56	112	19.60
" C-1		39 $\frac{3}{4}$	84 $\frac{1}{2}$	14.41
" C-2		13 $\frac{1}{4}$	23 $\frac{3}{4}$	4.34
" E-1		248 $\frac{1}{4}$	482 $\frac{1}{2}$	85.58
" E-2		17 $\frac{1}{2}$	29	5.53
" E-3		11 $\frac{1}{2}$	23	4.02
" E-4		1 $\frac{1}{2}$	3	.52
" E-5		3 $\frac{1}{4}$	6 $\frac{1}{2}$	1.14
" F-1		13 $\frac{1}{2}$	27	4.73
" F-2		17 $\frac{1}{2}$	24	5.03
" F-3		41 $\frac{3}{4}$	39 $\frac{3}{4}$	10.24
" G	27	117	93 $\frac{1}{4}$	30.38
" I-3		8	16	2.80
" I-4		3 $\frac{3}{4}$	7 $\frac{1}{2}$	1.31
TOTALS	202 $\frac{1}{2}$	1566 $\frac{3}{4}$	1233	384.63
Rates	13¢	15¢	10¢	

In addition to the monthly statement sent the cooperator, he is given at the close of the year a report similar to those given ~~be-~~^{later} summaries of Farms number 1, 2, 3, and 4. This report we call an "Annual Summary" as it shows, to put it briefly, the distribution of the labor, the cost of producing, and the profit or loss on the farm crops for the year. A detailed study of the summaries of the farms mentioned above will give a better idea of just what the summary means, however.

The Cost Factors.

In the following study of the summaries, it will be wondered on what basis the cost is figured. We have already given a detailed account of how the labor ~~cost~~ factor is obtained. A flat charge of fifteen cents per man hour, and ten cents per horse hour is made in all the summaries to make them comparable. From the studies we have been making the past three years, we find that while in some cases the actual cost per hour of labor is a little lower than this, yet these figures are very nearly the actual cost of man and horse labor. Because of this fact and because we must have a common basis for comparison, we have used this charge throughout. The other main factors entering in are as follows:

Seed	Taxes
Equipment	Interest
Manure.	

In addition to these, we have, under special conditions, or in connection with certain crops, other charges among which will be found,

thrashing, fuel, twine, charges from the previous year, such as seed, fall plowing or manure charges carried over. For the seed charge we have always made such a charge as will just cover the actual cost of the seed used. The equipment charge is computed from the following figures, taken from the Minn. Exp. Sta., Bulletin 97. The values are figured on the per acre ^{per year} basis, and represent the depreciation of machinery throughout all the operations connected with any one of the different crops when grown in the ordinary way.

Grain Machinery.

Binders - - - - -	\$.168
Drills & Seeders - - - - -	.080
Wagons, Sleds, & Racks - - -	.042

Corn Machinery.

Binders - - - - -	.666
Planters - - - - -	.092
Cultivators - - - - -	.109
Wagons, Sleds & Racks - - -	.095

Hay Machinery.

Mowers - - - - -	.213
Rakes - - - - -	.094
Wagons, Sleds, & Racks - - -	.076

All Crop Machinery.

Plows - - - - -	.068
Harrows - - - - -	.014
Disks - - - - -	.061

In addition, it has been necessary to assume some equipment charges not given in the above-mentioned bulletin. These charges we have made

as follows:

Tedder - - - - - \$.200 Per Acre.
Shredder - - - - - .312
Ensilage Cutter - - - - .416
Gasoline Engine - - - - .287

These assumptions we have made from the following data.

Tedder charge per Acre, purely assumptive.

Shredder. Depreciation per year is \$12.50 and this particular machine cuts on an average about forty acres of corn, peas, etc. per year.

Silage Cutter. Depreciation per year is \$12.50, and it cuts on an average, about thirty acres per year.

Gasoline Engine. Depreciation per year \$20.00, and it cuts approximately seventy acres per year.

These figures apply to the particular conditions on the one farm for which the machines are used, and are, we believe, reasonable.

The tax charge is simply the ordinary charge for the community in which the farm is located. Interest is charged on the same basis as taxes. For the manure charge, we take fifty per cent of the estimated value in the lot, plus the labor cost of hauling. If the labor cost of hauling is already charged up to the field, as is the case in Farms 1, 2, and 3, we must deduct this charge to avoid making a double labor charge.

Let I equal Initial value, or value in pen or barn.

" L " Labor cost of hauling.

The formula would read as follows:

Case I. Manure charge equals $\frac{I \text{ plus } L}{2}$.

Where the charge for hauling has already been made against the field, the formula would be:

Case II. Manure charge equals $(\frac{I \text{ plus } L}{2}) - L$.

Numerically it would work out as follows:

Letting I equal \$1.00

" L " .70

In case I: Manure charge equal $\frac{\$1.00 \text{ plus } .70}{2}$ equal \$.85

" " II: " " " $(\frac{\$1.00 \text{ plus } .70}{2}) - .70$ equal \$.15

Thus you see the labor charge in the first part of the field record plus the manure charge later, would just balance the straight half charge of both manure and labor cost of hauling, in the manure charge space. We assume that the crop of the first year gets 50 per cent of the value of the manure; the crop of the second year, 30 per cent; and that of the third gets 20 per cent. We realize that these three proportions are purely arbitrary, and that they will fluctuate with different conditions, seasons, kind of manure, amount of rainfall, kind of crop, condition of soil, etc. But taking the charge through a series of years, and for a number of farms, you can see that the results will be comparable, and that this charge will act the same on all fields. With this explanation we will go on to the figures themselves. Before taking up the figures, however, we will endeavor to give an idea in a brief way of the farms.

III

DESCRIPTION AND HISTORY OF FARMS.

Farm No. 1.

This is a 103 acre farm, in Cooper county. The land is very rough with a loam to clay loam soil, slightly above medium in productive power. It would produce of an average season, probably forty bushels of corn and other crops in proportion. A creek bottom of about twelve acres is often flooded in wet seasons by a stream which flows through the farm. A good part of this bottom was flooded in 1910 thus accounting for some heavy losses.

As to type, this would be called a general farm. The owner handled pure bred Shropshires, Poland Chinas, and Reid's Yellow Dent Corn. He is also a successful grower of soy beans, cowpeas, and rape. A double rotation was practiced on this farm, as follows:

	<u>1st. year</u>	<u>2nd. year</u>	<u>3rd. year</u>
Primary	Corn and Cowpeas.	Oats and Clover.	Clover.
Secondary	Corn and Cowpeas.	Soy beans and Rye.	Rye and Rape.

In the summary given later it will be seen that this rotation was not carried out entirely, because of the fact that this was its first year, and it is usually impossible to adopt a rotation entirely the first year; it must be worked up to.

Because of the very rough nature of the upland and the overflowing tendency of the bottom land, a comparatively small portion of the farm could be depended upon. As the summary shows, only 73.7 acres of the

farm were tillable. Twenty-seven acres of this was wet or subject to overflow. In dry seasons, 62 acres could be counted on and in wet seasons this would be cut down at least ten acres, leaving not more than 53 acres or practically 50 per cent from which he might be sure to a certain degree of obtaining a crop.

On this farm were kept five head of work stock, two cows, nine brood sows, and five ewes. The work stock consisted of three mules and two horses, of not a very satisfactory kind. The brood sows were pure bred Poland Chinas, large type; and the ewes were pure bred Shropshires. In addition, he had two registered rams and two lambs. The investment in machinery was 515 dollars. It must be born in mind, that while the fertility of this farm is a little above the average, yet its extreme roughness and small per cent of cultivated land makes it a difficult farm to handle profitably.

Farm No. 2.

The second farm we will study is a 160 acre, Scotland county farm. Moderately rolling, but not enough to be called rough, with practically no waste land, the farm is almost ideal in the way it lies. It is a North East Missouri prairie farm, with a soil ranging from clay loam to loam in texture. The farm had been rented for five years before the present operator took charge, and made these records, consequently the farm was in rather poor condition. As a result of renting, the soil was low in organic matter, and had washed badly; it had been handled when too wet and was in very poor physical condition.

The rotation followed was essentially that practiced on Farm number 1, and like farm number 1, did not at that time have the rotation in full swing. The productiveness of this farm would be represented by a 30 bushel per acre yield of corn and other crops in proportion. In other words, it is approximately three fourths as productive per acre as Farm number 1. But when we consider that practically all the land is tillable, this gives the advantage to Farm number 2, when we look at the farms as a whole.

The work stock kept on this farm consisted of two high grade Percheron mares, and four mules weighing about twelve hundred pounds apiece. The mares besides doing their share of the work, raised a mule colt apiece in the season of 1910. This seems an admirable arrangement of work stock. Our records bring out the following facts on this particular farm: first, the cost of keeping the mules, was only about four-fifths that of average work horses; second, the cost of keeping the mares was greater when they were raising colts than that of mares not raising colts, but the profit realized by producing these colts more than compensated for the extra cost of keeping the mares.

Besides the work stock, one cow, ten Duroc-Jersey brood sows, and thirty-five western ewes were also kept. On this farm as on Farm number 1, just enough cows were kept to supply home needs.

The western ewes were ^{to be} handled briefly as follows: they were bought in the fall at two or three years old, bred to pure bred Down rams, to lamb February fifteenth to March fifteenth. The lambs were pushed by feeding grain, and sold by July first, together with any ewes that appeared unsatisfactorily productive or too old to keep over another year.

The ewes were kept a second year, handled in the same way as the first, and then were all marketed with the second lamb crop. A new flock ^{was} ~~saw~~ to be purchased that fall, and the whole operation repeated.

With reference to the equipment kept, the inventory showed an investment of 510 dollars. In the later discussion, it will be well to bear in mind that one of the greatest handicaps on this farm is the poor condition of the soil.

Farm No. 3.

Farm three is a 160 acre Boone county farm, nicely rolling, and very low in fertility. It would not produce more than twenty bushels of corn per acre, thus making it the lowest yielding farm on the list. By comparison, it is one half as productive as Farm number one, and three-fourths as productive as Farm number two. The soil runs from clay loam to silt loam in texture. In addition, the farm had been rented for many years, which does not usually add to a farm's condition.

The cropping system practiced on this farm, consisted of a four Year rotation, as follows:

	<u>1st. year</u>	<u>2nd. year</u>	<u>3rd. year</u>	<u>4th. year</u>
Primary	Corn and Cowpeas	Oats and Clover	Clover	Rye and Cowpeas
Secondary	Corn and Cowpeas	Rape and Rye	Rye and Rape	Sorghum

On this particular year, the proprietor sublet the oats field so

he had nothing to do with that crop.

With reference to equipment, we find that the work stock consisted of two draft mares, two rather common horses, and two light mules, in all six head of work stock.

Dairying was a special line of stock work on this farm. There were seven Holstein cows and their product sold as whole milk to a local market. In addition to this stock, he had eight heifers, five Duroc-Jersey brood sows, and a herd boar.

The machinery was very inadequate, there being only about 200 dollars worth on hand. The improvements on this farm were also so inadequate, as to cause great inconvenience, and make a very material difference in the profits of the business. There were no good sheds for stock, and the dairy work was carried on with the greatest inconvenience. Just to illustrate; the milking had to be done a quarter of a mile from the house and the milk hauled to the house with a horse, before it could be separated and cared for. Such inconveniences lower the efficiency of labor to a considerable degree.

In our subsequent discussion, it must be remembered that the productive power of this soil is so low that it is practically impossible to produce corn at a profit and this means that approximately the same is true of other grain crops. The problem on this farm is of course to increase the productive power of the soil to a point where crops may be profitably grown.

Farm No. 4

This is a Missouri river hill farm of three hundred acres, located in Franklin county, the home of the Missouri Merchaum. It is typically rolling and cut up by draws. It is of the well known Loess soil type and consequently very productive. It is not unusual to obtain yields of sixty to seventy bushels of corn per acre.

As to type of farm, this is primarily a dairy farm, one of the most productive herds of Jerseys in the state being found here. Attention is also paid to the breeding of Berkshire swine. Being cut up by draws, cultivation is rather more expensive than it would otherwise be. The fields are cultivated very intensively, as high as three crops being grown on the same field in the same season. They do not use a soiling system, but the dairy enables them to utilize many feeds at times when they would otherwise be wasted. The product of the dairy is cream, which is sold to a special market, while the skimmed milk is fed to the hogs and poultry on the farm. To give an idea of the efficiency of this dairy herd, I might say that during the year 1911, notwithstanding the fact that abortion caused severe losses, over 2300 dollars worth of cream alone was sold from 18 cows.

The crops grown here are of many kinds. Cob Pipe corn is usually grown because of the nearness of the pipe factory. And this type of soil is especially well adapted to the production of cob pipe corn, producing a superior quality of cob. The cobs have often been sold for more than the corn that grows on them is worth. Cartner's corn is also liked very much. Wheat, oats, rye, cowpeas, Canadian peas, soy beans, alfalfa

and clover are the other principle crops grown.

The workstock on this farm consists of three mares and four geldings for regular work. In addition there are three driving horses which are used for light work whenever extra horses are required. Two of the mares are usually required to raise colts, dependence being placed on the Geldings, ^{during} in foaling time, ^{of the mares}

Twelve ^{purebred} regular Jerseys and eight grades constitute the dairy herd. Two animals were lost through the effects of treatment for abortion early in the season, leaving just eighteen cows in milk for the year. In addition, there were eight ^{yearling} regular calves and a herd bull.

The hogs consisted of five sows and one boar all pure bred Berkshires.

The equipment required to operate this farm represents an investment of 2650 dollars, which is unusually good. This is an exceptionally well equiped dairy farm and because of the excellent inherent quality of the soil, and the good treatment it has received, the results from operation are very good. All manure is put back onto the fields each year. The liquid manure from the dairy barn is piped to a covered reservoir outside, from which it is hauled to the fields by means of a tank.

It is true, the work stock proposition on this farm may seem to be more expensive than necessary, but the managers are satisfied with the results. There are three grown sons at home, for whom the driving horses are kept. An exceptional feature about this farm is the fact that all of the sons, though grown men and exceptionally good managers, every one of them, are still at home and seem to have the one ambition of making a famous dairy herd. This is an excellent example of keeping boys on the farm. The reason for this may be gathered from the follow-

ing facts. There is no "boss" on this farm. All are jointly the managers. Over 650 dollars were given to the family last year in cash, for personal use and most of this went to the boys. They have their horses and go when they please. They know they can make money, and have more freedom there than under any other conditions, consequently it is a desirable place to be. They are always consulted in buying and selling, and by showing their Jerseys at fairs and shows, they are enabled to see a great deal of country and keep up with the progress of events in their line of work. Because of their business, they have the privilege of meeting many other prominent breeders of the country. They have a good home and are not treated as hands.

IV.

T H E

F A R M S U M M A R I E S.

FARM I. (1910)

FARM II. (")

FARM III. (")

FARM IV. (1911)

FARM NO. 1.

TABLE 1.

4/1/1910-12/19/1910.

LABOR SUMMARY.

Months	WORKMEN					WORK HORSES	
	Wilson	Harriman	Extra help	Total hours	Av. man hour per wk. day.	Total Reg.	Av. per day.
April	281 $\frac{1}{2}$	283 $\frac{3}{4}$	9	574 $\frac{1}{4}$	11.05	577 $\frac{1}{2}$	4.44
May	262 $\frac{1}{2}$	251	18 $\frac{1}{2}$	532	10.2	631 $\frac{1}{2}$	4.85
June	298 $\frac{1}{4}$	282	-	580 $\frac{1}{4}$	11.2	754 $\frac{1}{4}$	5.8
July	331	272 $\frac{1}{2}$	15	618 $\frac{1}{2}$	11.9	691 $\frac{3}{4}$	5.24
August	183 $\frac{1}{4}$	234 $\frac{3}{4}$	-	481	10.3	484 $\frac{1}{2}$	3.72
September	281 $\frac{1}{4}$	260 $\frac{1}{2}$	37	578 $\frac{3}{4}$	10.9	417	3.21
October	172 $\frac{1}{2}$	200	44	416 $\frac{1}{2}$	8.6	571	4.23
November	-	255	55	310	11.9	284	2.18
December	-	170 $\frac{1}{2}$	43	213 $\frac{1}{2}$	11.2	228 $\frac{1}{2}$	2.31
Totals	1810 $\frac{1}{4}$	2210	221 $\frac{1}{2}$	4241 $\frac{3}{4}$		4630	

FARM NO. 1.

Table - 2.

Year 1910

SUMMARY- Labor Costs.

Account	Man Hours	Horse Hours	Costs.
Horses	297	49 $\frac{1}{4}$	\$ 49.48
Cows	235 $\frac{3}{4}$	8 $\frac{1}{4}$	36.18
Hogs	261 $\frac{1}{2}$	224 $\frac{1}{2}$	61.68
Sheep	158 $\frac{1}{2}$	48 $\frac{1}{2}$	28.63
Poultry	7 $\frac{3}{4}$	6	1.76
House-hold	209 $\frac{3}{4}$	134 $\frac{1}{2}$	44.91
Equipment	193 $\frac{1}{2}$	141 $\frac{1}{2}$	43.18
Improvements	410	222	83.70
Gen. Farm	380	375	94.50
Outside Labor	165 $\frac{1}{4}$	169 $\frac{1}{2}$	41.73
Proprietors	-	565 $\frac{1}{2}$	56.55
Seed Corn	187 $\frac{1}{2}$	38	31.92
Moving	89	152	28.55
Demonstration	126 $\frac{1}{2}$	90 $\frac{1}{2}$	28.03
Garden	55	-	8.25
Field A. clover	112	187	35.50
" B. Rape	8 $\frac{1}{2}$	23	3.57
" B2 corn& Cow-			
peas	85 $\frac{1}{4}$	185	31.28
" D "	107 $\frac{1}{4}$	148 $\frac{1}{2}$	30.95
" G "	477	812 $\frac{1}{2}$	152.80
" H tim.&Clover	71	77 $\frac{1}{2}$	18.40
" I1 oats& cow-			
peas	91 $\frac{3}{4}$	190 $\frac{3}{4}$	32.84
" I2 cowpeas	161	174 $\frac{1}{4}$	41.62
" I2 soy beans	178 $\frac{1}{4}$	246 $\frac{1}{2}$	51.38
" J corn&cowpeas	40	82 $\frac{1}{4}$	14.22
" L alfalfa	90 $\frac{1}{4}$	158 $\frac{1}{4}$	29.42
1911 crops	42 $\frac{3}{4}$	118 $\frac{1}{2}$	18.23
Totals	4241 $\frac{3}{4}$	4630	1099.26

Rates:- Man 15¢. Horse 10¢

FARM NO. 1.

TABLE 3.

Year 1910.

S U M M A R Y:- FIELD CROPS.

Crop	Cost				Income		
	Acres	Total	Per Acre	Per Unit	Total	Per Acre	Per Unit
A -clover	16.2	117.33	7.243	93.864	17.50	1.080	14.000
B-1 rape	3.6	19.71	5.468	-	56.42	15.672	-
B-2 corn & cowpeas	3.6	51.76	14.377	.285	140.40	39.000	.780
D corn & cowpeas	4.00	53.86	13.466	.291	122.50	30.625	.662
G-corn & cowpeas	17.7	259.88	14.683	.505	327.15	18.483	.636
H-timothy & clover	11.	72.55	6.596	8.436	103.20	9.382	12.000
I-1 oats & cowpeas	6.	84.42	14.070	.281	214.50	35.750	.715
I-2 cowpeas	2.5	73.92	18.480	24.640	60.00	24.000	10.000
I-3 soy beans	4.00	55.37	22.149	9.228	30.00	7.500	10.000
J corn & cowpeas	3.	30.62	10.208	-	-	-	-
L alfalfa	2.1	42.26	20.125	14.086	30.00	14.285	10.000

Totals 73.7 816.68
GAIN 239.99

1101.67

1101.67

1101.67

Average per acre of cultivated area	Income	Cost	Profit
	14.948	11.692	3.256
Average per acre of whole farm	10.695	8.366	2.329

Rates;- Man 15¢ Horse 10¢.

FARM NO. 1.

TABLE 4.

Year 1910.

SUMMARY : FIELD CROPS .

Crop	Acres	Profit			Loss		
		Total	Per Acre	Per Unit	Total	Per Acre	Per Unit
A-Clover	16.2	-	-	-	99.83	6.163	79.864
B-1 Rape	3.6	36.71	10.204	-	-	-	-
B-2 corn & cowpeas	3.6	88.64	24.623	.445	-	-	-
D corn & cowpeas	4.0	68.64	17.159	.371	-	-	-
G corn & cowpeas	17.7	67.27	3.800	.131	-	-	-
H timothy & clover	11.0	30.65	2.786	3.564	-	-	-
I-1 oats & cowpeas	6.0	130.08	21.680	.434	-	-	-
I-2 cowpeas	2.5	4.63	1.851	.772	-	-	-
I-2 soy beans	4.0	-	-	-	43.92	10.980	14.640
J corn & cowpeas	3.00	-	-	-	30.62	10.208	-
L alfalfa	2.10	-	-	-	12.26	5.840	4.086
Total		426.62			186.63		
				GAIN	239.99		
		426.62			426.62		

	Income	Cost	Profit
Average per acre of cultivated area	14.948	11.692	3.256
Average per acre of whole farm.	-	-	-

Rates:- Man 15¢ Horse 10¢.

FARM NO.1.

Table -5.

Year 1910. Crop:-Clover(for seed) 16.2Acres Field A.

Operation.	Dates	Total			Per Acre			Remarks.
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost	
Suptc.	4/1	3	-	.45	.18	-	.028	
Care of Seed	4/1	3	-	.45	.18	-	.028	
Discing	4/1	3	9	1.35	.18	.55	.083	
Harrowing	4/1	8½	34	4.68	.52	2.10	.289	World
Sowing	4/1-2	8½	-	1.27	.52	-	.078	Beater
Harrowing in	4/2	10	40	5.50	.62	2.47	.339	Harrow.
seed								2bu. for
Cutting for	8/10-22	13	26	4.55	.80	1.60	.281	seed
seed								
Raking	8/22-23	7	14	2.45	.43	.86	.151	
Stacking	10/17-26	56	64	14.80	3.46	3.95	.914	
Total Labor Cost		112	187	35.50	6.89	11.53	2.191	
Seed Cost(on 2yr.basis)				7.25			.448	2bu. @
Equipment				8.16			.504	\$7.25
Taxes				8.10			.500	
Interest				<u>58.32</u>			<u>3.60</u>	
Total cost				\$117.33			\$7.243	

Y I E L D S.

1¼ bu. Seed @ \$14.00 - \$17.50
Remainder lost.

S U M M A R Y .

	Total	Per Acre	Per Bushel.
Cost	\$117.33	\$7.243	\$93.864
Income	<u>17.50</u>	<u>1.080</u>	<u>14.000</u>
Loss	\$ 99.83	\$6.163	\$79.864

Rates:- Man 15¢ Horse 10¢

FARM NO.1.

Table , 6.

YEAR 1910.		Crop: RAPE.			3.6 Acres.			Field B 1.	
Operation	Dates	Total			Per Acre			Remarks.	
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost		
Harrowing	4/20	4 $\frac{1}{2}$	18	2.47	1.25	5.00	.686	World Beater Harrow	
Sowing	4/20	1 $\frac{1}{2}$	-	.24	.43	-	.066		
Harrowing in seed	4/20	2 $\frac{1}{2}$	5	.88	.69	1.39	.244	Spike tooth harrow	
Total Labor		8 $\frac{1}{2}$	23	3.59	2.37	6.39	.996		
Cost									
Seed Cost				.80			.216	20# @4¢ per lb	
Equipment				.56			.156		
Taxes				1.80			.500		
Interest				12.96			3.600		
Total Cost				19.71			5.468		

Y I E L D S .

Equivalent to 80.6 bushels of corn @ 70¢ per bushel-- \$56.42
S U M M A R Y .

	Total	Per acre
Cost	\$ 19.71	\$ 5.468
Income	56.42	15.672
GAIN	\$ 36.71	\$ 10.204

Figuring on the basis of one bushel of corn to ten pounds of pork, dry lot feeding; the rape saved 80.6 bushels of corn. A gain of 2200# pork was realized with a consumption of 7865# corn.

Rates:- Man 15¢ Horse 10.¢

FARM NO. 1.

Table - 7.

Year 1910. Crop: Corn & Cowpeas. 3.6 Acres Field B 2.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Care of								
Seed	4/3-26	11 $\frac{1}{4}$	1	1.79	3.12	.28	.497	
Plowing	6/17-18	22	49	8.19	6.11	13.61	2.275	
Harrowing	6/18-20	11	55	7.15	3.05	15.29	1.986	
Superin- tendence	6/18	1	-	.15	.28	-	.042	
Planting	6/20-21	8 $\frac{1}{2}$	17	2.97	2.36	4.72	.825	20# of cow-
Cultivating	7/4-7/25	31 $\frac{1}{2}$	63	11.03	8.75	17.50	3.064	peas and 9#
Total Labor Cost				31.28			8.689	of corn per a-
Seed Cost				4.70			1.305	cre cowpeas @
Equipment				1.02			.283	\$2.50 & freight
Taxes				1.80			.500	@ 20¢ per cwt.
Interest				12.96			3.600	corn @ \$2.25 Per
Total Cost				51.76			14.377	bushel.
								50 Bu. per A.

Y I E L D S .

180 bushels-----	50¢-----	\$90.00
3.6 Tons stover-----	\$4.00-----	14.40
3.6 Tons cowpeas-----	10.00-----	36.00
		<u>\$140.40</u>

S U M M A R Y .

	Total	Per Acre	Per Bushel
Cost	51.76	14.377	.285
Income	140.40	39.000	.730
GAIN \$	88.64	24.623	.445

RATES:- Man 15¢ Horse 10¢

FARM NO. 1.

Table - 8.

Year 1910.		Crop: Corn & Cowpeas.			4Acres.			Field D.
Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Care of seed	4/3-26	12 $\frac{1}{4}$	1	1.94	3.06	.25	.485	
Harrowing	4/28-	6	24	3.30	1.50	6.00	.825	
Planting corn	4/29	7	14	2.45	1.75	3.50	.612	Same as for B
Planting cowpeas	5/24-7/5	22	2	3.50	5.50	.50	.875	" " " "
Harrowing corn	5/27-7/7	14 $\frac{1}{2}$	16 $\frac{1}{2}$	3.83	3.62	4.12	.958	1-horse harrow
Flowing corn	6/14-30	16	32	5.60	4.00	8.00	1.400	also spike-tooth harrow.
Snapping corn	11/9-11	29 $\frac{1}{2}$	59	10.32	7.38	14.75	2.580	
Total Labor Cost		107 $\frac{1}{4}$	148 $\frac{1}{2}$	30.94	26.81	37.12	7.735	
Seed				4.77			1.194	1 $\frac{1}{2}$ Ton stover per Acre. $\frac{1}{4}$ T.
Equipment				1.75			.437	cowpeas per A.
Taxes				2.00			.500	
Interest				14.40			3.600	
Total Cost				53.86			13.466	

Y I E L D S .

185 bushels corn @ .50 - \$92.50
 7 $\frac{1}{2}$ Tons stover @ 4.00--- 30.00 (46 Bu. corn per acre)
 Total-----\$122.50

S U M M A R Y .

	Total	Per Acre	Per Bushel
Cost	53.86	13.466	.291
Income	122.50	30.625	.662
GAIN	68.64	17.159	.371

Rates:- Man 15¢ Horse 10¢

Table- 9.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Care of seed	4/3-26	57 $\frac{1}{4}$	8 $\frac{1}{2}$	9.44	3.24	.48	.534	
Hauling manure	4/4-4/6	21 $\frac{1}{2}$	43	7.53	1.21	2.43	.425	11 Loads.
Superintendence	4/21-5/30	7 $\frac{1}{4}$	-	1.08	.41	-	.061	
Discing sod	4/21-23	26 $\frac{1}{2}$	106	14.57	1.50	5.99	.823	Disc Harrow.
Plowing sod	4/26-5/14	68	189 $\frac{1}{2}$	29.15	3.84	10.71	1.647	
Harrowing sod	4/29-6/1	42	155 $\frac{1}{2}$	21.85	2.37	8.78	1.235	
Planting corn	6/1-15	21 $\frac{1}{2}$	7	3.93	1.21	.39	.222	Same rates & cost as for B2
Planting cowpeas	6/15-7/2	58 $\frac{1}{4}$	-	8.77	3.31	-	.495	
Plowing corn	6/20-7/23	136	268	47.20	7.68	15.14	2.667	
Thinning corn	7/18-	11	-	1.65	.62	-	.093	
Cutting weeds	8/1-2	10	-	1.50	.57	-	.085	
Gathering corn	11/14-22	17 $\frac{1}{2}$	35	6.13	.99	1.98	.346	Part of corn hogged off.
Total Labor Cost		477	812 $\frac{1}{2}$	152.80	26.95	45.90	8.633	
Seed				21.13			1.194	
Equipment				9.19			.519	
Taxes				8.85			.500	
Interest				63.72			3.600	
Manure charge 50% (11 loads @ \$1.39 per load plus labor cost)				4.19			.237	
Total Cost				\$259.88			\$14.683	

Corn	514.3 bushels @ 50¢	- \$257.15
Stover	35 tons @ \$2	- \$ 70.00
		<u>\$327.15</u>

	Total	Per Acre	Per Bushel
Cost	259.88	14.683	.505
Income	327.15	18.483	.636
	<hr/>	<hr/>	<hr/>
GAIN	67.27	3.800	.131

RATES:- Man 15¢ Horse 10¢

FARM NO. 1.

TABLE 10.

Year 1910. Crop:- Timothy & Clover. 11Acres. Field H.

Operation	Date Begun	Date Ended	Total			Per A.			Remarks
			Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost.	
Supt.	4/23	7/20	1½	-	..22	.13	-	.020	
Cutting	7/19	7/21	8	16	2.800	.73	1.45	.2555	
Raking	7/20	7/22	3	7½	1.20	.27	.68	.109	
Hauling	7/20	7/22	41½	35	9.73	3.77	3.18	.885	
Cutting Weeds	9/3	9/14	17	19	4.45	1.54	1.73	.405	
Total Labor Cost			71	77½	18.40	6.45	7.04	1.673	
Seed cost on 4 yr. basis									
6¢ clover, 10¢ timothy.									
Clover @ 16¢.									
Timothy @ 8¢.					4.84			.440	
Equipment					4.21			.383	
Taxes					5.50			.500	
Interest					39.60			3.600	
Total Cost					\$ 72.55			\$ 6.596	

FARM NO. 1.

TABLE 11.

YEAR 1910. Crop:- Oats & Cowpeas 6 Acres Field I.

Operation	Dates	Total			Per A.			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Care of seed	4/7-5/21	4 $\frac{1}{4}$	-	.64	.71	-	.107	
Planting & Suptc.	4/23-7/30	6 $\frac{1}{4}$	1 $\frac{1}{2}$	1.09	1.04	.25	.182	3bu. per A. @ 50¢
Plowing	5/21-26	30 $\frac{1}{2}$	91 $\frac{1}{2}$	13.72	5.08	15.25	2.286	
Cutting	7/9	7 $\frac{1}{4}$	21 $\frac{1}{4}$	3.26	1.21	3.63	.543	
Shocking	7/13-8/2	3	-	.45	.50	-	.075	
Thrashing	8/8	9	9	2.25	1.50	1.50	.375	
Hauling		7	10	2.05	1.17	1.66	.342	
Labor Cost for Oats		67 $\frac{1}{4}$	133 $\frac{1}{2}$	23.46	12.21	22.29	3.910	
Discing for cowpeas	7/14	6	24	3.30	1.00	4.00	.550	
Planting	7/28-29	16 $\frac{1}{2}$	29	5.38	2.75	4.83	.897	20¢ per A.
Cutting Weeds	9/16	2	4	.70	.33	.66	.116	@2.50 per bu.
Labor cost for field		91 $\frac{1}{4}$	190 $\frac{1}{2}$	32.84	15.29	31.79	5.473	
Seed				14.24			2.373	
Equipment				2.99			.499	
Taxes				3.00			.500	
Interest				21.60			3.600	
Thrashing				9.00			1.500	
Fuel				.75			.125	
Total Cost				\$84.42			\$14.070	

Y I E L D S .

300 bu. oats @ .50	-----	\$150.00	
7 $\frac{1}{2}$ T. straw @4.00	-----	30.00	
3 T. green manure			N.P.&K. @ 15-8-6¢
plowed under @ \$11.50	-----	34.50	per lb. resp. Amts.
Total		\$214.50	per T. 50-7-60 lbs. resp.

S U M M A R Y .

	Total	Per Acre	Per Bushel.
Cost	84.42	14.070	.281
Income	214.50	35.750	.715
GAIN\$	130.08	\$21.680	\$.434

Rates:- Man 15¢ Horse 10¢.

FARM NO. 1.

TABLE 12.

YEAR 1910. Crop:- Soy beans 4 Acres Field 1-2.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost
Care of seed							
	4/7-5/21	1	$\frac{1}{2}$	.21	.25	.12	.050
Supt.	4/23-7/12	3 $\frac{1}{4}$	1	.59	.81	.25	.147
Discing	6/17-21	2 $\frac{1}{4}$	9	1.24	.56	2.25	.310
Harrowing	6/17-21	5 $\frac{1}{4}$	21	2.89	1.31	5.25	.723
							Disc harrow Spike-tooth harrow.
Planting	6/17-22	6 $\frac{1}{2}$	13	2.27	1.63	3.25	.567
Cultivating	7/5-26	36 $\frac{1}{2}$	73	12.77	9.12	18.25	3.193
Harrowing	7/6	4	4	1.00	1.00	1.00	.250
Cutting Weeds	7/27-8/10	13 $\frac{1}{2}$	—	2.03	3.38	—	.507
Cutting Soy beans	10/5-6	16	28	5.20	4.00	7.00	1.300
Raking	10/7	2	4	.70	.50	1.00	.175
Stacking	10/7-12	88	93	22.50	22.00	23.25	5.625
Total Labor Cost		178 $\frac{1}{4}$	246 $\frac{1}{2}$	51.39	44.56	61.62	12.847
Seed				3.49			.873
							Seed @ \$2.50 & freight.
Equipment				2.64			.659
Taxes				2.00			.500
Interest				14.40			3.600
TOTAL COST				\$73.92			\$18.480

Y I E L D S .

3 Tons Hay @ \$10.00 per Ton. -- \$30.00
6 Tons lost by flood.

S U M M A R Y .			
Cost	Total	Per Acre	Per Ton
	73.92	18.480	24.640
Income	30.00	7.500	10.000
Loss	\$43.92	\$10.980	\$14.640

Rates:- Man 15¢ Horse 10¢.

FARM NO. 1.

TABLE 13.

Year 1910. Crop:- Cowpeas. 2.5Acres. Field I-2.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost.	
Care of seed 4/7		$\frac{3}{4}$	$\frac{1}{4}$	.13	.30	.10	.054	
Suptc. 4/23-7/12		$3\frac{1}{2}$	1	.62	1.40	.40	.248	
Plowing 6/16		$7\frac{1}{2}$	15	2.63	3.00	6.00	1.050	
Harrowing 6/16-21		$5\frac{1}{4}$	21	2.89	2.10	8.40	1.156	
Discing 6/17- 21		$2\frac{1}{4}$	9	1.24	.90	3.60	.496	
Planting 6/22		4	8	1.40	1.60	3.20	.560	
Cutting Weeds 7/27-8/10		$13\frac{1}{2}$	-	2.02	5.40	-	.812	
Cutting Peas 9/28-30		$17\frac{1}{2}$	35	6.12	7.00	14.00	2.450	
Turning Peas 9/28-30		$12\frac{1}{2}$	-	1.87	5.00	-	.750	
Stacking 9/22-10/6		$94\frac{1}{4}$	$85\frac{1}{2}$	22.69	37.70	34.20	9.076	
Total Labor Cost		161	174 $\frac{1}{2}$	41.63	64.40	69.90	16.652	
Seed Cost				2.18			.873	
Equipment				1.31			.524	
Taxes				1.25			.500	
Interest				9.00			3.600	
Total Cost				\$55.37			\$22.149	

Y I E L D S .

6 TONS cowpea hay @ \$10.00-----\$60.00
6TONS lost by floods.

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost-----	55.37	22.149	9.228
Income-----	60.00	24.000	10.000
GAIN	\$4.63	\$1.851	\$.772

Rates:- Man 15¢ Horse 10¢.

FARM NO. 1.

TABLE 14.

Year 1910. Crop:- Corn & Cowpeas 3Acres Field J.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Care of seed	4/7-5/21	9½	¾	1.50	3.17	.25	.500	
Supt.	5/27	1	-	.15	.33	-	.050	
Plowing	5/14-20	16½	49½	7.42	5.50	16.50	2.473	
Harrowing	5/26	6	18	2.70	2.00	6.00	.900	
Planting	5/26	7	14	2.45	2.33	4.66	.817	
Total Labor Cost		40	82¼	14.22	13.33	27.41	4.740	
Seed				3.58			1.194	
Equipment				.52			.174	
Taxes				1.50			.500	
Interest				10.80			3.600	
Total Cost				\$30.62			\$10.208	

Y I E L D S .

Field a total loss; crop destroyed by flood.

S U M M A R Y .

	Total	Per Acre	Per Bushel.
Cost	30.62	10.208	-
Income	-	-	-
LOSS	\$30.62	\$10.208	
Rates:- Man 15¢ Horse 10¢.			

FARM NO. 1.

TABLE 15.

Year 1910. Crop:- Alfalfa, 1st. year. 2.1 Acres. Field L.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Sowing in thin spots	4/2	1	-	.15	.48	-	.071	
Harrowing in seed	4/2	1	4	.55	.47	1.90	.262	
Mowing 1st cut	5/30	2½	5	.87	1.19	2.38	.414	
Hauling in	6/2	17½	21	4.73	8.33	10.00	2.252	5 loads.
Harrowing stubble	6/2-7/30	23¾	62¼	9.79	11.31	29.65	4.662	Spike-tooth harrow.
Mowing 2nd cut	7/27	3	6	1.05	1.43	2.86	.500	
Raking	7/29	3	4	.70	.95	1.90	.334	
Hauling off field	7/29	4	8	1.40	1.90	3.81	.666	
Suptc.	7/30	1	-	.15	.48	-	.071	
Mowing 3rd time	8/22	2½	5	.88	1.19	2.38	.419	
Raking	8/22	1	2	.35	.48	.95	.167	
Harrowing stubble	8/29	10½	31½	4.72	5.00	15.00	2.248	Spike-tooth harrow
Piling trash	8/29	10½	-	1.58	5.00	-	.753	
Hauling off	8/30	10	10	2.50	4.76	4.76	1.190	
Labor Cost		90¼	158¾	29.42	42.97	75.59	14.009	
Seed Cost				1.89			.900	20# per A. @ 18¢ lb. on
Equipment				2.34			1.116	4yr. basis.
Taxes				1.05			.500	
Interest				7.56			3.600	
Total Cost				\$42.26			\$20.125	

Y I E L D S .
3Tons @ \$10.00 per Ton-----\$30.00

S U M M A R Y .			
	Total	Per Acre	Per Ton
Cost	42.26	20.125	14.086
Income	30.00	14.285	10.000
LOSS	\$12.26	\$5.840	\$4.086

Rates:- Man 15¢ Horse 10¢.

FARM NO. 2.

Table- 1.

LABOR SUMMARY.							Year: 1910
Months	Workmen		Extra	Total	Av. per	Total	Work Horses.
	Brown	C. D. S.			wk. da. Regular.	Hours	Av. per wk.da.
March	268½	190	—	458½	10.3	377	2.8
April	301½	267½	58½	627	10.7	908	5.8
May	312¾	307¾	—	620½	11.4	665	4.2
June	303¾	245¾	68¾	618¾	10.7	860	5.5
July	325½	316¾	590	1232½	12.05	762½	4.
August	332½	285½	165	782½	11.05	386½	2.4
Sep.	312½	229¾	—	542	10.4	685	4.4
Oct.	304	299½	—	603½	11.05	380½	2.4
Nov.	282½	262½	—	544¾	10.2	273	1.7
Dec.	276½	282	—	558½	10.4	435	2.8
Jan.	214½	171½	—	385¾	7.4	8	.05
Feb.	281	— *	—	281	11.1	114½	.8
Total	3514½	2858	882½	7254½		5854½	

Rates — Man 15¢ Horse 10¢.

* Proprietor away from home

FARM NO. 2.

Table - 2.

SUMMARY -- LABOR COSTS.

YEAR 1910.

Account	Man Hours	Horse Hours	Costs
Horses & Mules	797 $\frac{3}{4}$	35	123.16
Cows	360 $\frac{1}{4}$	19 $\frac{1}{4}$	55.95
Hogs	278 $\frac{3}{4}$	44 $\frac{1}{2}$	46.26
Sheep	59 $\frac{3}{4}$	38 $\frac{1}{4}$	12.80
Household	165 $\frac{3}{4}$	230	47.87
Garden	31 $\frac{1}{2}$	8	5.52
Equipment	137 $\frac{1}{2}$	63 $\frac{1}{2}$	26.98
Improvements	2833 $\frac{3}{4}$	865 $\frac{3}{4}$	511.63
Gen. Farm	84 $\frac{1}{2}$	99 $\frac{3}{4}$	22.65
Proprietor	-	72 $\frac{1}{4}$	7.22
Outside Labor	213	290	60.95
Potatoes	84 $\frac{1}{4}$	74 $\frac{1}{2}$	20.09
Field A.	32 $\frac{1}{2}$	65	11.37
Field B. Oats & Clover	423 $\frac{3}{4}$	682 $\frac{1}{2}$	131.81
Field C. Timothy	238 $\frac{3}{4}$	388 $\frac{1}{2}$	74.66
Field D & E. Corn & Cowpeas	839	1706 $\frac{1}{4}$	296.47
Field E. ¹ Cowpeas	164	221	46.70
Field E. ² Soy Beans	23 $\frac{1}{2}$	29	6.42
Field F. ¹ Cowpeas	198 $\frac{1}{4}$	283 $\frac{1}{4}$	58.07
1911 Crops	288	638 $\frac{1}{4}$	107.04
Totals	7254 $\frac{1}{2}$	5854 $\frac{1}{2}$	\$1673.62

Rates - 15¢

10¢

FARM NO. 2.

Table - 3.

YEAR 1910. S U M M A R Y .- Field Crops.

C r o p	Acres.	Cost			Income		
		Total	Per Acre	Per Unit	Total	Per acre	Per Unit
B-Oats & clover	29.3	391.71	13.369	.417	409.	13.959	.435
C- Timothy	26.4	235.25	8.911	7.129	396.	15.000	12.000
D-Corn & Cowpeas	38.	566.32	14.902	.566	500.	13.158	.500
E-1 Cowpeas	9.	109.22	12.136	8.090	202.50	22.500	15.000
E-2 Soy beans	1.	13.41	13.414	6.707	20.00	20.000	10.000
F-1 Cowpeas	4.2	98.74	23.510	13.165	112.50	26.785	15.000
TOTAL		107.9	1414.65		1640.00		
GAIN		\$ 225.35					
		1640.00	1640.00				

Average per acre of Harvested crops	Income 15.199	Cost 13.111	Profit 2.088
Average per acre of Whole farm	10.025	8.841	1.184

RATES:- MAN 15¢ Horse 10¢.

FARM NO. 2

Table - 4.

YEAR 1910.

SUMMARY-- Field Crops.

C R O P	Acres	G A I N			L O S S		
		Total	Per A.	Per Unit	Total	Per A.	Per Unit
B -Oats & Clover	29.3	17.29	.590	.018	-	-	0
C -Timothy	26.4	160.75	6.089	4.871	-	-	-
D -Corn & Cowpeas	38.	-	-	-	66.32	1.744	.066
E-1 Cowpeas	9.	93.28	10.364	6.910	-	-	-
E-2 Soy beans	1.	6.59	6.586	3.295	-	-	-
F-1 Cowpeas	4.2	13.76	3.275	1.835	-	-	-
Totals	107.9	291.67			66.32		
				GAIN----	225.35		
		291.67			291.67		
Average per acre of Harvested crops		Income 15.199	Cost 13.111	Profit 2.088			
Average per acre on Whole Farm		10.025	8.841	1.184			
RATES:-	Man	15¢	Horse	10¢			

Table 5.

YIELDS.-		920bu.	Oats @ 35¢ -	\$329.00
		20 T.	Straw @ 4.00-	80.00 (estimated)
				<u>\$409.00</u>
SUMMARY.-	Total		Per Acre	Per Bushel
Cost	391.71		13.369	.417
Income	<u>409.00</u>		<u>13.959</u>	<u>.435</u>
Gain	<u>17.29</u>		<u>.590</u>	<u>.018</u>
RATES:- Man 15¢ Horse 10¢				

FARM NO. 2.

Table- 6.

YEAR 1910.		Crop: TIMOTHY.			26.4 acres.		Field C.	
Operation.	Dates.	Total			Per Acre			Remarks.
		Man	Horse	Total	Man	Horse	Cost	
		Hrs.	Hrs.		Hrs.	Hrs.		
Filling								
Washes	3/10-3/25	21½	23	5.53	.74	.79	.209	
Rolling								
Grass	3/21-3/23	23½	47	8.22	.81	1.61	.311	
Harvesting								
Hay	7/7-7/27	193¾	318½	60.91	6.65	10.95	2.308	
Labor Cost		<u>238¾</u>	<u>388½</u>	<u>74.66</u>	<u>8.20</u>	<u>13.35</u>	<u>2.828</u>	
Seed Cost				5.28			.200	
Equipment				10.11			.383	
Taxes				13.20			.500	
Interest				<u>132.00</u>			<u>5.000</u>	
Total Cost				\$ 235.25			8.911	

Y I E L D.

33 Tons Hay @ \$12.00 == \$396.00 (Estimated)

S U M M A R Y.

	<u>Total</u>	<u>Per Acre</u>	<u>Per Ton</u>
Cost	235.25	8.911	7.129
Income	<u>396.00</u>	<u>15.000</u>	<u>12.000</u>
GAIN	160.75	6.089	4.871

Rates: Man 15¢ Horse 10¢

FARM NO. 2.

Table - 7.

YEAR 1910.

Crop: Corn & Cowpeas.

38 Acres.

Field: D

Operation	Dates	Total			Per A.			Remarks.
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost	
Manuring	3/16-4/19	75	150½	26.31	1.97	3.97	.666	
Filling								
Washes	3/24	10¼	21½	3.76	.28	.57	.999	
Discing before								
Plowing	4/15-5/17	9¼	31	4.49	.24	.81	.118	
Plowing	4/20-6/2	194	573	86.40	5.11	15.08	2.273	
Discing after								
Plow	5/17-6/3	38½	145¼	20.29	1.01	3.82	.534	
Harrowing	5/25-6/3	23½	68½	10.37	.62	1.80	.273	
Planting	5/24-6/21	47½	81	15.23	1.25	2.13	.401	
Harrowing								
1st Cult.	6/6-6/15	73¼	146½	25.63	1.93	3.85	.675	
Plowing								
Corn	6/20-7/2	124¼	248½	43.49	3.27	6.55	1.143	
Harvesting	10/27-12/8	243	240½	60.50	6.40	6.33	1.592	
Total Labor Cost		839	1706¼	296.47	22.08	44.90	7.800	
Seed Cost				27.65			.728	6-1/3bu. corn @ \$2.85. 4bu. cowpeas @ \$2.40.
Equipment				16.68			.439	
Taxes				19.00			.500	
Interest				190.00			5.000	
Manure charge				16.52			.435	Manure charge 50% (42 loads @ \$1.39 plus labor cost of hauling- Labor charge above.
Total Cost				\$566.32			\$14.902	

Y I E L D S .

1000 bu. corn @ 50¢ - 500.00
26.3 bu. per Acre.

SUMMARY .

	Total	Per Acre	Per Unit.
Cost	566.32	14.902	.566
Income	500.00	13.158	.500
Loss	\$66.32	\$1.744	\$.066

Rates:- Man 15¢ Horse 10¢

FARM NO. 2.

Table - 8.

YEAR 1910.		Crop: Cowpeas.			9 Acres.		Field E 1.	
Operation	Dates	Totals			Per Acre			Remarks.
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost	
Dragging	6/10-14	9	29	4.25	1.00	3.22	.472	
Discing	6/13	3½	14	1.93	.39	1.55	.214	
Sowing	6/16-17	13	21	4.05	1.44	2.33	.450	
Cultivating	7/5-14	25	50	8.74	2.78	5.56	.971	
Mowing	10/11-13	9½	19	3.32	1.06	2.11	.369	
Raking	10/12-15	7½	15	2.63	.83	1.67	.292	
Shocking	10/12-15	17½	—	2.63	1.94	—	.292	
Stacking	10/12-20	79	73	19.15	8.78	8.11	2.128	
Total Labor Cost		164	221	46.70	18.22	24.55	5.188	
Seed				7.20			.800	2.40 per bu. 20¢ per A.
Equipment				5.82			.647	
Taxes				4.500			.500	
Interest				45.000			5.000	
Total Cost				109.22			12.136	

Y I E L D S .

13. 5 Tons Hay @ \$15.00 - \$202.50(estimated)

S U M M A R Y .

	Total	Per Acre	Per Unit.(Ton)
Cost	109.22	12.136	8.090
Income	202.50	22.500	15.000
GAIN \$	93.28	10.364	6.910

Rates:- Man 15¢ Horse 10¢

FARM NO. 2

Table - 9.

YEAR 1910.		Crop: Soy beans.			1 Acre. Field: E 2		
Operation	Dates	Total			Per Acre		
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost
Dragging	6/10-14	1½	3	.53	1½	3	.525
Sowing	6/16	3	3	.75	3	3	.750
Cultivating	7/5-7/14	3	6	1.05	3	6	1.050
Mowing	10/12	1½	3	.52	1½	3	.525
Raking	10/13	1½	3	.53	1½	3	.525
Shocking	10/13	2	-	.30	2	-	.300
Stacking	10/14	11	11	2.75	11	11	2.753
LABOR COST		23½	29	6.43	23½	29	6.428
Seed				.90			.900
Equipment				.58			.586
Taxes				.50			.500
Interest				5.00			5.000
Total Cost				\$13.41			\$13.414

Y I E L D .
2 Tons Hay @ \$10.00 - \$20.00.

S U M M A R Y .			
Cost	Total	Per Acre	Per Ton.
Income	13.41	13.414	6.707
GAIN	20.00	20.000	10.000
	6.59	6.586	3.293

Rates:- Man 15¢ Horse 10¢

FARM NO. 2.

Table - 10.

Year 1910		Crop: Cowpeas			4.2 Acres.			Field: F 1.	
Operation	Dates	Total			Per A.			Remarks.	
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost		
Manuring	3/14-26	34 $\frac{1}{4}$	48 $\frac{1}{2}$	9.99	8.15	11.55	2.378		
Plowing	4/22-27	27 $\frac{1}{4}$	77 $\frac{1}{4}$	11.87	6.49	18.51	2.826		
Discing	6/13	5 $\frac{1}{2}$	22	3.02	1.31	5.24	.719		
Dragging	6/14	4	16	2.20	.95	3.81	.524		
Brilling	6/17-20	10	40	5.50	2.38	9.52	1.310		
Cultivating	7/5	8 $\frac{1}{2}$	17	2.97	2.02	4.05	.707		
Pulling Weeds	7/27-8/4	45 $\frac{3}{4}$	-	6.87	10.89	-	1.636		
Mowing	10/5	4 $\frac{1}{2}$	9	1.58	1.07	2.14	.376		
Raking	10/6	2 $\frac{1}{2}$	5	.87	.59	1.19	.207		
Shocking	10/6	8	-	1.20	1.91	-	.286		
Stacking	10/7-19	48	48	12.00	11.43	11.43	2.857		
Total Labor Cost		198 $\frac{1}{4}$	283 $\frac{1}{4}$	58.07	47.19	67.44	13.826		
Seed				3.36			.800		20# per A @ \$2.40 per bu
Equipment				3.00			.715		
Taxes				2.10			.500		
Interest				21.00			5.000		
Manure Charge				11.21			2.669		Manure charge
Total Cost				\$ 98.74			\$ 23.510		50% (23 loads @ \$1.39 plus labor cost) Labor charge Above.

Y I E L D S .
 7 $\frac{1}{2}$ Tons Hay @ \$ 15.00 - \$112.50 (Estimated)

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	98.74	23.510	13.165
Income	112.50	26.785	15.000
GAIN	\$13.76	\$ 3.275	\$1.835

RATES:- Man 15¢ Horse 10¢

FARM NO. 3.

TABLE 1.

3/8-12/31/1910.

LABOR SUMMARY.

MONTHS	Workmen				Work Horses.		
	No.1.	C.M.L.	Extra	Total	Av. per Wk. day regular	Total	Av. per reg. horse per wk. day.
Mar.	268 $\frac{3}{4}$	254 $\frac{1}{4}$	11	533 $\frac{3}{4}$	11.8	549	5.2
April	345 $\frac{1}{4}$	323 $\frac{1}{4}$	26	694 $\frac{1}{2}$	12.0	544 $\frac{1}{2}$	3.4
May	373 $\frac{1}{4}$	336 $\frac{3}{4}$	143 $\frac{1}{4}$	853 $\frac{1}{4}$	12.9	923	5.9
June	381 $\frac{1}{2}$	341 $\frac{1}{2}$	70 $\frac{1}{4}$	793 $\frac{1}{4}$	12.8	829 $\frac{3}{4}$	5.1
July	372 $\frac{1}{2}$	363 $\frac{3}{4}$	120 $\frac{1}{4}$	856 $\frac{1}{2}$	12.8	788 $\frac{1}{2}$	6.8
August	377 $\frac{1}{4}$	339	7 $\frac{1}{2}$	723 $\frac{3}{4}$	12.4	507	4.1
Sept.	349 $\frac{1}{2}$	117 $\frac{1}{4}$	70 $\frac{1}{4}$	537	*12.5	248 $\frac{1}{2}$	3.0
Oct.	344 $\frac{1}{2}$	12 $\frac{1}{4}$	-	356 $\frac{3}{4}$	*12.4	186 $\frac{1}{4}$	1.9
Nov.	336 $\frac{1}{2}$	13 $\frac{1}{4}$	-	349 $\frac{3}{4}$	*12.5	242 $\frac{1}{4}$	2.3
Dec.	354 $\frac{1}{4}$	112 $\frac{1}{4}$	2	468 $\frac{1}{2}$	*12.4	173 $\frac{1}{4}$	1.6
Totals	3503 $\frac{1}{4}$	2213 $\frac{1}{2}$	450 $\frac{1}{4}$	6167		4992	

Rates:- Man 15¢ Horse 10¢.

* Av. per Wk. day of hired help only shown here as Proprietor was away on Institute work practically all the time.

FARM NO. 3.

TABLE 2.

Year 1910.

SUMMARY LABOR COSTS.

Account	Man Hours	Horse Hours	Cost
Horses	478 $\frac{1}{2}$	18	73.58
Cows	1563 $\frac{1}{2}$	597 $\frac{1}{2}$	294.20
Milk	864 $\frac{3}{4}$	593 $\frac{1}{4}$	189.09
Hogs	136 $\frac{1}{2}$	32 $\frac{1}{2}$	23.72
Poultry	1	-	.15
House Hold	183 $\frac{1}{2}$	93 $\frac{1}{2}$	36.88
Equipment	171 $\frac{1}{2}$	87 $\frac{1}{4}$	34.50
Improvements	787 $\frac{1}{4}$	259 $\frac{1}{2}$	144.11
Gen. Farm	68 $\frac{1}{2}$	48 $\frac{1}{4}$	15.15
Personal	5 $\frac{1}{4}$	128 $\frac{1}{4}$	13.69
Moving	148 $\frac{1}{2}$	225	44.77
Garden	125 $\frac{1}{4}$	57 $\frac{1}{2}$	24.61
Gen. Crops	1	-	.15
Outside	101	132 $\frac{1}{2}$	28.40
Field A Pasture	15 $\frac{1}{4}$	30 $\frac{1}{2}$	5.340
" B Corn	503 $\frac{1}{4}$	1095 $\frac{1}{4}$	185.07
" B Turnips	7 $\frac{1}{2}$	9	2.02
" C Corn	157 $\frac{1}{4}$	260 $\frac{3}{4}$	49.74
" D-1 Cane	240 $\frac{1}{4}$	403 $\frac{1}{2}$	76.39
" D-1 Millet	7 $\frac{1}{4}$	21 $\frac{1}{4}$	3.21
" D-2 Rape&Oats	25 $\frac{1}{2}$	58 $\frac{1}{4}$	9.65
" D-3 Oats	203 $\frac{1}{4}$	394 $\frac{1}{4}$	69.99
" E Breeding Plot	25 $\frac{3}{4}$	50 $\frac{1}{2}$	8.91
" E-1 Beans	163	107 $\frac{1}{4}$	35.22
" E-2 Clover Pasture	7 $\frac{3}{4}$	14	2.56
" E-2 Soy Beans	15 $\frac{1}{2}$	35	5.83
" E-4 Clover	96 $\frac{1}{2}$	104 $\frac{1}{2}$	24.92
" F Pasture	10	18	3.30
" G Corn	28 $\frac{1}{2}$	70 $\frac{1}{2}$	11.33
" G Turnips	3 $\frac{1}{4}$	6 $\frac{1}{4}$	1.21
1911 Crops	18 $\frac{1}{4}$	37 $\frac{1}{2}$	6.56
TOTALS	6167	4992	1424.25
RATES:-	Man	Horse-	
	15¢	10¢.	

FARM NO. 3. .

Table 3.

Year 1910.

Field Crop Summary.

Field	Acres	Cost			Income		
		Total	Per Acre	Per Unit	Total	Per A.	Per Unit
B-Corn	24	272.52	11.357	.568	234.00	9.750	.487
C- "	8	78.15	9.769	.651	60.00	7.500	.500
D-1 Sorghum	8	104.83	13.104	4.368	168.00	21.000	7.000
D-2 Rape&Oats	8	40.45	5.056	-	10.00	1.250	-
D-3 Oats	24	191.50	7.979	.596	131.61	5.483	.410
E Breeding Plot	1	12.19	12.195	-	-	-	-
E-4 Clover	11	75.15	6.832	12.525	60.00	5.454	10.000
G Corn	1	14.92	14.929	1.493	5.00	5.000	.500
E-1 Beans	2	43.41	21.707	.058	75.00	37.500	.100
E-2 Soy Beans	1	9.86	9.863	6.573	13.50	13.500	9.000
Total	88	842.98			757.11		
				LOSS	85.87		
		842.98			842.98		
Av. per Acre of Cultivated Area		Income	Cost		Loss		
		8.604	9.581		.977		
Av. per Acre of Whole Farm		4.732	5.268		.536		
RATES:- Man 15¢ Horse 10¢.							

FARM NO. 3.

TABLE 4.

Year 1910.

FIELD CROP SUMMARY .

Field	Acres	Gain			Loss		
		Total	Per A.	Per Unit	Total	Per A.	Per Unit.
B-Corn	24	-	-	-	38.52	1.607	.081
C-Corn	8	-	-	-	18.15	2.269	.251
D-1Sorghum	8	63.17	7.896	2.632	-	-	-
D-2 Rape & Oats	8	-	-	-	30.45	3.806	-
D-3	24	-	-	-	59.89	2.496	.186
E Breeding Plot	1	-	-	-	12.19	12.195	-
E-4Clover	11	-	-	-	15.15	1.378	2.525
G Corn	1	-	-	-	9.92	9.929	.993
E Beans	2	31.59	15.793	.042	-	-	-
E-2 Soy Beans	1	3.64	3.637	2.427	-	-	-
		98.40			184.27		
LOSS		85.87					
		184.27			184.27		
	Income		Cost			Loss	
Av. per A. of Culti- vated Area	8.604		9.581			.977	
Av. per A. on Whole Farm	4.732		5.268			.536	
	Rates:- Man 15¢ Horse 10¢.						

FARM NO. 3.

TABLE 5.

Year 1910.

Crop: Corn

24 Acres

Field B.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Discing be- fore plow 4/11-22	31 $\frac{3}{4}$	114 $\frac{1}{4}$	16.18	1.32	4.76	.673		Double disc- ing. Economy
Care of Seed 4/22-25	11	4	2.05	.46	.17	.085		Double lever.
Plowing 4/25-5/21	96 $\frac{3}{4}$	311 $\frac{1}{4}$	45.64	4.04	12.96	1.902		16 $\frac{1}{2}$ in. walking plow 5 $\frac{1}{2}$ in. deep
Discing after plow 5/18-28	28 $\frac{1}{2}$	85 $\frac{1}{2}$	12.83	1.19	3.56	.534		Economy Double Lever.
Harrowing sod 4/30-5/14	20 $\frac{1}{4}$	61 $\frac{1}{2}$	9.19	.84	2.56	.383		50 tooth lever Harrow.
Manuring 5/16-6/1	4 $\frac{3}{4}$	7 $\frac{1}{2}$	1.46	.20	.31	.061		2 loads poultry manure.
Dragging 5/18-30	20	48	7.80	.83	2.00	.325		Split Log Drag.
Suptc. 5/19-21	$\frac{3}{4}$	-	.11	.03	-	.004		
Planting 5/30-6/2	28 $\frac{1}{2}$	57	9.98	1.19	2.38	.416		Checked Avery.
Harrowing after Planter 5/30-6/2	29 $\frac{1}{2}$	59	10.33	1.23	2.46	.431		50 tooth Lever Harrow.
Harrowing corn 6/14-7/4	27 $\frac{1}{2}$	65 $\frac{1}{4}$	10.65	1.15	2.72	.444		(same as above)
Cultivating 1st.								Zanesville Disc
6/7-7/1	42 $\frac{3}{4}$	85 $\frac{1}{2}$	14.96	1.78	3.56	.623		Cult. & Sattley
Cultivating 2nd								Walking Cult.
7/14-23	39 $\frac{3}{4}$	70 $\frac{3}{4}$	13.04	1.66	2.95	.543		(same as above)
Cultivating 3rd.								Ida. as above rest
8/1-30	20 $\frac{1}{4}$	25 $\frac{1}{4}$	5.56	.84	1.05	.232		(with garden plow)
Hoeing 8/1	5	-	.75	.21	-	.031		1 horse.
Thinning 8/9-20	20 $\frac{3}{4}$	-	3.11	.86	-	.129		
Cutting 10/4-13	18	8	3.50	.75	.33	.146		Cut by hand
Gathering 10/11- 11-26	25 $\frac{1}{2}$	41	7.92	1.06	1.71	.330		
Hauling Fodder 10/11-11/5	13 $\frac{3}{4}$	27 $\frac{1}{2}$	4.81	.57	1.15	.204		
Shocking 11/5-12/10	6	-	.90	.25	-	.037		
Hauling Corn 12/13-30	12 $\frac{1}{4}$	24 $\frac{1}{2}$	4.29	.51	1.02	.178		
Total Labor Cost	503 $\frac{3}{4}$	1095 $\frac{3}{4}$	185.06	20.97	45.65	7.711		
Seed Cost			2.10			.087		3 $\frac{1}{2}$ bu @ 60¢.
Equipment			12.00			.500		
Rent			72.00			3.000		\$3. per A. paid.
Manure			1.41			.059		50% (2 loads @ \$2
Total Cost			272.57			11.357		plus labor cost) -labor charge above.

Y I E L D S .

480 bu. corn @ 45¢-----216.00

24 Acres stock @ 75¢-----18.00

234.00

S U M M A R Y .

	Total	Per A.	Per Bu.
Cost	272.52	11.357	.568
Income	234.00	9.750	.487
LOSS	\$38.52	\$1.607	\$.081

Rates: Man 15¢-
Horse 10¢.

FARM NO. 3.

TABLE 6.

Year 1910. Crop:- Corn. 8 Acres Field C-1.

Operation	Dates	Total			Per Acre			Remarks
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Discing for	4/1-5/27	11	31½	4.80	1.37	3.94	.600	Economy Double Lever.
Plowing for	5/25-6/3	40¼	84¾	14.51	5.04	10.60	1.814	5In. deep with 12 in. plow.
Dragging for	6/3	6¾	18¾	2.89	.85	2.34	.362	Log Drag.
Care of seed	4/22-6/25	4	1	.70	.50	.12	.087	
Planting	6/7-6/20	10¼	19½	3.49	1.28	2.44	.436	Deere 2-rowed drill.
Harrowing after Planter	6/7-6/17	9½	21½	3.57	1.19	2.69	.447	50-tooth lever harrow.
1st Cultivation	6/22-7/6	23½	36¼	7.15	2.94	4.53	.894	Disc Cultivator & 1 horse Deerevator.
2nd. Cultivation	7/26-30	11¼	22½	3.94	1.41	2.81	.492	Sattley Cultivator.
3rd. Cultivation	8/27-29	11	17	3.35	1.37	2.12	.419	Sattley Cultivator & Deerevator.
Hoeing	8/3-8	13½	-	2.03	1.68	-	.253	
Thinning	7/15-8/20	12¾	-	1.91	1.59	-	.239	
Hauling	12/13-30	4	8	1.40	.50	1.00	.175	
Total Labor Cost		157¾	260¾	49.74	19.72	32.59	6.218	
Seed				.90			.112	1½ bu. @ 60¢.
Equipment				3.51			.439	
Rent				24.00			3.000	
Total Cost				78.15			9.769	

Y I E L D S .

120 Bu. Corn @ 45¢ ----- \$54.00
 8 Acres Stocks @ 75¢ ----- \$ 6.00
 ----- \$60.00

S U M M A R Y .

	Total	Per Acre	Per Bu.
Cost	78.15	9.769	.651
Income	60.00	7.500	.500
LOSS	\$18.15	\$2.269	\$.151

Rates:- Man 15¢ Horse 10¢.

FARM NO. 3.

TABLE 7.

Year 1910.

Crop:- Sorghum

8 Acres

Field D - 1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Dragging stalks	3/21-22	21 $\frac{1}{2}$	5	.87	.31	.62	.109	Harrow.
Discing	3/31-4/1	11 $\frac{1}{2}$	34 $\frac{1}{2}$	5.18	1.44	4.31	.648	Economy dou-
Care of seed	5/30	$\frac{1}{2}$	-	.07	.06	-	.009	ble lever.
Plowing for	6/17-27	38 $\frac{1}{2}$	110 $\frac{1}{2}$	16.82	4.81	13.80	2.103	16" walking plow.
Planting	6/14-25	13 $\frac{1}{2}$	27	4.73	1.69	3.38	.591	
Harrowing after planter	6/18-29	6 $\frac{1}{4}$	18 $\frac{1}{4}$	2.81	.78	2.34	.351	
Harrowing cane(1st.)	7/6	3 $\frac{1}{2}$	7	1.22	.44	.87	.153	
Plowing	7/21-22	13	26	4.55	1.63	3.25	.569	
Harrowing(2nd)	7/25	5 $\frac{1}{2}$	11	1.93	.69	1.37	.241	
Cutting	9/26-11/8	44 $\frac{1}{2}$	51	11.77	5.56	6.37	1.472	
After twine	10/4-27	4 $\frac{1}{4}$	3 $\frac{3}{4}$	1.01	.53	.47	.126	
Hauling	10/8-11/30	51 $\frac{1}{4}$	101 $\frac{1}{2}$	17.84	6.41	12.69	2.230	
Stripping	10/15-25	19	-	2.85	2.37	-	.356	
Shocking	10/29-11/2	22 $\frac{3}{4}$	-	3.41	2.84	-	.426	
Hauling	12/7-24	3 $\frac{1}{4}$	7 $\frac{1}{2}$	1.31	.47	.93	.164	
Labor Cost		240 $\frac{1}{4}$	403 $\frac{1}{2}$	76.39	30.03	50.40	9.548	
Seed				.93			.116	7# per A. @
Equipment				3.51			.439	\$1.00 per Bu.
Rent				24.00			3.000	
Total Cost				104.83			13.104	

Y I E L D S .

3Tons Per Acre @ \$7.00 -- -- \$168.00

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	104.83	13.104	4.368
Income	168.00	21.000	7.000
GAIN	\$63.17	\$7.896	\$2.632

Rates:- Man 15¢ Horse 10¢.

FARM NO. 3.

TABLE 8.

Year 1910. Crop: Rape & Oats. 8 Acres Field D-2

Operation	Dates	Total			Per Acre			Remarks.
		Man Hrs.	Horse Hrs.	Cost	Man Hrs.	Horse Hrs.	Cost	
Dragging Stalks	3/21-22	2½	5	.87	.31	.62	.109	Steel Harrow 50 Tooth
Disking	3/30-4/2	13½	40½	6.08	1.69	5.06	.760	Economy Double lever.
Sowing	4/2	5¼	-	.79	.66	-	.099	
Covering	4/2	4¼	12¾	1.91	.53	1.59	.238	Disk.
Total Labor Cost		25½	58¼	9.65	3.19	7.28	1.206	
Seed				6.20			.775	3 pks.oats @ 50¢ & 4# rape
Equipment				.60			.075	@ 10¢.
Rent				24.00			3.000	
Total Cost				40.45			5.056	

Y I E L D S .
Pasture Value - \$10.00 (estimated).

S U M M A R Y .

	Total	Per Acre.
Cost	\$40.45	\$5.056
InCome	10.00	1.250
Loss	\$30.45	\$3.806

Rates:- Man 15¢ Horse 10¢.

FARM NO. 3.

Table 9.

Year 1910. Crop:- Oats. 24 Acres Field D-3.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Dragging Stalks	3/21	2½	5	.87	.10	.20	.036	Harrow.
Care of seed	3/22-26	6	10½	1.93	.25	.43	.080	
Discing for	3/22-29	43½	126½	19.20	1.81	5.28	.800	Economy 12
Suptc.	3/24	½	-	.07	.02	-	.003	disc.
Sowing	3/26-28	9	18	3.15	.37	.75	.131	Endgate seed- er
Covering	3/26-29	16½	48½	7.31	.68	2.03	.305	Spike-tooth
Cutting	7/7-7/12	24½	67½	10.43	1.02	2.82	.435	harrow. 2 Fastened together.
Shocking	7/8-18	32½	-	4.87	1.35	-	.203	
Thrashing	7/26-27	25½	42	8.06	1.07	1.75	.336	
Hauling oats	8/6-13	30½	50	9.54	1.26	2.08	.397	
Hauling straw	8/26-11/7-13---	-	26	4.55	.54	1.08	.190	
Total Labor Cost		203½	394½	69.98	8.49	16.42	2.916	
Seed				21.50			.896	
Thrashing				19.26			.8025	
Equipment				8.76			.365	
Rent				72.00			3.000	
Total Cost				191.50			7.979	

Y I E L D S .

321 bu. oats @ 35¢ - - - \$112.35
 Straw - - - - - 19.26

S U M M A R Y .

	Total	Per Acre	Per Bushel
Cost	191.50	7.979	.596
Income	131.61	5.483	.410
LOSS \$	59.89	\$2.496	\$.186

Rates:- Man 15¢ Horse 10¢.

FARM NO. 3.

TABLE 10.

Year 1910. Crop: Corn Breeding Plot. 1 Acre Field E.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing for 4/20-30	11	39	5.55	11	39	5.550		
Rolling 4/21	1	2	.35	1	2	.350		
Care of seed 4/22	1	-	.15	1	-	.150		
Harrowing 5/25	1½	3	.52	1.5	3	.525		
Planting 5/25-26	5¾	2	1.06	5.75	2	1.062		
1st. Cultivation 6/22	2½	2½	.63	2.5	2.5	.625		
2nd. Cultivation 7/1	1	2	.35	1.	2.	.350		Disc Cultivator.
Hoeing 7/30	2	-	.30	2.	-	.300		
Total Labor	25¾	50½	8.91	24.75	50.5	8.912		
Seed			-			-		Seed furnished by Mo. Exp. Sta.
Equipment			.283			.283		
Rent			3.000			3.000		
Total Cost			12.190			12.195		

Y I E L D S .
All Lost.

S U M M A R Y .

	Total	Per Acre
Cost	12.19	12.195
Income	-	-

LOSS \$12.19 \$ 12.195

Rates: Man 15¢ Horse 10¢.

TABLE 11.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	
1st. Crop.							
Cutting	7/4-6	5½	11	1.92	.50	1.00	.175 Osborn 5ft.cut.
Raking	7/5-6	3	6	1.05	.27	.54	.096 Sulky.
Shocking	7/6-14	13½	-	2.03	1.23	-	.184
Scattering	7/11-12	3¼	-	.56	.34	-	.051
Stacking	7/9-20	23	14½	4.90	2.09	1.32	.445
Hauling	12/6-31	14	22	4.30	1.27	2.00	.391
Total 1st. Crop		<u>63¼</u>	<u>53½</u>	<u>14.76</u>	<u>5.70</u>	<u>4.86</u>	<u>1.342</u>
2nd. Crop							
Cutting	8/30-9/1	13	26	4.55	1.18	2.36	.414
Raking	9/2-9	6	6	1.50	.55	.55	.136
Hauling	9/12-10/30	14½	19	4.11	1.34	1.73	.374
Total 2nd Crop		<u>33½</u>	<u>51</u>	<u>10.16</u>	<u>3.07</u>	<u>4.64</u>	<u>.924</u>
Grand Total Labor							
Cost		96½	104½	24.92	8.77	9.50	2.266
Seed (on 2yr. basis)				8.80			.800 8#per A. @ 20¢
Equipment				8.43			.766
Rent				33.00			3.000
Total Cost				<u>\$75.15</u>			<u>\$6.832</u>
Y I E L D S .							
1st Crop				6 Tons @ \$10	-	-	\$60.00
2nd Crop				---	---	---	---
							<u>\$60.00</u>
S U M M A R Y .							
Cost	Total			Per Acre		Per Ton	
	75.15			6.832		12.525	
Income	60.00			<u>5.454</u>		<u>10.000</u>	
LOSS	<u>\$15.15</u>			<u>\$1.378</u>		<u>\$2.525</u>	
Rates:- Man 15¢ Horse 10¢.							

Farm No. 3.

TABLE 12.

Year 1911 O. Crop: Corn 1 Acre Field G.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Care of Seed		$\frac{1}{2}$	-	.07	-	-	.075	
Plowing for 6/14-16	11 $\frac{3}{4}$	35 $\frac{1}{4}$		5.28	11.75	35.25	5.287	16 In. Walking Plow.
Harrowing for 6/16	-17	2 $\frac{3}{4}$	8 $\frac{1}{4}$	1.24	2.75	8.25	1.247	50 Tooth Lever Harrow.
Planting 6/18		2 $\frac{1}{2}$	5	.87	2.50	5.00	.875	Black Hawk.
Cultivating 1st. 7/7	5	10		1.75	5	10.00	1.750	Deere vator.
" 2nd. 7/22-23	6	12		2.10	6	12.00	2.100	Sattley Cultivator.
Total Labor Cost	28 $\frac{1}{2}$	70 $\frac{1}{2}$		11.33	28.00	70.50	11.334	
Seed				.312			.312	1 Eighth Bu. @ \$2.50
Equipment				.283			.283	
Rent				3.000			3.000	
Total Cost				14.920			14.929	

YIELDS.

Corn 10 Bu. @ 50¢ ----- \$5.00

S U M M A R Y .

	Total	Per Acre	Per Bu.
Cost	14.92	14.929	1.493
Income	5.00	5.000	.500
LOSS	\$9.92	\$9.929	\$.993

RATES:- Man 15¢ Horse 10¢.

FARM NO. 3.

TABLE 13.

Year 1910. Crop:- Beans. 2 Acres Field E-1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing for 6/9-7/8	16	47		7.14	8.12	23.50	3.570	
Harrowing 6/29-7/8	6 $\frac{3}{4}$	17 $\frac{1}{2}$		2.76	3.37	8.75	1.380	
Planting 7/8	2 $\frac{1}{4}$	4 $\frac{1}{2}$		.79	1.12	2.25	.395	Black Hawk Planter.
Cultivating 1st. 7/23	4 $\frac{3}{4}$	4 $\frac{3}{4}$		1.18	2.37	2.38	.592	5 hoe garden plow.
Cultivating 2nd. 8/16	3	6		1.05	1.50	3.00	.525	Sattley walk- ing cult.
Picking & cleaning 8/24-10/7	99 $\frac{1}{4}$	-		14.89	49.62	-	7.445	
Mktg. 8/24-10/7	30 $\frac{3}{4}$	28		7.48	15.38	14.00	3.705	
Total Labor	163	107 $\frac{3}{4}$		35.22	78.62	45.25	17.612	
Seed				2.62			1.312	$\frac{3}{4}$ pk. per A. @ \$7.00 per Bu.
Equipment				.57			.283	
Rent				6.00			3.000	
Total Cost				43.41			21.707	

Y I E L D S .

750 Gal. Beans @ \$.10 ----- \$75.00

S U M M A R Y .

	Total	Per Acre	Per Gal.
Cost	43.41	21.707	.058
Income	75.00	37.500	.100
GAIN	\$31.59	\$15.793	\$.042

Rates:- Man 15¢ Horse 10¢,

FARM NO. 3.

TABLE 14.

Year 1910. Crop: Soy Beans 1 Acre Field(2) E.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing for 6/28- 7/12		9½	21½	3.56	9.25	21.75	3.565	16In. Walking Plow.
Harrowing for 6/28 -7/12		2½	5½	.87	2.25	5.25	.865	50tooth Lever Harrow.
Planting 7/12		1½	3	.52	1.50	3.00	.525	Deere, Double rowed.
Cultivating 8/26		2½	5	.88	2.50	5.00	.875	
Labor Cost		15½	35	5.83	15.50	35.00	5.830	
Seed				.750			.750	20½ @ \$2.25 per Bu.
Equipment				.283			.283	
Rent				3.000			3.000	
Total Cost				9.86			9.863	

Y I E L D S .

1½ Tons @ \$9.00 ----- \$13.50 (Estimated).

SUMMARY.

	Total	Per Acre	Per Ton
Cost	9.86	9.863	6.573
Income	13.50	13.500	9.000
GAIN \$	3.64	\$3.637	\$2.427

Rates:- Man 15¢ Horse 10¢.

FARM NO.4.

Table 1.

2/22/1911-2/21/1912.

LABOR-SUMMARY.

Months	Workmen							Work Horses.		
	No.1.	No.2	No.3	No.4	No.5	Prop.	Extra	Grand Total	Av.per Total wk.da. per reg. workman	Av.per Total Hours wk.da. per horse.
1911										
Feb.	83 $\frac{3}{4}$	81	-	-	74 $\frac{3}{4}$	54 $\frac{1}{2}$	-	294	11.17	46 $\frac{1}{4}$ 2.6
Mar.	333 $\frac{3}{4}$	368	31 $\frac{3}{4}$	-	359 $\frac{1}{2}$	275	210	1578	9.5	680 $\frac{1}{4}$ 3.5
Apr.	302 $\frac{1}{4}$	299 $\frac{1}{4}$	159	-	263	229	20	1272 $\frac{1}{2}$	9.2	830 $\frac{3}{4}$ 4.7
May	350	357	150 $\frac{3}{4}$	-	349 $\frac{3}{4}$	293 $\frac{1}{2}$	95	1596	10.5	1513 $\frac{1}{2}$ 6.2
June	335 $\frac{1}{4}$	339	315 $\frac{3}{4}$	-	343	312 $\frac{1}{2}$	68	1713 $\frac{1}{2}$	12.7	1430 7.6
July	322 $\frac{3}{4}$	311 $\frac{3}{4}$	298 $\frac{1}{4}$	-	308 $\frac{3}{4}$	264	179 $\frac{1}{4}$	1684 $\frac{3}{4}$	10.4	1021 $\frac{3}{4}$ 5.3
Aug.	296 $\frac{3}{4}$	306	286 $\frac{3}{4}$	244	305 $\frac{1}{2}$	127 $\frac{1}{2}$	202 $\frac{1}{2}$	1769 $\frac{1}{4}$	9.2	1233 6.5
Sept.	310	295 $\frac{1}{4}$	160	285 $\frac{1}{2}$	300	203 $\frac{1}{2}$	186 $\frac{1}{2}$	1740 $\frac{3}{4}$	9.4	990 $\frac{1}{2}$ 5.3
Oct.	316 $\frac{1}{4}$	309	107 $\frac{3}{4}$	296 $\frac{3}{4}$	327 $\frac{1}{2}$	245 $\frac{1}{4}$	-	1602 $\frac{1}{2}$	9.66	1066 5.7
Nov.	287 $\frac{1}{2}$	287 $\frac{1}{2}$	132 $\frac{1}{4}$	301 $\frac{3}{4}$	287 $\frac{1}{2}$	175 $\frac{3}{4}$	-	1472 $\frac{1}{4}$	8.9	688 3.7
Dec.	279 $\frac{1}{4}$	296 $\frac{1}{4}$	165 $\frac{1}{4}$	279 $\frac{1}{4}$	277 $\frac{1}{2}$	172 $\frac{1}{2}$	16 $\frac{3}{4}$	1486 $\frac{3}{4}$	8.67	593 3.0
1912.										
Jan.	276 $\frac{1}{4}$	298 $\frac{1}{2}$	148 $\frac{3}{4}$	95 $\frac{1}{4}$	285 $\frac{1}{4}$	88 $\frac{1}{2}$	-	1192 $\frac{1}{2}$	6.7	450 2.3
Feb.	197 $\frac{1}{4}$	220 $\frac{3}{4}$	91 $\frac{1}{2}$	-	226 $\frac{1}{4}$	124 $\frac{3}{4}$	-	860 $\frac{1}{2}$	8.6	382 $\frac{3}{4}$ 2.9
Total	3691	3769 $\frac{1}{2}$	2047 $\frac{3}{4}$	1502 $\frac{1}{2}$	3708 $\frac{1}{4}$	2566 $\frac{1}{4}$	978	18263 $\frac{1}{4}$		10925 $\frac{3}{4}$

FARM NO. 4.

Table 2.

Year 1911-12.

SUMMARY LABOR COSTS.

Acc't.	Man Hours.	Horse Hours.	Cost.
Horses	1315	71	204.35
Cows	507 $\frac{3}{4}$	205 $\frac{1}{2}$	781.61
Milk	1768 $\frac{1}{2}$	1135 $\frac{3}{4}$	378.85
Hogs	633 $\frac{3}{4}$	62 $\frac{1}{4}$	101.28
Poultry	110 $\frac{1}{2}$	11	17.68
House Hold	1484 $\frac{1}{4}$	207	243.34
Equipment	353 $\frac{1}{2}$	92	62.22
Improvements	790	173 $\frac{1}{2}$	135.85
Gen. Farm	254	148 $\frac{1}{4}$	52.92
Personal(Prop)	-	299	29.90
" (Sons)	-	1410 $\frac{3}{4}$	141.07
Feed	255 $\frac{1}{2}$	230	61.33
Seed	97	3 $\frac{1}{2}$	14.90
Garden	244 $\frac{1}{4}$	11 $\frac{1}{4}$	37.76
Orchard	67 $\frac{1}{2}$	20 $\frac{1}{2}$	12.18
Hog Lot(In peas)	8 $\frac{1}{4}$	14 $\frac{1}{2}$	2.69
Outside	133 $\frac{3}{4}$	185	38.56
Thrashing	105 $\frac{1}{2}$	11 $\frac{1}{2}$	16.98
1910 Crops	10 $\frac{3}{4}$	12 $\frac{1}{4}$	3.84
1912 "	14 $\frac{1}{4}$	10	3.14
Total Miscellaneous	12720	4314 $\frac{1}{2}$	\$2339.45

(Continued)

FARM NO. 4.

Table 2.

Year 1911-12.

SUMMARY LABOR COSTS.

Acc't.	Man Hours	Horse Hours	Costs.
Total Miscellaneous	12720	4314 $\frac{1}{2}$	\$2339.45
Field A Clover	117 $\frac{1}{2}$	114	29.02
" A Wheat	72 $\frac{1}{4}$	139 $\frac{1}{2}$	24.79
" A-2 Clover	49 $\frac{1}{2}$	53 $\frac{1}{2}$	12.77
" A-2 Wheat	62 $\frac{1}{2}$	121 $\frac{1}{2}$	21.53
" A-3 Clover	17 $\frac{1}{2}$	30	5.62
" A-3 Wheat	96	179 $\frac{1}{2}$	32.34
" A-4 Clover	54 $\frac{1}{2}$	54 $\frac{1}{2}$	13.62
" A-4 Cow Peas	222 $\frac{1}{4}$	239	57.24
" B-1 Timothy	48 $\frac{1}{4}$	61	13.34
" B-2(Clearing)	42 $\frac{1}{2}$	60 $\frac{1}{2}$	12.43
" B-3(")	465	361 $\frac{1}{4}$	105.88
" C-1 Canada Peas	36 $\frac{1}{2}$	62	11.67
" C-1 Cow Peas	43 $\frac{3}{4}$	56 $\frac{1}{2}$	12.21
" C-1 Oats	81	129 $\frac{3}{4}$	25.12
" C-1 Rye	82 $\frac{1}{2}$	161 $\frac{1}{2}$	28.52
" C-2 Pasture	32 $\frac{3}{4}$	43	9.22
" D-1 Pasture	26 $\frac{1}{4}$	33 $\frac{1}{2}$	7.30
" E-1 Oats	213 $\frac{1}{2}$	279	59.92
" E-1(3 A.Rented)	20 $\frac{1}{4}$	69 $\frac{1}{4}$	9.97
" E-1 Rye	141	233	44.45
Carried Forward.	14645 $\frac{1}{4}$	6796 $\frac{1}{4}$	2876.41

FARM NO. 4.

Table 2.

Year 1911-12.

SUMMARY LABOR COSTS.

Acc'y.	Man Hours	Horse Hours	Costs.
Brought Forward	14645 $\frac{1}{4}$	6796 $\frac{1}{4}$	2876.41
Field E-1 Cow Peas	124 $\frac{1}{2}$	152	33.88
" E-1 Rye	310 $\frac{1}{2}$	563 $\frac{1}{2}$	102.92
" E-2 Rye	24 $\frac{1}{2}$	41	7.77
" E-2 Wheat	26	43	8.20
" E-3 Rye	33 $\frac{3}{4}$	50 $\frac{1}{4}$	10.09
" E-3 Wheat	23 $\frac{3}{4}$	36	7.16
" E-4 Pasture	1 $\frac{1}{2}$	3	.53
" E-5 Pasture	3 $\frac{1}{4}$	6 $\frac{1}{2}$	1.14
" F-1 Oats	25 $\frac{3}{4}$	42 $\frac{1}{2}$	8.11
" F-1 Corn	628 $\frac{1}{2}$	784 $\frac{1}{4}$	172.70
" F-1 Wheat	119	212 $\frac{1}{4}$	39.06
" F-1 Rye	11	9 $\frac{1}{2}$	2.60
" F-2 Soy Beans	39 $\frac{1}{2}$	68	12.72
" F-2 Cow Peas	33 $\frac{1}{4}$	41 $\frac{1}{2}$	9.14
" F-3 Corn	695	599	164.15
" F-3 Cow Peas	76 $\frac{1}{2}$	94 $\frac{1}{2}$	20.93
" F-3 Wheat	90 $\frac{1}{4}$	162 $\frac{1}{2}$	29.79
" F-3 "	19 $\frac{3}{4}$	35 $\frac{1}{2}$	6.51
" G Corn	308 $\frac{3}{4}$	363 $\frac{1}{4}$	82.63
" G Cow Peas	84	44	17.00
Carried Forward	17324 $\frac{1}{4}$	10148 $\frac{1}{4}$	3613.45

Farm No. 4.

Table 2.

Year 1911-12.

SUMMARY LABOR COSTS.

Acc't.	Man Hours	Horse Hours	Costs.
Brought Forward.	17324 $\frac{1}{4}$	10148 $\frac{1}{4}$	3613.45
Field H Corn	662 $\frac{3}{4}$	546 $\frac{1}{4}$	154.04
" I-2-4 Wheat	141 $\frac{3}{4}$	213 $\frac{3}{4}$	42.64
" I-3 Alfalfa	45 $\frac{3}{4}$	71	13.96
Manure	283 $\frac{3}{4}$	329 $\frac{1}{2}$	75.52
TOTAL:	18458 $\frac{1}{4}$	11308 $\frac{3}{4}$	3899.60
Less 1911 Inventory	195	383	67.55
	18263 $\frac{1}{4}$	10925 $\frac{3}{4}$	

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 3.

Year 1911-12.

S U M M A R Y . FIELD CROPS.

Crop.	Acres.	COST			INCOME.		
		Total	Per Acre	Per Unit	Total	Per Acre	Per Unit
A Clover	7	70.84	10.120	8.85	134.50	19.214	16.812
A-2 "	3	29.31	9.769	9.769	43.00	14.333	14.333
A-3 "	6	35.82	5.969	23.880	18.00	3.000	12.000
A-4 "	9	40.23	4.471	8.940	54.00	6.000	12.000
A-4 Cow- Peas	9	133.68	14.854	22.280	95.00	10.555	15.833
B-1 Timothy	8	52.00	6.500	13.000	60.00	7.500	15.000
C-1 Cana- da Peas	2	25.47	12.738	25.470	15.00	7.500	15.000
C-1 Oats	6	57.54	9.590	*28.77	37.50	6.250	18.750
E-1 Oats	17	171.87	10.112	.357	315.00	18.529	.617
E-1 Rye	9	102.31	11.368	.787	131.50	3.243	.224
Cow- E-1 Peas	4	67.95	16.988	11.325	75.00	18.750	12.500
E-2 Rye	1½	16.72	11.155	2.090	9.60	6.400	1.200
E-3 "	2	22.00	11.000	2.200	12.50	6.250	1.250
F-1 Oats	3	26.70	8.900	.445	42.00	14.000	.700
F-1 Corn	12	253.41	21.118	2.640	312.00	26.000	3.250
F-2 Soy Beans	2	25.96	12.980	8.653	15.00	7.500	5.000
F-2 Cow Peas	1	21.42	21.428	21.428	17.50	17.500	17.500
F-3 Corn	17	272.16	16.010	.311	565.60	33.270	.645
F-3 Cow Peas	3	46.30	15.433	11.575	48.00	16.000	12.000
G Corn	6	110.53	18.422	2.303	156.00	26.000	3.250
* Per load: fed in sheaf.							

(Continued)

FARM NO. 4.

Table 3.
(Concluded)

Year 1911-12.

SUMMARY FIELD CROPS.

Crop.	Acres	COST			INCOME		
		Total	Per Acre	Per Unit	Total	Per Acre	Per Unit
G Cow- Peas	6	51.74	8.624	12.935	68.00	14.667	17.000
H Corn	10	201.81	201.810	.404	312.00	31.200	.624
I2-4 Wheat	7	87.08	12.440	.907	96.40	13.770	1.004
I-3-Al- falfa	3	30.19	10.65	20.127	22.50	7.50	15.000
	153 $\frac{1}{2}$	1953.04			2655.60		
GAIN		702.56					
		2655.60			2655.60		
		GAIN		702.56			
		Less Manure Charge					
		50%(116 loads@ \$1.00					
		plus cost of					
		hauling)			87.82		
		Net Gain			\$614.74		

Note: One half(Value of manure plus cost of hauling) charged to 1911 crops, because those crops receive approximately one half the value of average seasons.

	Cost	Income	Gain
Av. Per A. of Whole Farm	6.803	8.852	2.049
Av. Per A. of Cultivated Area (138 $\frac{1}{2}$)	14.735	19.174	4.439

FARM NO. 4.

Table 4.

Year 1911-12.

S U M M A R Y FIELD CROPS.

Crop	Acres	GAIN			LOSS		
		Total	Per Acre	Per Unit	Total	Per Acre	Per Unit
A-1							
Clover	7	63.66	9.094	7.95	-	-	-
A-2							
Clover	3	13.69	4.564	4.566	-	-	-
A-3							
Clover	6	-	-	-	17.82	2.969	11.880
A-4							
Clover	9	13.77	1.529	3.060	-	-	-
A-4							
Cow Peas	9	-	-	-	38.68	4.299	6.447
B-1							
Timothy	8	8.00	1.000	2.000	-	-	-
C-1Canada							
Peas	2	-	-	-	10.47	5.238	10.470
C-1							
Oats	6	-	-	-	20.04	3.340	10.020
E-1 Oats	17	143.13	8.417	.280	-	-	-
E-1 Rye	9	29.19	3.243	.224	-	-	-
E-1 Cow							
Peas	4	7.05	1.762	1.175	-	-	-
E-2 Rye	1½	-	-	-	7.12	4.775	.890
E-3 Rye	2	-	-	-	9.50	4.750	.950
F-1 Oats	3	15.30	5.100	.255	-	-	-
F-1							
Corn	12	58.59	4.882	.61	-	-	-
F-2 Soy							
Beans	2	-	-	-	10.96	5.480	3.653
F-2 Cow							
Peas	1	-	-	-	3.92	3.928	3.928
F-3							
Corn	17	293.44	17.26	.334	-	-	-
F-3 Cow							
Peas	3	1.70	.567	.425	-	-	-
G Corn	6	45.47	7.578	.947	-	-	-
G Cow							
Peas	6	16.26	6.043	4.065	-	-	-

(Continued)

FARM NO. 4.

Table 4.(Concluded)

Year 1911-12.

S U M M A R Y FIELD CROPS.

Crop	Acres	GAIN			LOSS		
		Total	Per Acre	Per Unit	Total	Per Acre	Per Unit
H Corn	10	110.19	11.019	.22	-	-	-
I-2-4							
Wheat	7	9.32	1.333	.097	-	-	-
I-3							
Alfalfa	3	-	-	-	7.69	3.15	5.127

TOTAL	153 $\frac{1}{2}$	828.76			126.20		
			GAIN		702.56		
		828.76			828.76		
		GAIN			702.56		
Less Manure charge 50% (116 loads @							
\$1.00 plus cost of							
hauling)							
					87.82		
		Net GAIN			\$614.74		

Note: One half(value of manure plus cost of hauling) charged to 1911 crops, because those crops receive approximately one half the value of average seasons.

	Cost	Income	Gain
Av. per Acre of Whole Farm	6.803	8.852	2.049
Av. per Acre of Cultivated Area (138 $\frac{1}{2}$)	14.735	19.174	4.439

FARM NO. 4.

Table 3.
(Supplement)

Labor Costs of 1912 Crops.

Preparing Ground and
Planting.

Field	Crop	Acres	COST	
			Total	Per Acre
A	Wheat	7	24.79	3.541
A-2	"	5	21.53	4.305
A-3	"	6	32.34	5.390
C-1	Rye	6	28.52	4.753
E-1	Rye	30	102.92	3.429
E-2	Wheat	1½	8.20	5.466
E-3	"	2	7.16	3.582
F-1	"	15	39.06	2.606
F-3	"	17	29.79	1.752
F-3	"	3	6.51	2.172

Rates:- Man 15¢ Horse 10¢.

FARM NO.4.

Table 5.

1911-12		Crop: Clover.		7 Acres.		Field A.	
Operation Dates		Total		Per Acre		Remarks.	
		Man	Horse	Cost	Man	Horse	Cost
		hrs.	hrs.		hrs.	hrs.	
Cutting for feed 5/23-25	2	4	.70	.30	.60	.100	Cut before main crop.
Hauling 5/23-26	6 $\frac{1}{2}$	10	1.97	.93	1.43	.281	4 small loads, about 2T
Raking 5/26	$\frac{1}{2}$	1	.18	.07	.14	.026	Raking a part of above
<u>Ist. Cutting</u>							
Cutting clover 6/12	7 $\frac{1}{4}$	14 $\frac{1}{2}$	2.54	1.03	2.07	.363	5ft. McCormick
Suptc. 6/13	1	-	.15	.14	-	.021	
Tedding 6/13	2 $\frac{1}{2}$	5	.87	.36	.71	.124	
Raking 6/13	3 $\frac{1}{2}$	7	1.23	.50	1.00	.176	
Shocking 6/13-14	7 $\frac{3}{4}$	-	1.16	1.11	-	.166	
Hauling 6/13-15	60	45	13.50	8.57	6.43	1.929	About 6Tons
Total Ist Crop	91	86 $\frac{1}{2}$	\$22.30	13.01	12.38	\$3.186	
<u>II Ind. Crop (for seed.)</u>							
Suptc. 8/11	1	-	.15	.14	-	.021	
Cutting 8/11-15	8 $\frac{1}{4}$	16 $\frac{1}{2}$	2.89	1.18	2.36	.413	McCormick with buncher
Turning 9/20-23	8 $\frac{3}{4}$	-	1.31	1.25	-	.187	
Hulling 9/23	8 $\frac{1}{2}$	11	2.37	1.21	1.57	.339	Hauled to neighbors. 2 $\frac{3}{4}$ bu. seed.
Total II Ind. Crop	26 $\frac{1}{2}$	27 $\frac{1}{2}$	\$6.72	3.78	3.93	\$.960	

(Continued)

FARM NO. 4.

Table 5. (Concluded)

1911-12

Crop: Clover.

7 Acres.

Field A.

	Total			Per Acre			Remarks.
	Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Total Labor Cost	117½	114	29.02	16.79	16.31	4.146	
Thrashing			3.00			.428	At rate of 6# per Acre
Seed (on 2yr. basis)			4.20			.600	\$12 per Bu.
Equipment			5.57			.796	
Taxes			2.80			.400	
Interest, 5%			26.25			3.750	
TOTAL COST :-			\$70.84			\$10.120	

Y I E L D S .

8 Tons Hay @ \$12. - - - - \$96.00

2¾ Bu. Seed @ \$14. - - - - \$38.50

\$134.50

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	70.84	10.120	8.855
Income	134.50	19.214	16.812
GAIN	\$63.66	\$9.094	\$7.957

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 6.

Year 1911-12. Crop:- Clover. 5 Acres(3A. Harvested) Field A 2

Operation Dates	Total			Per Acre			Remarks.
	Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Cutting for feed 5/25	1½	3	.52	.50	1.00	.175	Early for feed. 1 Ton.
Raking 5/27	½	1	.18	.17	.33	.058	
Shocking 5/27	2½	-	.37	.83	-	.125	
Hauling 5/27	1½	3	.53	.50	1.00	.175	
Ist. Crop							
Cutting 6/8	7½	13½	2.44	2.42	4.50	.813	5Ft. McCor-
Raking 6/10	1½	3	.52	.50	1.00	.175	mick.
Hauling 6/10	27	16½	5.70	9.00	5.50	1.900	4 small loads
Total Ist Crop	41½	40	10.26	13.92	13.33	3.421	2 Tons.
IIInd Crop (for seed)							
Cutting 8/15	4½	9½	1.66	1.58	3.16	.553	McCormick with buncher.
Hauling 9/23	3	4	.85	1.00	1.33	.283	Thrashed at neighbors.
Total IIInd. Crop	7½	13½	2.51	2.58	4.49	.836	
Total Labor Cost	49½	53½	12.77	16.50	17.82	4.257	
Thrashing			.50			.166	
Seed (on 2yr. basis)			1.80			.600	at rate of
Equipment			1.79			.596	6¢ per A. @.
Taxes			1.20			.400	\$12. per Bu.
Interest @ 5%			11.25			3.750	
TOTAL COST			\$29.31			\$9.769	

YIELDS.

3Tons Hay @	\$12. - - -	\$36.00
½ Bu. Seed @	\$14. - - -	\$7.00
		<u>\$43.00</u>

SUMMARY.

	Total	Per Acre	Per Ton
Cost	29.31	9.769	9.769
Income	43.00	14.333	14.333
GAIN	\$13.69	\$4.564	\$4.566

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 7.

Year 1911-12 Crop:- Clover. 6Acres. Field A 3

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost
Cutting 5/29-30	12½	23	4.11	2.08	3.83	.695	6Acres
Raking 6/1	1¾	3½	.61	.29	.58	.101	mowed-1A. hauled in.
Hauling 6/3	3¼	3½	.84	.54	.58	.140	1 load, ¾T.
Labor Cost	17½	30	5.62	2.91	4.99	.936	
Seed(on 2yr.basis)			3.60			.600	
Equipment			1.70			.283	
Taxes			2.40			.400	
Interest			22.50			3.750	
Total Cost			\$35.82			\$5.969	

YIELDS.

Clover Hay 1½ Tons @ \$12. - - -\$18.00

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	35.82	5.969	23.880
Income	18.00	3.000	12.000
LOSS	\$17.82	\$2.969	\$11.880

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 8.

Year 1911-12 Crop:- Clover 9 Acres. Field A 4.

Operation Dates	Total			Per Acre			Remarks.
	Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Cutting 5/30-6/3	9	18	3.15	1.00	2.00	.350	5 Ft. McCormick.
Raking 6/2-5	4	8	1.40	.44	.88	.155	
Hauling 6/3-5	41½	28½	9.07	4.61	3.17	1.008	4½ Tons.
Total Labor Cost	54½	54½	13.62	6.05	6.05	1.513	
Seed (On 2Yr. basis)			5.40			.600	Rate 6¢ per A. @20¢ per #.
Equipment			2.54			.283	
Taxes (½ to this crop)			1.80			.200	½ Taxes & Int. to following
Interest (")			16.87			1.875	crop of peas.
TOTAL COST			\$40.23				\$4.471

YIELDS.

Clover Hay 4½ Tons @ \$12. - - - \$54.00

SUMMARY.

	Total	Per Acre	Per Ton
Cost	40.23	4.471	8.94
Income	54.00	6.000	12.00
GAIN	\$13.77	\$1.529	\$3.06

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 9.

Year 1911-12.

Crop:- Cow Peas.

9 Acres

Field A 4.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	
Plowing for 6/27-29	56 $\frac{3}{4}$	113 $\frac{1}{2}$	19.86	6.30	12.61	2.207	122 In. Walking Plow.
Burning Weeds 6/28	1	-	.15	.11	-	.017	
Suptc. 6/29	1	-	.15	.11	-	.017	
Harrowing for 6/28-30	10 $\frac{1}{4}$	20 $\frac{1}{2}$	3.59	1.14	2.28	.399	Disc Harrow.
Sowing 6/28-30	16 $\frac{1}{2}$	26	5.04	1.80	2.89	.560	Disc Drill 8hole
Cutting 10/18-23	10 $\frac{1}{4}$	21 $\frac{1}{2}$	3.76	1.19	2.39	.418	McCormick.
Raking 10/26-11/3	5 $\frac{1}{2}$	11	1.92	.61	1.22	.213	
Shocking 10/28-11/14	42 $\frac{1}{2}$	-	6.38	4.72	-	.709	
Turning 10/31	3 $\frac{1}{4}$	-	.49	.36	-	.054	
Capping 11/4-14	1 $\frac{1}{4}$	1 $\frac{1}{2}$	.41	.19	.17	.046	Canvas hay caps.
Gathering Caps 11/30	3 $\frac{1}{4}$	2 $\frac{1}{2}$	.74	.36	.28	.082	
Shredding 11/16-30	48 $\frac{1}{2}$	35 $\frac{1}{2}$	10.82	5.39	3.94	1.202	12H.P. Gasoline Engine 4Roll
Hulling Peas 11/30-12/4	21 $\frac{1}{2}$	7	3.93	2.39	.78	.436	Shredder. With Shredder, blew Straw into mow.
Total Labor							
Cost	222 $\frac{1}{4}$	239	57.24	24.67	26.56	6.360	
Seed			45.00			5.000	Whips. @ \$2.50 per bu. 2bu. per A.
Equipment			10.82			1.202	
Taxes ($\frac{1}{2}$ to this crop)			1.80			.200	$\frac{1}{2}$ charged to clover.
Interest $\frac{1}{2}$ (5%)			16.87			1.875	$\frac{1}{2}$ charged to clover.
Fuel (Gasoline)			1.95			.217	12 $\frac{1}{2}$ Gal. @ 13¢.
TOTAL COST			\$133.68			\$14.854	

YIELDS.

6 Tons Hay @ \$10. - - - - \$60.00

14 Bu. Seed @ 2.50 - - - - 35.00

Total \$95.00

Hay Damaged by Storms.

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	133.68	14.854	22.280
Income	95.00	10.555	15.833
LOSS	\$38.68	\$4.299	\$6.447

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 10.

Year 1911-12. Crop:- Timothy. 8 Acres Field B-L.

Operation Dates	Total			Per Acre			Remarks.
	Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Cutting 6/22-7/6	17 $\frac{3}{4}$	33 $\frac{1}{2}$	6.01	2.22	4.19	.751	McCormick.
Raking 6/23-7/7	3 $\frac{1}{4}$	6 $\frac{1}{2}$	1.14	.40	.82	.142	9Ft.
Hauling 6/23-7/7	27 $\frac{1}{4}$	21	6.19	3.41	2.64	.774	
Total Labor Cost	48 $\frac{1}{4}$	61	13.34	6.03	7.65	1.667	
Seed*(On 4yr.basis)			2.40			.300	12# Per A. @ 10¢.
Equipment			3.06			.383	
Taxes			3.20			.400	
Interest(At 5%)			30.00			3.750	
TOTAL COST			\$52.00			\$6.500	

YIELDS.

4 Tons @ \$15.00- - - \$60.00

S U M M A R Y .			
	Total	Per Acre	Per Ton
Cost	52.00	6.500	13.00
Income	60.00	7.500	15.00
GAIN	\$8.00	\$1.000	\$2.00

Rates:- Man 15¢ Horse 10¢.

* On the average tillable field with which we are cooperating, the grass is left as meadow about four years. So, for uniformity we make this charge here.

FARM NO. 4.

Table 11.

Year 1911-12.

Crop:- Canada Peas. 2 Acres,

Field C 1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Discing for 3/22-23	2	4		.70	1.00	2.00	.350	
Plowing for 3/25-28	8	16		2.80	4.00	8.00	1.400	12 In. Walking Plow.
Harrowing for 3/23-29	3½	7		1.22	1.75	3.50	.612	
Suptc. 3/28	1	-		.15	.50	-	.075	
Sowing 3/24-29 " Oats.	10	20		3.50	5.00	10.00	1.750	Sowed 3 Bu.
in Peas 3/28	3½	7		1.23	1.75	3.50	.615	1 bu. per A.
Cutting 6/12	2½	3		.67	1.25	1.50	.337	
Raking 6/13	1	2		.35	.50	1.00	.175	
Hauling 6/15-16	5	3		1.05	2.50	1.50	.525	
Total Labor Cost	36½	62		11.67	18.25	31.00	5.839	
Seed Cost				8.40			4.200	Peas @ \$2.50 Oats @ .45.
Equipment				1.25			.624	
Taxes (½ to this crop)				.40			.200	
Interest (")				3.75			1.875	
TOTAL COST				\$25.47			\$12.738	

YIELDS.

1 Ton Pea Hay - - - \$15.00

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	25.47	12.738	25.47
Income	15.00	7.500	15.00
LOSS	\$10.47	\$5.238	\$10.47

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 12.

Year 1911-12. Crop:- Cow Peas. 2 Acres Field C 1.

Operation	Dates	Total		Per Acre		Remarks.	
		Man hrs.	Horse hrs.	Cost	Man hrs.		Horse hrs.
Plowing for 6/22-26	11	22	3.85	5.50	11.00	1.925	12In. Walking Plow.
Suptc. 6/26-8/21	4	-	.60	2.00	-	.300	
Harrowing for 6/26	3½	7	1.22	1.75	3.50	.610	Disc Harrow.
Planting 6/26	2½	5	.88	1.25	2.50	.440	Disc Drill 8 Hole.
Harrowing after 6/29	1½	3	.52	.75	1.50	.260	Spiketooth Harrow.
Cutting and Shocking 9/21-30	15¼	13½	3.64	7.62	6.75	1.820	McCormick 5 Ft.
Hauling 26/10-29	6	6	1.50	3.00	3.00	.750	Pea vines off. 2 Loads Hauled to cows Green.
Total Labor Cost	43¾	56½	12.21	21.87	28.25	6.105	
Seed			7.50			3.750	3 bu. @ \$2.50 per
Equipment			.90			.448	
Taxes (½ to last crop)			.40			.200	
Interest (")			3.75			1.875	
TOTAL COST			\$24.76			\$12.378	

YIELDS.

Peas Pastured.

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 13.

Year 1911-12. Crop:- Oats. 6 Acres Field C 1.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost
Discing for 3/22-23	6	12	2.10	1.00	2.00	.350	Disc Harrow.
Plowing for 3/25-28	24	42	7.80	4.00	7.00	1.300	12In. Walking Plow.
Harrowing for 3/23-29	10 $\frac{3}{4}$	21 $\frac{1}{2}$	3.76	1.79	3.58	.626	Spiketooth.
Suptc. 3/28-6/13	1	1	.25	.16	.17	.042	
Planting 4/7-8	6 $\frac{1}{2}$	13	2.27	1.08	2.17	.379	2Bu. per Acre @ 45¢.
Making Water Furrows 4/22	1 $\frac{1}{2}$	1 $\frac{1}{2}$	.38	.25	.25	.063	
Cutting Oats 7/3-4	11 $\frac{1}{2}$	27 $\frac{3}{4}$	4.50	1.92	4.62	.750	McCormick Har- vester.
Shocking 7/4-8	8 $\frac{1}{2}$	-	1.27	1.43	-	.212	
Hauling 7/11	11 $\frac{1}{4}$	11	2.79	1.87	1.83	.465	2 Loads to Barn in sheaf.
Total Labor Cost	81	129 $\frac{3}{4}$	25.12	13.50	21.62	4.187	
Seed			5.40			.900	
Equipment			2.12			.353	
Taxes			2.40			.400	
Interest			22.50			3.750	
TOTAL COST			\$57.54			\$9.590	

YIELDS.

2 Loads Sheaf Oats. - - \$37.50.

S U M M A R Y .

	Total	Per Acre	Per Load
Cost	57.54	9.590	28.77
Income	37.50	6.250	18.75
LOSS	\$20.04	\$3.340	\$10.02

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 7.
(Supplement)

Year 1911-12. Crop:- Wheat. 6 Acres. Field A 3.

Operation Dates	Total			Per Acre			Remarks.
	Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing 8/22-25	56½	112	19.67	9.41	18.66	3.268	12In.Walking Plow.
Harrowing 9/5 " before	13½	17½	3.77	2.25	2.92	.628	
Sowing 10/10	2½	5	.87	.41	.83	.145	
Sowing Barley ½ Acre 10/11	1½	3	.53	3.00	6.00	1.05	Test Plot Disc Drill.
Sowing Wheat 5½ Acres	13¾	25½	4.61	2.50	4.64	.838	1¼ bu. per A.
Harrowing in 6 Acres 10/11-12	8¼	16½	2.89	1.37	2.75	.482	
Total on 6 Acre Basis	96	179½	32.34	15.99	29.91	5.390	

FARM NO. 4.
Table 13.
(Supplement)

Year 1911-12. Crop:- Rye. 6 Acres. Field C 1.

Plowing for 7/26-8/3	53¾	102	18.26	8.96	17.00	3.043	12In.Walking Plow.
Harrowing for 8/1-10/24	12	29½	4.75	2.00	4.92	.791	Disc Harrow.
Sowing 8/1- 10/25	12¼	21	3.94	2.04	3.50	.657	
Harrowing After Sowing 8/1-10/25	4½	9	1.57	.75	1.50	.262	
TOTAL	82½	161½	28.52	13.75	26.92	4.753	

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 14.

Year 1911-12. Crop:- Oats. 17 Acres. Field E 1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Discing for 3/15-22		30	60	10.50	1.77	3.53	.618	Disc Harrow.
Filling Ditches 3/16-17		10½	11½	2.72	.63	.67	.160	
Harrowing for 3/20-22		19½	39½	6.91	1.16	2.32	.406	Spiketooth.
Sowing 3/21-23		19½	38	6.73	1.15	2.24	.396	46 Bu. Seed @ 45¢ with Drill.
Cutting 6/20-7/3		25	69	10.65	1.47	4.06	.626	8 Ft. McCormick.
Shocking 6/23-7/3		32½	-	4.84	1.89	-	.285	
Suptc. 7/12		1	-	.15	.06	-	.009	
Stacking 7/16-15		63	51½	14.60	3.70	3.03	.859	
Thrashing 7/21-22		12½	9½	2.82	.73	.56	.166	510 Bu.
Total Labor		213½	279	59.92	12.56	16.41	3.525	
Seed				20.70			1.219	
Equipment				6.20			.365	
Thrashing				14.50			.853	
Taxes				6.80			.400	
Interest (5%)				63.75			3.750	

TOTAL COST \$171.87

\$10.112

YIELDS.

510 Bu. Oats @ 50¢ - - - \$255.00
12 Tons Straw @ \$5. (Estd) 60.00

Total \$315.00

SUMMARY.

	Total	Per Acre	Per Bu.
Cost	171.87	10.112	.337
Income	315.00	18.529	.617
GAIN	\$143.13	\$8.417	\$.280

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 15.

Year 1911-12.

Crop:- Rye.

9 Acres.

Field E-1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
From 1910 Acc't.	90		175	31.00	10.00	19.44	3.444	
Cutting	6/17-26	11½	33	5.02	1.28	3.67	.558	McCormick Harvester.
Shocking	6/19-20	14¼	-	2.14	1.58	-	.238	
Resetting	Shocks 6/27	1½	-	.23	.16	-	.026	
Stacking	7/15-17	3½	3½	.87	.39	.39	.097	
Thrashing	7/21-22	10½	9	2.48	1.17	1.00	.275	
Hauling	8/4-11/23	9¾	12½	2.71	1.08	1.39	.301	
Total Labor Cost		141	233	44.45	15.66	25.89	4.939	
Seed				10.12			1.125	1¼ Bu.
Equipment				3.89			.432	
Thrashing				6.50			.722	
Taxes				3.60			.400	
Interest				33.75			3.750	
TOTAL COST				102.31			11.368	

YIELDS.

130 Bu. Rye @ \$.95 - - - - \$123.50
 4 Tons Straw @ 2.00 - - - - 8.00

Total \$131.50

SUMMARY.

Cost	Total	Per Acre	Per Bu.
	102.31	11.368	.787
Income	131.50	14.611	1.011
GAIN	\$29.19	\$3.243	\$.224

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 16.

Year 1911-12. Crop:- Cow Peas. 4 Acres. Field E 1.

Operation Dates	Total			Per Acre			Remarks.
	Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing for 5/25-6/27	26½	51	9.07	6.62	12.75	2.267	12In.Walking Plow.
Discing for 6/8-26	4¼	8½	1.49	1.06	2.12	.372	Disc Harrow.
Harrowing for 6/7-9	5¼	12½	2.04	1.31	3.13	.510	World Beater
Raking off Weeds 6/9	1	2	.35	.25	.50	.087	
Harrowing for 6/27	8	14	2.60	2.00	3.50	.650	Spiketooth 8Ft.
Sowing 6/9-27	10½	13½	2.93	2.63	3.38	.733	Disc Drill
Cutting And Hauling 9/4-6	3¾	4½	1.01	.94	1.12	.252	Small load for cows.
Cutting 10/9-17	6¾	13½	2.36	1.69	3.37	.590	Main Crop.
Raking 10/14-25	3¾	6½	1.21	.94	1.63	.303	
Shocking 10/14-26	15¼	-	2.29	3.81	-	.573	
Capping 10/16-11/8	6¼	3½	1.29	1.56	.87	.323	
Turning 10/14-27	7	-	1.05	1.75	-	.262	
Hauling 10/16-31	26¼	22½	6.19	6.56	5.63	1.548	
Total Labor Cost	124½	152	33.88	31.12	38.00	8.470	
Seed			15.00			3.750	1½bu. per A. @
Equipment			2.47			.618	\$2.50
Taxes			1.60			.400	
Interest			15.00			3.750	
TOTAL COST			\$67.95			\$16.988	

YIELDS.

6 Tons Hay @ \$12.50 - - \$75.00

SUMMARY.

	Total	Per Acre	Per Ton
Cost	67.95	16.988	11.325
Income	75.00	18.750	12.500
GAIN	\$7.05	\$1.762	\$1.175

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Tables: 14-15-16.

(Supplement)

Year 1911-12. Crop:- Rye. 30 Acres. Field E 1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing for 8/11-9/1	184½	369	64.57	6.15	12.30	2.152	12In. Walking Plow	
Carrying Lunch 8/15-28	1¼	-	.19	.04	-	.006		
Suptc. 8/21	3	-	.45	.10	-	.015		
Harrowing 8/21- 10/27	55¼	111½	19.51	1.86	3.72	.650	Spiketooth Har- row 8 Ft.	
Filling Ditches 8/26	3½	3½	.88	.12	.12	.029		
Sowing Rye 8/28-10/27	33¼	60½	11.11	1.12	2.02	.370	Disc Drill 8hole.	
Making Water Furrows 8/28-9/23	28¼	19	6.21	.96	.63	.207		
Total	310½	563½	102.92	10.35	18.79	3.429		

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 17.

(Supplement)

Year 1911-12.	Crop:-	Wheat.	1½ Acres.	Field E 2.
Plowing for 8/25-26	14½	29	5.07	9.66 19.33 3.380
Cutting Weeds 8/26	3	-	.45	2.00 - .300
Harrowing 9/6-10/5	5	8	1.55	3.33 5.33 1.033 Disc Harrow.
Planting 10/5	2½	4	.78	1.66 2.66 .520 Disc Drill.
Harrowing after Planting 10/5	1	2	.35	.66 1.33 .233 Spiketooth Harrow.
Total	26	43	8.20	17.31 28.65 5.466

Rates:- Man 15¢. Horse 10¢.

FARM NO. 4.

Table 17.

Year 1911-12. Crop:- Rye. 1 $\frac{1}{2}$ Acres. Field E 2.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
From 1910 Acct.		16	32	5.60	10.66	21.33	3.734	
Cutting 6/20		1	3	.45	.67	2.00	.300	
Shocking 6/20		2	0	.30	1.33	-	.200	
Stacking 7/17		2	2	.50	1.33	1.33	.333	
Thrashing 7/21-22	1 $\frac{1}{2}$	2	2	.42	1.00	1.33	.280	
Hauling 8/12-22		2	2	.50	1.33	1.33	.333	
Total Labor Cost	24 $\frac{1}{2}$	41		7.77	16.32	27.32	5.180	
Seed				1.68			1.125	1 $\frac{1}{4}$ bu. per A. @ 90¢.
Equipment				.65			.433	
Thrashing				.40			.267	
Taxes				.60			.400	
Interest				5.62			3.750	
TOTAL COST				\$16.72			\$11.155	

YIELDS.

8 Bu. Grain @ 95¢ - - - \$7.60
1 Ton Straw @ \$2.00 - - 2.00

SUMMARY.

	Total	Per Acre	Per Bu.
Cost	16.72	11.155	2.09
Income	9.60	6.400	1.20
LOSS	\$7.12	\$4.755	\$.89

Rates:- Man 15¢. Horse 10¢.

FARM NO. 4.

Table 18.

Year 1911-12.	Crop:- Rye.		2 Acres.		Field E 3.	
Operation	Dates	Total		Per Acre		Remarks.
		Man hrs.	Horse hrs.	Man hrs.	Horse hrs.	
1910 Acct.		19	36	9.50	18.00	3.225
Cutting 6/20		4 $\frac{1}{4}$	8 $\frac{1}{4}$	2.12	4.12	.732 McCormick.
Shocking 6/20		4 $\frac{1}{4}$	-	2.12	-	.320
Stacking 7/17		1 $\frac{3}{4}$	1 $\frac{1}{2}$	.87	.75	.205
Thrashing 7/21-22		2	2	1.00	1.00	.250
Hauling 8/4-7		2 $\frac{1}{2}$	2 $\frac{1}{2}$	1.25	1.25	.315
Total Labor Cost		33 $\frac{3}{4}$	50 $\frac{1}{4}$	16.86	25.12	5.047
Seed				2.25		1.125 1 $\frac{1}{4}$ Bu. per A. @ 90¢.
Equipment				.86		.433
Thrashing				.50		.250
Taxes				.80		.400
Interest				7.50		3.750
TOTAL COST				\$22.00		\$11.005

YIELDS.

10 Bu. Grain @ \$.95 - - - \$9.50
 1 $\frac{1}{2}$ Tons Straw @ \$2.00 - - - 3.00

Total \$12.50

SUMMARY.

	Total	Per Acre	Per Bu.
Cost	22.00	11.00	2.20
Income	12.50	6.25	1.25
LOSS	\$9.50	\$4.75	\$.95

Rates:- Man 15¢. Horse 10¢.

FARM NO. 4.

Table 19.

Year 1911-12. Crop:- Oats. 3 Acres. Field F 1.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Discing for 3/23-24	6	12	2.10	2.00	4.00	.700		Disc Harrow.
Harrowing for 3/24	4	8	1.40	1.33	2.66	.466		Spiketooth.
Sowing 3/24	4	8	1.40	1.33	2.66	.466		Disc Drill
Cutting 7/3	3½	10½	1.57	1.16	3.50	.523		2½ Bu. per A. @ 45¢.
Shocking 7/3	3¾	-	.56	1.25	-	.187		
Stacking 7/11	2	2	.50	.66	.66	.167		
Thrashing 7/21-22	2½	2	.58	.83	.66	.193		
Total Labor Cost 25½		42½	8.11	8.56	14.14	2.702		
Seed			3.37			1.125		
Equipment			.97			.323		
Thrashing			1.80			.600		
Taxes			1.20			.400		
Interest			11.25			3.750		
TOTAL COST			\$26.70			\$8.900		

YIELDS.

60 Bu. Oats @ 50¢.-	- - -	\$30.00
1½ T. Straw @ \$8.00-	- -	12.00
		<u>\$42.00</u>

SUMMARY .

	Total	Per Acre	Per Bu.
Cost	26.70	8.90	.445
Income	42.00	14.00	.700
GAIN	<u>\$15.30</u>	<u>\$5.10</u>	<u>\$.255</u>

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 20.

Year 1911-12. Crop:- Corn 12 Acres. Field F 1.

Operation	Dates	Total			Per Acre		Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	
Plowing for 5/18-23	109½	219	38.32	9.13	18.25	3.193	12In. Walking Plows
Harrowing for 5/18-6/1	20	50	8.00	1.67	4.16	.667	Disc Harrow.
Planting 6/1-2	19¾	24	5.36	1.65	2.00	.447	Black Hawk edge drop.
Harrowing 6/7	4½	9	1.58	.38	.75	.132	Spiketooth.
Re-planting 6/13-21	16¾	-	2.51	1.39	-	.209	
Cultivating 1st. 6/12-15	31	62	10.85	2.58	5.17	.904	Ka Deere 1row.
" 2nd. 6/19-20	27¼	54½	9.54	2.27	4.54	.795	" "
" 3rd, 4th, 5th. 6/30-7/8	57¼	114½	20.04	4.77	9.54	1.670	Three times over.
" 6th. 7/12-22	34¼	49¼	10.06	2.85	4.10	.838	Part of plow- ing with 1horse
Putting in Silo 9/4-9/21	308¼	202	66.44	25.69	16.83	5.537	harrow.
Total Labor Cost	628½	784¼	172.70	52.38	65.34	14.392	
Seed			3.50			.292	1¼ bu. @ \$2.00
Equipment			21.48			1.790	
Fuel (Gasoline)			5.93			.494	1.2 gal. per hr
Taxes			4.80			.400	@ 13¢.
Interest			45.00			3.750	
Total Cost			\$253.41			\$21.118	

YIELDS.

96 Tons Silage @ \$3.25- - - \$312.00

S U M M A R Y .			
	Total	Per Acre	Per Ton
Cost	253.41	21.118	2.64
Income	312.00	26.000	3.25
GAIN	\$58.59	\$4.882	\$.61

Rates:- Man 15¢. Horse 10¢.

FARM NO. 4.

Table 18.

(Supplement).

Year 1911-12. Crop:-Wheat. 2 Acres. Field E 3.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Cutting Weeds	8/25	2	4	.70	1.00	2.00	.350	
Plowing for Wheat	8/26	9½	19	3.32	4.75	9.50	1.660	12In. Walking Plow.
Harrowing for	9/6	2½	3	.68	1.25	1.50	.340	Spiketooth Harrow.
Drilling	10/5	5¼	7	1.49	2.62	3.50	.745	Disc Drill
Harrowing after	10/5	2	3	.60	1.00	1.50	.300	Spiketooth Harrow.
Sowing Timothy	10/6	2½	-	.37	1.25	-	.187	
Total		23¾	36	7.16	11.87	18.00	3.582	

Rates:- Man 15¢ Horse 10¢.

Farm NO. 4.

Tables 19 - 20
(Supplement).

Year 1911-12. Crop:- Wheat. 15 Acres. Field F 1.

Plowing for	8/3-9/6	43½	86	15.12	2.90	5.73	1.010	Part of field broken, rest disc
Discing	7/26-10/7	19	37¼	6.57	1.27	2.48	.438	Disc Harrow.
Harrowing	9/5-10/9	14¼	28½	4.99	.95	1.90	.333	Spiketooth.
Making Water Furrows	10/5-13	16¾	11½	3.66	1.12	.76	.244	
Sowing	10/6-13	19¼	37½	6.71	1.36	2.50	.447	Disc Drill.
Harrowing Shut	10/13	5¾	11½	2.01	.38	.76	.134	
Total		119	212¼	39.06	7.98	14.13	2.606	

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 21.

Year 1911-12.

Crop:- Soy Beans. 2 Acres.

Field F 2

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	
Plowing for 5/24-26	12	24	4.20	6.00	12.00	2.100	12 In. Walk- ing Plow.
Harrowing for 5/26-6/2	5	10	1.75	2.50	5.00	.875	Disc Harrow.
Making Water Furrows 5/26	$\frac{1}{2}$	-	.08	.25	-	.038	Ditch Grader.
Sowing Soy Beans 6/3	3	6	1.05	1.50	3.00	.525	Black Hawk with Pea At- tachment.
Harrowing Beans 6/9	$\frac{3}{4}$	$1\frac{1}{2}$	.26	.38	.75	.130	Spiketooth.
Cultivating 1st 6/20	1	2	.35	.50	1.00	.175	
" 2nd 7/3	$\frac{1}{2}$	1	.17	.25	.50	.087	
" 3rd. 7/13	$\frac{1}{2}$	1	.18	.25	.50	.088	
Cutting Weeds 8/4	2	-	.30	1.00	-	.150	
Cutting Soy Beans 8/17	$3\frac{3}{4}$	$9\frac{1}{2}$	1.51	1.87	4.75	.755	
Putting in Silo 8/18	$10\frac{1}{2}$	13	2.87	5.25	6.50	1.437	3 Tons.
Total Labor Cost	$39\frac{1}{2}$	68	12.72	19.75	34.00	6.360	
Seed			2.00			1.000	1 Bu. seed @ \$2.00
Equipment			2.32			1.160	
Fuel (Gasoline)			.62			.310	1.2 gal per
Taxes			.80			.400	hr. @ 13¢.
Interest			7.50			3.750	
TOTAL COST			\$25.96			\$12.980	

YIELDS.

Three Tons Silage @ \$5.00- - - \$15.00

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	25.96	12.98	8.653
Income	15.00	7.50	5.000
LOSS	\$10.96	\$5.48	\$3.653

Rates:- Man 15¢. Horse 10¢.

FARM NO. 4.

Table 22.

Year 1911-12. Crop:- Cow Peas 1 Acre. Field F 2.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	
Plowing for 5/24-26	5½	11	1.92	5.50	11.00	1.925	12In.Walking Plow.
Harrowing for 5/26-6/2	2¼	4½	.79	3.25	4.50	.790	Disc Harrow.
Sowing 6/3	1	2	.35	1.00	2.00	.350	Disc Drill.
Harrowing 6/9	¼	½	.09	.25	.50	.090	
Cultivating 6/20	½	1	.18	.50	1.00	.175	
Suptc. 6/20	1	-	.15	1.00	-	.150	
Cutting 8/30-10/23	9¼	10	2.39	9.25	10.00	2.390	Part of crop cut for seed.
Hauling and Hulling 10/18	2½	5	.87	2.50	5.00	.875	Hulled 3 Bu.
Hauling Hay 10/17-11/9	11	7½	2.40	11.00	7.50	2.400	2 Loads.
Total Labor							
Cost	33¼	41½	9.14	33.25	41.50	9.145	
Seed			7.50			7.500	3Bu.seed @ \$2.50
Equipment			.63			.633	
Taxes			.40			.400	
Interest			3.75			3.750	
TOTAL COST			21.42			21.428	

YIELDS.

1 Ton Hay	--	--	\$10.00
3 Bu. peas @ \$2.50	--	--	7.50
Total			\$17.50

SUMMARY.

	Total	Per Acre	Per Ton
Cost	21.42	21.428	21.42
Income	17.50	17.500	17.50
LOSS	\$3.92	\$3.928	\$3.92
Rates:- Man 15¢ Horse 10¢.			

FARM NO. 4.

Table 23.

Year 1911-12. Crop:- Corn. 17 Acres. Field F 3.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Plowing								
for 5/12-17	82½	165	28.87	4.85	9.71	1.699	12In. Walking	
Harrowing								Plow.
for 5/13-18	23	61	9.55	1.35	3.59	.562	Disc Harrow.	
Planting 5/17-18	14½	25	4.64	.84	1.47	.273	Black Hawk.	
Ditching 5/19-26	12	8	2.60	.71	.47	.153		
Replanting 6/6-7	21½	-	3.26	1.28	-	.192		
Cultivating								
1st. 6/7-9	29½	58½	10.24	1.72	3.44	.602		
" 2nd.								
6/16-17	24½	48½	8.49	1.43	2.86	.499	Ka Deere.	
" 3rd.								
6/22-30	15½	31	5.43	.91	1.82	.319	" "	
" 7/4-14	62½	62½	15.68	3.69	3.69	.922	1-Horse Har-	
Suptc. 7/5-8/16	2	-	.30	.11	-	.017	row.	
Filling								
Silo 8/17-18	40½	36½	9.66	2.37	2.13	.568	Part of field	
Cutting								put in silo.
Fodder 9/22-28	131	-	19.65	7.70	-	1.157		
Shucking								
Corn 11/23-12/13	119½	-	17.93	7.03	-	1.056		
Resetting								
Shocks 12/11	3	-	.45	.18	-	.026		
Hauling and								
Shredding 12/2-2/8	114	103	27.40	6.71	6.06	1.611		
Total Labor Cost		695	599	164.15	40.88	35.24	9.656	

(Continued)

FARM NO. 4.

Table 23.
(Concluded)

Year 1911-12.

Crop:- Corn. 17 Acres.

Field F 3.

	Total Cost	Per Acre Cost	Remarks.
Seed	5.00	.294	2½ bu. @ \$2.00
Equipment	28.96	1.704	
Fuel(Gasoline)	3.50	.206	1.2 Gal. per hr. @ 13¢.
Taxes	6.80	.400	
Interest (5%)	63.75	3.750	
TOTAL COST	\$272.16	\$16.010	

Y I E L D S .

876 Bu. Corn @ \$.60 -- \$525.60
 8 Tons Shredded Stover 40.00 (Amount Estimated)
Total \$565.60

S U M M A R Y .

	Total	Per Acre	Per Bu.
Cost	272.16	16.01	.311
Income	565.60	33.27	.645
GAIN	\$293.44	\$17.26	\$.334

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 24.

Year 1911-12. Crop:- Cow Peas. 3 Acres. Field F 3

Operation	Dates	Total			Per Acre		Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	
Plowing for 5/23-24	20 $\frac{1}{4}$	40 $\frac{1}{2}$	7.09	6.75	13.50	2.363	12In. Walking Plow.
Harrowing for 5/24	7	21	3.15	2.34	7.00	1.050	Spiketooth. Disc Harrow
Planting 5/25	5	10	1.75	1.67	3.33	.583	Disc Drill.
Cutting 10/16-17	3 $\frac{1}{4}$	6 $\frac{1}{2}$	1.14	1.08	2.17	.380	McCormick 5Ft.
Raking 10/24-26	1 $\frac{3}{4}$	3 $\frac{1}{2}$	.61	.58	1.17	.203	
Shocking 10/24-31	15 $\frac{3}{4}$	-	2.36	5.25	-	.787	
Turning 11/1-8	2 $\frac{1}{4}$	-	.34	.75	-	.113	
Hauling 11/1-9	21 $\frac{1}{4}$	13	4.49	7.08	4.33	1.497	
Total Labor Cost		76 $\frac{1}{2}$	94 $\frac{1}{2}$	20.93	25.50	31.50	6.976
Seed			11.25			3.750	1 $\frac{1}{2}$ Bu. per A. @ \$2.50.
Equipment			1.67			.557	
Taxes			1.20			.400	
Interest			11.25			3.750	
TOTAL COST			\$46.30			\$15.433	

YIELDS.

4 Tons Hay @ \$12.00 - - - - \$48.00

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	46.30	15.433	11.575
Income	48.00	16.000	12.000
GAIN	\$1.70	\$.567	\$.425

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 23.
(Supplement)

Year 1911-12. Crop:- Wheat. 17 Acres Field F 3.

Operation	Dates	Total		Per Acre		Remarks.
		Man hrs.	Horse hrs.	Man hrs.	Horse hrs.	Cost
Discing for 10/7-13	34 $\frac{1}{4}$	66 $\frac{1}{2}$	11.79	2.02	3.92	.694 Disc Harrow.
Harrowing for 10/11-13	22 $\frac{3}{4}$	45 $\frac{1}{2}$	7.96	1.34	2.67	.468 Spiketooth.
Drilling Wheat 10/11-14	23 $\frac{1}{4}$	44 $\frac{1}{2}$	7.79	1.31	2.62	.458 Disc Drill
Suptc. 10/12-13	2	-	.30	.11	-	.017
Making Water Furrows 10/14- 27	9	6	1.95	.53	.35	.115
Total	90 $\frac{1}{4}$	162 $\frac{1}{2}$	29.79	5.31	9.56	1.752

FARM NO. 4.

Table 24.
(Supplement)

Year 1911-12. Crop:- Wheat. 3 Acres Field F 3.

Discing for 10/26- 11/11	7 $\frac{1}{2}$	15	2.62	2.50	5.00	.875 Disc Harrow.
Harrowing 10/26-11/11	3 $\frac{1}{2}$	7	1.23	1.17	2.33	.410 Spiketooth.
Drilling 11/1-11	5 $\frac{3}{4}$	11 $\frac{1}{2}$	2.01	1.91	3.83	.670 Disc Drill.
Making Water Furrows 11/1	3	2	.65	1.00	.67	.217
Total	19 $\frac{3}{4}$	35 $\frac{1}{2}$	6.51	6.58	11.83	2.172

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 25.

Year 1911-12.

Crop:- Corn.

6 Acres.

Field G.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost
Burning							
Grass 5/6	3½	-		.53	.58	-	.088
Plowing for							
Corn 5/8-12	45½	91		15.92	7.58	15.16	2.653
Harrowing							
for 5/9-12	13¾	27½		4.81	2.29	4.58	.802
Planting 5/13	11¼	18		3.56	1.96	3.00	.594
Making Water							
Ditches 5/13-							
6/12	10¼	5½		2.09	1.71	.91	.348
Cultivating 1st.							
5/31-6/2	15	30		5.25	2.50	5.00	.875
Replanting							
6/4-5	12	-		1.80	2.00	-	.300
Cultivating 2nd.							
6/5-7	15	30		5.25	2.50	5.00	.875
" 3rd.							
6/12	11½	23		4.03	1.92	3.83	.672
" 4th. 6/16	13	26		4.55	2.17	4.33	.758
" 5th. 6/21	9½	19		3.32	1.58	3.16	.553
Thinning 6/24	4	-		.60	.67	-	.100
Putting in							
Silo 8/8-10	144	93¼		30.92	24.00	15.54	5.154
Total Labor							
Cost	308¾	363¼		82.63	51.46	60.51	13.772
Seed				2.00			.333 1Bu. @ \$2.00
Equipment				9.90			1.650
Fuel (Gasoline)				3.55			.592 1.2Gal. per hr. @ 13¢.
Taxes (½ Rate)				1.20			.200 2 Crops har-
Interest (")				11.25			1.875 vested on this
TOTAL COST				\$110.53			\$18.422 field this yr.

YIELDS.

48 Tons Silage @ \$3.25 - - \$156.00

SUMMARY.

	Total	Per Acre	Per Tons
Cost	110.53	18.422	2.303
Income	156.00	26.0000	3.250
GAIN	\$45.47	\$7.578	\$.947

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 26.

Year 1911-12. Crop:- Cow Peas. 6 Acres. Field G.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
Sowing	6/21	5	-	.75	.83	-	.125	Sown broad- cast before last cultivation
Cutting	10/14-16	7 $\frac{3}{4}$	15 $\frac{1}{2}$	2.71	1.29	2.59	.452	
Raking	10/19-24	3 $\frac{1}{4}$	6 $\frac{1}{2}$	1.14	.54	1.08	.190	
Shocking and Capping	10/20-25	23 $\frac{1}{2}$	3 $\frac{1}{2}$	3.87	3.92	.58	.645	
Turning	10/14-23	3	-	.45	.50	-	.075	
Hauling	10/19-11/4	16 $\frac{1}{4}$	18	4.24	2.71	3.00	.707	
Hulling	11/2-6	25 $\frac{1}{4}$	$\frac{1}{2}$	3.84	4.21	.08	.640	
Total Labor Cost		84	44	17.00	14.00	7.33	2.834	
Seed				15.00			2.500	1 Bu. per A.
Equipment				5.89			.982	
Fuel(Gasoline)				1.40			.233	
Taxes $\frac{1}{2}$ Charge				1.20			.200	Other half to corn preceeding.
Interest $\frac{1}{2}$ "				11.25			1.875	
TOTAL COST				51.74			8.624	

YIELDS.

8 Bu. Peas @ \$2.50 - - - \$20.00
 6 Loads Hay@ 8.00 - - - 48.00 (About 4 Tons)
 Total \$68.00

SUMMARY.

Cost	Total	Per Acre	Per Ton
	51.74	8.624	12.935
Income	68.00	14.667	17.000
GAIN	\$16.26	\$6.043	\$4.065

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 27.

Year 1911-12. Crop:- Corn. 10 Acres. Field H 1.

Operation	Dates	Total		Per Acre		Remarks.	
		Man hrs.	Horse hrs.	Cost	Man hrs.		Horse hrs.
Plowing for 4/24-5/11	94 $\frac{1}{4}$	177	31.84	9.42	17.70	3.184	12In. Walking Plow.
Harrowing for 5/6-17	35 $\frac{1}{4}$	68 $\frac{1}{2}$	12.14	3.53	6.85	1.214	
Planting 5/10-11	17 $\frac{3}{4}$	27 $\frac{1}{2}$	5.41	1.77	2.75	.541	
Making Water Furrows 5/10-6/3	11	6	2.25	1.10	.60	.225	
Replanting 5/23-6/3	21 $\frac{1}{2}$	-	3.22	2.15	-	.322	
Cultivating 1st. 5/24-6/3	26 $\frac{3}{4}$	53 $\frac{1}{2}$	9.36	2.68	5.35	.936	
Cultivating 2nd. 6/9-10	26 $\frac{1}{2}$	53	9.28	2.65	5.30	.928	
Cultivating 3rd. 6/21-22	17	34	5.95	1.70	3.40	.595	
Cultivating 4th. 7/3-8	38 $\frac{3}{4}$	37 $\frac{1}{4}$	9.53	3.87	3.72	.953	1 Horse Harrows
Thinning 6/24-26	9 $\frac{1}{2}$	-	1.42	.95	-	.142	*Peas Broadcasted and hogged out.
Cutting Corn 9/18-28	122 $\frac{1}{4}$	-	18.34	12.23	-	1.834	By Hand.
Planting Peas 6/21	4	1 $\frac{1}{2}$	.75	.40	.15	.075	*
Gathering Corn 10/27-12/1	24 $\frac{3}{4}$	16 $\frac{1}{2}$	5.36	2.47	1.65	.536	
Shucking Shocked Corn 11/6-23	149 $\frac{3}{4}$	-	22.46	14.98	-	2.246	
Hauling Corn from Shocks 11/10-23	34 $\frac{1}{4}$	44 $\frac{1}{2}$	9.59	3.42	4.45	.959	
Hauling Fodder 11/24-2/20	28	27	6.90	2.80	2.70	.690	
Resetting Shocks 12/13	1 $\frac{1}{2}$	-	.23	.15	-	.023	
Total Labor Cost	662 $\frac{3}{4}$	546 $\frac{1}{4}$	154.03	66.27	54.62	15.403	
Seed			2.50			.250	1 $\frac{1}{4}$ bu. seed @ \$2.
Equipment			3.78			.378	
Taxes			4.00			.400	
Interest			37.50			3.750	
TOTAL COST			\$201.81			\$20.181	

(Continued)

FARM NO. 4.

Table 27.

(Concluded).

YIELDS.

500 Bu. Corn @ \$.60 - - \$300.00

6 Tons Fodder(Estd)@2.00- 12.00

Total	\$312.00
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S U M M A R Y .

	Total	Per Acre	Per Bu.
Cost	201.81	20.181	.404
Income	<u>312.00</u>	<u>31.200</u>	<u>.624</u>
GAIN	\$110.19	\$11.019	\$.320

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 28.

Year 1911-12. Crop:- Wheat. 7 Acres. Field I 2-4.

Operation	Dates	Total		Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost
1910 Acct.		70	140	24.50	10.00	20.00	3.500
Suptc. 6/15		1	-	.15	.14	-	.021
Cutting 6/16-17		8 $\frac{3}{4}$	22 $\frac{3}{4}$	3.58	1.25	3.25	.511
Shocking 6/16-17		12 $\frac{3}{4}$	-	1.91	1.82	-	.273
Stacking 7/15-17		32 $\frac{1}{4}$	31	7.94	4.61	4.43	1.134
Thrashing 7/21							
-22		13	14 $\frac{1}{2}$	3.40	1.86	2.07	.486
Hauling 8/12-11/							
23		4	5 $\frac{1}{2}$	1.15	.57	.78	.164
Total Labor							
Cost		141 $\frac{3}{4}$	213 $\frac{3}{4}$	42.63	20.25	30.53	6.089
Seed				8.00		1.143	8 Bu. @ \$1.00
Equipment				2.60		.372	per Bu.
Thrashing				4.80		.686	
Taxes				2.80		.400	
Interest				26.25		3.750	
TOTAL COST				\$87.08		\$12.440	

YIELDS.

96 Bu. Wheat @ \$.90 - - \$86.40
 5 Tons Straw @ \$2.00 - - \$10.00

Total \$96.40

SUMMARY.

	Total	Per Acre	Per Bu.
Cost	87.08	12.44	.907
Income	96.40	13.77	1.004
GAIN	\$ 9.32	\$1.33	\$.097

Rates:- Man 15¢ Horse 10¢.

FARM NO. 4.

Table 29.

Year 1911-12. Crop:- Alfalfa. 3 Acres Field I 3.

Operation	Dates	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
1st. Crop.								
Clipping	6/5	5 $\frac{3}{4}$	11 $\frac{1}{2}$	2.01	1.92	3.83	.670	
Raking	6/7	1 $\frac{1}{4}$	3 $\frac{1}{2}$	.61	.58	1.16	.203	
Shocking and								
Capping	6/8	1 $\frac{1}{2}$	-	.22	.50	-	.075	
Hauling	6/8	3	3	.75	1.00	1.00	.250	1 A.hauled in.
Harrowing								
Ground	6/8-9	7	14	2.45	2.33	4.66	.817	World Beater.
Hauling off								
Weeds	6/9-8/4	12	21	3.90	4.00	7.00	1.300	
Total 1st.Crop		31	53	9.94	10.33	17.65	3.315	
2nd. Crop.								
Cutting	10/13	5	10	1.75	1.66	3.33	.583	
Raking	10/14	2 $\frac{1}{2}$	4 $\frac{1}{4}$	.80	.83	1.42	.267	
Shocking And								
Capping	10/14	3 $\frac{1}{2}$	-	.52	1.17	-	.173	
Hauling	10/14-23	3 $\frac{3}{4}$	3 $\frac{3}{4}$	.94	1.25	1.25	.313	
Total 2nd.Crop		14 $\frac{3}{4}$	18	4.01	4.91	6.00	1.336	
Total Labor								
Cost		45 $\frac{3}{4}$	71	13.95	15.24	23.65	4.651	
Seed(On 4yr.basis)				1.68			.560	15# per A.@ 15¢
Equipment				2.11			.704	Allowing 1 seed-
Taxes				1.20			.400	ing to stand 4
Interest				11.25			3.750	years.
TOTAL COST				\$30.19			\$10.065	

YIELDS.

1 $\frac{1}{2}$ Tons Hay @ \$15.00 - - - \$22.50
Only 1 A. of hay hauled in. Rest mostly weeds.

S U M M A R Y .

	Total	Per Acre	Per Ton
Cost	30.19	10.65	20.127
Income	22.50	7.50	15.000
LOSS	\$7.69	\$3.15	\$5.127

Rates:- Man 15¢. Horse 10¢.

FARM NO. 4.

Table 30.

Year 1911-12.

Manure Account.

Field	Acres	Total			Per Acre			Remarks.
		Man hrs.	Horse hrs.	Cost	Man hrs.	Horse hrs.	Cost	
1911 Crops								
E-1	30	90 $\frac{3}{4}$	133 $\frac{3}{4}$	26.98	3.33	4.46	.887	61 Loads.
F-1	15	67	71	17.15	4.47	4.73	1.143	40 "
F-2	3	21 $\frac{1}{4}$	22 $\frac{1}{2}$	5.44	7.07	7.50	1.813	15 "
1912 Crops.								
E-1	30	11	11	2.75	.37	.37	.092	Not yet reported
F-1	15	5 $\frac{1}{2}$	7 $\frac{1}{2}$	1.58	.36	.50	.105	5 Loads.
G.	6	84 $\frac{1}{4}$	79	20.54	14.04	13.17	3.423	52 "
Garden		4	4	1.00	-	-	-	Not yet reported
<hr/>								
TOTAL.		283 $\frac{3}{4}$	328 $\frac{3}{4}$	75.44	-	-	-	173 Loads.

Rates:- Man 15¢ Horse 10¢.

We have now an idea of just what kind of a farm each one is, also the Labor Summaries of those farms. The different cost factors used in these summaries, have also been considered. Now let us look at the individual summaries briefly, and see what each shows us. Then we will study them in a general way. As the first four tables of one farm are each like their corresponding number in the other farms, we will study them more by comparison. Consequently, table one will stand for all four number ones, etc.

Summary Tables No. I.

These show us two or three very interesting facts. They show the total man hours worked per month per man on the farm, then the average per work day, per man. We find these averages varying from 6.7 hours in one case, to 12.8, in another. These variations we would of course expect, from winter to summer. In addition, we have the variations in hours horse labor, per day, per horse, consumed on the farm. This figure is obtained on the basis that ~~all~~ work stock is available for the total number of work days in the month. This very point is quite often overlooked by men, when they consider the adequacy of their work stock. They will have a good team or two which do work fairly long days, for a good part of the month, but at the same time, there will be a number of work horses lying idle; merely kept for emergencies, or rush seasons. A certain amount of provision for emergencies is a good policy, but too little judgment is usually used in making this provision.

A study of the following table will bring out some interesting points. This table shows us that the men lost comparatively little time during the year. This table, like all those that follow, takes into consideration only the regular man and horse labor of the farms. It will be seen that farms one and two show comparatively little Sunday work, while three and four show decidedly more. This is typical of the two types of farm: one and two, general farms; three, dairy on a small scale; four, primarily a dairy farm. The very much larger time (over 70, pg 107)

LABOR PER DAY
Throughout the year.

MAN LABOR.

Table 1.

From Summary Table 1.

Farm No.	Total Work Days	Per cent Worked	Total Sundays	Per Cent Worked	Av.Hrs. Per Man Per wk.da.	Av.Hrs. Per Man Per Sunday.
1	221	98.6	39	100.0	10.00	2.0
2	307	97.7	52	96.1	10.5	2.0
3	257	99.6	40	98.5	12.4	5.5
4	313	96.2	52	100.0	9.4	3.8

HORSE LABOR.

Table 2.

From Summary Table 1.

Farm No.	Total Work Days	Per Cent Worked	Total Sundays	Per Cent Worked	Av.Hrs. PerHorse Per wk.da.	Av.Hrs. Per Horse Per Sunday.
1	221	94.1	38	29	4.1	.520
2	307	75.0	52	38.5	3.1	.126
3	257	90.0	40	70	4.1	.900
4	313	100.0	52	94.2	4.8	.663

NOTE: An interesting point in connection with farm four, is that the workstock was largely Geldings, considered by many as undesirable in the make up of work stock equipment on a farm.

per Sunday on farm three as compared with farm four, is due to the fact that while farm four carried more than twice as many cows, it was conveniently equipped, while number three was exceedingly poorly equipped. When we look at Horse Labor Table, another fact or two appears. Note the fact that farm four used its horses every week day in the year, while the others fluctuate from 94% down to 75%. Note also the effect on the average hours per day the horses work. Attention is called to the horse labor of farm 2. While, as will be remembered from a former reference, the work stock equipment of this farm seemed almost ideal, yet here we find that it did not work as many hours per day, as the workstock on the other farms. This was partly due to the fact that not much work was provided for the workstock except in the cropping season (Table 1, Farm 2) and partly to the fact that the two draft mares were laid off as much as possible early in the season, through foaling time.

Tables No. 2, Summary.

These tables show us the labor costs of the different enterprises on the farm, and how the labor is proportioned to the various enterprises. A study of the following tables will give a better idea perhaps, of the different proportions. Table 3 shows the relative amounts of man labor devoted to some of the more important farm operations. Take, for instance, the time devoted to cows. On farms one and two this amount is relatively small while on three and four, it is more than one fourth of the total labor put in on the farm. Note the amounts of time put in on the various farms in Improvements. The large amount on farm two was due to a great deal of building on this farm this year. On Farm three the Improvement work was allowed to count toward paying the rent, and quite a proportion of the rent was worked out in this way. Notice also that farm three has a larger per cent of

LABOR DISTRIBUTION.
Per Enterprise.

Tables 3.

From Summary Table 2 .

Per Cent Man Hours .

Account	Farm 1	Farm 2	Farm 3	Farm 4
Horses	7.02	11.00	7.76	7.20
Cows	5.56	4.97	25.37	27.79
Milk	-	-	14.03	9.68
Hogs	6.16	3.84	2.21	3.47
Sheep	3.74	.82	-	-
House Hold	4.95	2.28	2.98	8.12
Equipment	4.57	1.89	2.78	1.93
Improvement	9.68	39.00	12.79	4.32
Personal	-	-	.09	-
Personal (Sons)	-	-	-	12.47
Total Mis-				
cellaneous	65.5	69.5	75.2	69.6
Total				
Field	34.5	30.5	24.8	30.4

LABOR DISTRIBUTION.
Per Enterprise.

Table 4. Per Cent Horse Hours. From Summary Table 2.

Account	Farm 1.	Farm 2.	Farm 3.	Farm 4.
Horses	1.06	.60	.36	.63
Cows	.17	.33	11.96	1.82
Milk	-	-	11.88	10.04
Hogs	4.85	.76	.65	.55
Sheep	1.05	.65	-	-
House Hold	2.91	3.92	1.87	1.83
Equipment	3.06	1.08	1.76	.81
Improvement	4.80	14.77	5.19	1.53
Personal	12.23	1.23	2.57	2.65
Personal(Sons)	-	-	-	12.47
<hr/>				
Total Miscellaneous	48.	31.4	45.6	38.2
<hr/>				
Total Field	52.	68.6	54.4	61.8

LABOR DISTRIBUTION.
PER ENTERPRISE.

Table 5. Per Cent Total Cost. From Summary Table 2.

Account	Farm 1.	Farm 2.	Farm 3.	Farm 4.
Horses	4.50	7.36	5.16	5.25
Cows	3.29	3.34	20.60	20.07
Milk	-	-	13.22	9.72
Hogs	5.60	2.76	1.66	2.60
Sheep	2.61	.76	-	-
House Hold	4.09	2.86	2.59	6.23
Equipment	3.92	1.61	2.42	1.60
Improvement	7.60	30.60	10.10	3.48
Personal	5.13	.43	.96	.77
Personal (Sons)	-	-	-	3.62
Total Miscellaneous	58.00	56.3	64.8	60.
Total Field	42.00	43.7	35.2	40.

its labor as Miscellaneous, Farms two and four next, with approximately the same per cent, and farm one, the lowest. Later we will study the proportions of this labor from a slightly different view point. Now let us look at table (4).

Table (4) gives us the same information with regard to horse labor, as the previous tables gave for man labor. Note especially how the proportion of field labor to miscellaneous, is just the opposite of that for man labor.

Table(5) gives us the proportionate cost for the year, of the different, more important accounts given in SUMMARY Tables two. Notice that the total cost on the four farms of Miscellaneous labor, ranges between 56.3 on farm two, and 64.8 on farm three. This means that on these farms a pretty definite relation exists between Field and Miscellaneous labor. Notice again how very similar the proportions are, which the expenses of the dairy cows hold to the gross expenses of the farm, for farms three and four. Also, speaking in terms of totals, the expenses of caring for and marketing milk on farm three, was about fifty per cent more than on farm four, notwithstanding the fact that farm four had twice the number of cows. This is due to the fact that the milk from farm three was hauled nine miles, a great part of the time, and retailed, while farm four had only half that distance to go, and sold their product as cream. A comparison is given in the following table(6) of the labor cost per cow, per day, on these farms.

This table shows, first, a comparison between the different farms, of the labor cost of keeping workstock. It should be said here with reference to farm four, that the number of horses is higher than before given, because the number includes driving horses

LABOR COST OF KEEPING

WORK STOCK AND COWS.

Per head - Per Day.

Table 6.

From Summary Table 2.

Farm	Work stock				Cows.			
	No.	Man hrs.	Horse hrs.	Cost	No.	Man hrs.	Horse hrs.	Cost
1	5	.228	.003	\$.038	2	.453	.016	\$.069
2	6	.370	.002	.057	1	1.010	.054	.156
3	6	.268	.001	.041	7	.752	.288	.142
4	*10	.360	.001	.056	19	.732	.003	.113

WORK STOCK AND MACHINERY

Distribution.

Table 6 A.

Farm	Acres per head		A. per \$100. Worth	
	Work Stock		of Equipment.	
	Whole Farm	Harvested Crops	Whole Farm	Harvested Crops
1	20.60	14.74	20.00	14.31
2	26.66	17.98	31.35	21.13
3	26.66	14.66	80.00	44.00
4	42.86	19.79	11.32	5.23
Average:	30.10	17.00	18.66	10.54

* Only seven of these were regular work horses.

mentioned in the history and description of the farm. Farms 1, 2, and 3, run about as expected, however. The mares on farm two did require considerably more time than horses in general will, thus accounting for the higher cost here. But we might say in general that the cost on these farms per work horse per day, would be a little less than five cents.

The data relative to the labor cost of keep of cows per head per day gives us some interesting facts. Farm one and two were just keeping cows for supplying home needs, and this table shows us what we would have to add to feed and interest charge per day to determine what the milk produced on these farms actually costs. The last two farms show what it cost the men in labor for producing milk or cream to sell. These figures mean that it cost something more than a half a gallon of whole milk, or approximately one third of a pound of butter fat to take care of each cow per day. A more interesting figure than this, however, is the difference in cost between farms three and four. It will be remembered from the labor classification given in a previous chapter, that all work on cows, to the time the milk is placed in the milk room, is charged to cows. You will also recall the fact as previously stated, that on farm three, because of poor equipment, it was necessary to go one fourth mile from the house each day to milk and then bring the milk back to the house to separate it. Farm four was conveniently arranged for such work. The cost comparison in the above table means that the operator of farm three, when compared with the one on farm four, was paying 3.1 cents per cow per day for the privilege of going a quarter of a mile twice each day to milk.

But to go to the last of table two of the Summaries, we find one more striking comparison that we can make. This is relative to the

labor cost of operating these farms. Tables seven and eight show these things in a striking way. More work by far was put in per acre on farm four than on any one of the others. A reference to the next table, number nine, will also show that after paying for this excess labor, the income per acre of harvested crops was also about one third more than the income of the best of the other three. We must also remember that these figures for farm four are for the year 1911, while all the rest are for 1910, thus placing farm four at a decided disadvantage, from the standpoint of season. We will also see by a last glance at Summary tables, number two, that farm four after paying interest, depreciation, and a labor wage of nearly two thousand dollars, realized for the operators nearly three times as much net profit as the next best farm, when we make no allowance for the bad season of 1911. Were we to make allowance for this factor, the difference would be even more evident.

Summary Tables 3 and 4.

These tables are nothing more than brief statements of receipts, expenses, and profit and loss, for the different crops. The following table is a comparison of the four farms from the standpoint of profits. The column giving areas in harvested crops does not mean that this is the extent of tillable ground on the farm. In the case of farm one, this area includes some wet land that could not well be plowed, but from which good hay was harvested. Farm two has more than 107.9 acres of tillable land, but at that time only that acreage was used from which to harvest crops, the rest being in pasture. The same may be said of farm three. It is very level, and more than this acre-

COST PER ACRE OF
MAN LABOR.

Table 7.

From Summary Table 2.

Farm	Total hours	Total Acres	Acres in Harvested Crops	Cost Per A. of Whole Farm		Cost Per A. of harvested Crops.	
				Hours	Cost	Hours	Cost
1	4241 $\frac{3}{4}$	103	73.7	41.18	6.177	57.82	7.673
2	7254 $\frac{1}{2}$	160	107.9	45.31	6.796	67.23	10.084
3	6167	160	88.0	38.54	5.781	70.07	10.510
4	18263 $\frac{1}{4}$	300	138.5	60.877	9.131	131.86	19.779

HORSE LABOR.

Table 8.

From Summary Table 2.

Farm	Total hours	Total Acres	Acres in Harvested Crops	Cost Per A. of Whole Farm		Cost Per A. of Harvested Crops	
				Hours	Cost	Hours	Cost
1	4630	103	73.7	44.95	4.495	62.82	6.282
2	5854 $\frac{1}{2}$	160	107.9	36.52	3.652	44.99	4.499
3	4992	160	88.0	31.20	3.120	56.72	5.672
4	10925 $\frac{3}{4}$	300	138.5	36.41	3.641	78.88	7.888

PROFITS PER ACRE.

Table 9.

From Summary Tables 3-4.

Farm	Total Area	Area in Harvested Crops.	Per. Cent of Area in harvested crops	Gain Per A. Whole Farm.	Gain Per A. in Harvested Crops	Total Gain On Crops.
1	103 A.	73.7	71.55	\$2.329	\$3.256	\$239.99
2	¹⁶⁰ 106 A.	107.9	67.44	1.184	2.088	225.35
3	160 A.	88.0	55.00	-.977	0.536	-85.87
4	300 A.	138.5	46.17	2.049	4.439	614.74

age could be cultivated, but it was undesirable to do this because of the extremely poor condition of the soil. With reference to farm four, it will be seen that the Area in Harvested crops does not compare with the total acres on tables three and four, for the reason that more than one crop was produced from the same acre in several cases. But the 138.5 acres does not then represent all possible tillable land. There are several pastures that could be cultivated, but these are not included.

It will be seen that for profits per acre of crops, farm four stands first, while for profits per acre of whole farm, number one leads. These factors are both of importance, but the essential one is the Profit per Farm, and in this, number four has decidedly the advantage.

We will now devote a brief space to explaining the extraordinary features connected with the different crops, features which would not otherwise be understood.

FARM I.

Table 5.

This was the first crop for this field, and was cut for seed but difficulty in obtaining a clover huller, and rains late in the winter caused nearly a total loss of this first crop.

Table 6.

This was an excellent field of rape. The Proprietor had no means of weighing the hogs regularly; also, they were fed part corn along with the rape, so in order to figure any returns for the rape, the basis indicated was used.

Table 7.

The cowpeas in this field made an exceptionally heavy growth. The yield of pea hay was estimated, the entire growth being pastured out with sheep.

Table 8.

The peas did not make a very good growth in this field, consequently they are not considered in the returns from the field.

Table 9.

The peas in this field were hand planted, and the harvesting charge is not complete, because a considerable part of this crop was hogged off.

Table 10.

This crop grew on land that could not conveniently be cultivated, some of it being rough and some very wet. Only alsike clover grew on a part of it. These facts will explain in part the small yield.

Table 11.

This field was first sown to oats and a fifty bushel yield thrashed from it. As soon as the oats were cut, cowpeas were sown broadcast on the field and in the fall plowed under as green manure.

Table 12. This field gave as fine a growth of soy beans as will usually be seen, but the creek came out of its banks and destroyed the major part of the crop.

Table 13.

For this field the same might be said as for the soy beans, except the fact that the water only got about half the cowpeas.

Table 14.

This field was planted to corn and cowpeas, but about time to cultivate, the creek covered the field and nothing more was done

with it that year.

Table 15.

This was the first year for this crop, and as a result only the first cutting was considered good enough for hay.

When we consider that three of the most valuable crops on this farm were lost because of weather conditions, we can understand in a great measure the smallness of the profits of this farm.

FARM II.

Table 5.

It should be remembered that this farm was run down, and this accounts for the small yield of oats. They were used to get the field seeded down.

Table 6.

This record is not worth much for details, because the harvesting was all reported as one operation, but the cost per acre is very representative.

Table 7.

This field gave very poor returns because of the condition of the soil. The cost data was reported in excellent shape, however. The cowpeas made very little growth.

Table 8.

This crop did exceptionally well for the soil. It will readily be seen that the greatest cost factor here is the stacking, which took a great deal of time. It will be observed later, however, that this is a very low cost.

Table 9.

This table shows the same results as did table 8; that is,

that the largest cost factor in connection with such a crop is the stacking. This cost of production will also be found pretty low.

Table 10.

The reason this crop cost ran up so high, is seen in two items;- pulling weeds, and stacking. The foulness of the farm was responsible for a part of this. The yields from the last three crops were all estimated, it being impossible to obtain weights on these.

This farm did not experience such disastrous results from weather conditions, but the poorer condition of the soil caused this farm to fall slightly below number one in profits from field crops.

FARM III

Table 5.

This is a record of a hard and thorough effort to get a profitable crop of corn where such a crop will not grow. The cost of producing is not extraordinary, and yet the yields will not compensate.

Table 6.

This is a repetition of the story of the previous field. No matter how thorough the effort, corn would not grow in a profitable quantity.

Table 7.

This happens to be one of the three reasonably profitable crops grown on this farm. But we know that such a crop will not add anything in the way of improvement to the soil.

Table 8.

This was a pasture crop and the value placed on it is only an estimate.

Table 9.

This field record is a good one for cost data, but the returns are too nearly like those of previous fields to show any profits.

Table 10.

An experimental corn-breeding plot, and without any returns.

Table 11.

This field yielded about a half ton the first cutting, while the second was almost all weeds.

Table 12.

A small crop of corn showing a large loss.

Table 13.

This is the second crop of this farm which has shown a gain. The beans were picked and cleaned by hand, thus making the labor cost rather large.

Table 14.

Though small, the soy bean field realized a gain. This is the third profitable crop on this farm, for the year.

FARM IV.

It must be remembered in the study of the tables of farm four that the farm is a Missouri river hill farm. This means that the hills are so steep that a ditching machine is used to prevent washing. Also it is impractical to use gang plows or even sulkies on this hill ground. It will be noticed that all plowing is done with a twelve inch walking plow. This makes the cost of plowing exceptionally high. Also all discing and harrowing is done with two-horse implements. Some of these might be replaced by larger ones with profit, but we are not yet just ready to say to what extent this change should be made. An-

other thing to remember is that this Loess soil is probably less affected by dry weather than other types. At least, this is the indication from the crop results obtained last year. These facts must be remembered in the study of the tables of the farm.

Table 5.

A part of the first crop was cut early for cow feed, then the first crop of six tons, harvested. The second crop was cut for seed, and hauled to a neighbors, to thrash. The field was then plowed up and sown to wheat(Supplement, table 5.).

Table 6.

This crop was treated in the same way as the preceding, excepting that only three acres of the crop were harvested. The rest was very thin, owing to the dry weather, it being on much higher ground than the first field. This field was plowed and sown to wheat.

Table 7.

One crop of clover, then plowed for wheat, is the manner in which this field was treated.

Tables 8 and 9.

A short crop of clover and then a crop of cowpeas on this field succeeded in leaving the soil in splendid shape, and the loss on peas would have been turned to gain, but for the very dry weather.

Table 10.

This field, which ordinarily yields twelve tons of hay, was brought down to four by the dry weather.

Table 11.

Canada peas have been grown for several years with success, on this farm. This year some oats were sown with the m peas, only to make it harder for them in dry weather. This field grew first, Canada field peas and oats, then cowpeas, (next table).

Table 12.

This is the reason for the half charge of interest and taxes to the one crop in each case. The cowpeas were pastured off in the fall.

Table 13.

Six acres of field C-1 were sown to oats, followed by rye. These oats were fed in the sheaf, so the value placed on them is only an estimate.

Table 14.

Field E-1 is a good illustration of how oats may be produced at a profit, with only moderate yields, when the price is as good as it has been the past season. This ground, together with the other crop areas of E-1 was sown to rye in the fall. (Supplements 14-15-16).

Table 15.

Nine acres of E-1 produced a profitable crop of rye, this year, and was again sown to rye. (Supplements 14-15-16).

Table 16.

This field kept barely within the limits when it came to profits. It will be observed that a part of this crop was cut early for feed, thus leaving a slightly smaller amount to harvest.

Table 17.

A small field of rye with too small a yield to pay the cost of producing. This field was plowed after harvest and sown to wheat. (Supplement 17).

Table 18.

This crop was very similar to the one just mentioned. This field was also sown to wheat after the rye was removed. (Supplement 18).

Table 19.

This is a second field of oats that proved profitable in a

bad season, and with a small yield. This field, together with the remainder of F-1, was sown to wheat in the fall. (Supplement 19-20).

Table 20.

Field F-1 produced twelve acres of corn which were profitably turned into silage for the dairy cows. Especial attention is called to the intense cultivation which this crop as well as the rest of the corn grown that year, received. The yields in corn were conservatively estimated at fifty bushels per acre.

Table 21.

One acre of the soy beans which yielded very well, considering the season. But the labor cost was too large to allow a profit when other costs were considered.

Table 22.

One acre of the soy bean field planted to cowpeas, principally for seed. The peas were hulled with the corn shredder, the straw being blown into the hay mow for cow feed.

Table 23.

This was the most profitable field crop produced on the farm that year. Note once more the thorough cultivation of the crop.

Table 24.

Cowpeas on this field did not lose money this year, but they made little. The seed charge against all the pea crops on this farm are pretty heavy, but were made only large enough to pay for the seed used. This field together with the corn crop mentioned under (Table 23) were sown to wheat after the crops were cut off (Supplements 23-24).

Table 25.

This crop, in connection with the previously mentioned crops of corn, make it easy to understand why a fair profit was made on the whole crop enterprise, despite the dry season. Cowpeas were sown

broadcast in this field, just before the last cultivation, and when the corn was cut from over them, they came on and brought results as shown in table(26).The binder did not damage the peas much. They made their best growth after the corn was put in the silo.

Table 27.

This field also proved profitable. The cowpeas were broadcasted in the corn and hogged out. They ate the peas, without eating much corn.

Table 28.

This was the only wheat crop on the farm that year, and proved fairly profitable.

Table 29.

The first year for alfalfa doesn't usually prove very profitable. One acre of the field was pretty good hay. The remainder was mostly weeds, and hauled off the field. The second crop was light, because of dry weather.

Table 30.

The manure produced and utilized on this farm is no small factor. The amount hauled to the different fields are here shown.

V

DISCUSSION OF CROP RECORDS.

(From Summary Tables 5, etc.)

Now that we have reviewed briefly each crop record, let us see if there is not some information in them that is valuable. First we will consider the costs of the individual operations on the several farms. In studying the operations we should bear in mind that these hour charges are not just the time the team was maving in the field but all other labor chargeable to that operation, like superintendence, regulating implement, etc. In other words, these costs are just what were actually incurred by the farms in the cases given. Also it is well to state that in the tables which follow, not all of the data given in the summaries is used, because, when a table is made for a certain purpose, the information on some fields may not be complete enough on that particular point, to make it usable. For instance, in figures showing a comparison of cost of preparing and planting, cultivating, and harvesting, a crop; if part of the crop is pastured off, this throws out that field-data. Thus we will not find all crops of a certain kind included in some of the tables. Attention is also called to the fact that in all cases the acres used in the computation are given, and where applicable, the number of operations are also given. The results are all based on the single operation unless otherwise stated.

Table 10.

This shows the costs of plowing on the different farms and with different implements. None of these figures should be accepted as authority, for the reason that they include but one farm in each case. Our purpose is, however, to give the comparative costs on the

OPERATION COSTS.

Per Acre.

From Summary Tables 5, etc.

Table 10.

Plowing.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement.
1	20	2	4.22	11.94	1.825	14 In. Sulky
1	2.5	1	3.00	6.00	1.050	" "Walking Plow
2	42.2	2	5.25	15.55	2.330	" "Sulky
3	37.0	6	4.95	15.25	2.270	" "Walking Plow
3	8.0	1	5.03	10.45	1.800	12 " "
4	146.5	20	6.48	12.78	2.250	" " "
Total: 256.2 32 Average:			5.80	13.38	2.21	

Table 11.

Discing.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement
1	73.6	8	.583	2.255	.313	14 D.
2	114.0	6	.773	3.055	.423	16 D.
3	152.0	11	.760	2.370	.351	12 D.
4	175.0	27	1.252	2.620	.450	8 D.
Total: 514.6 52 Average:			1.103	2.591	.395	

four farms. Notice that farm four plowed nearly one hundred fifty acres, all with a twelve inch walking plow. As has been before stated, the roughness of the ground was such as to apparently preclude the use of gang plows. And yet the cost of plowing in this case was less than on farm two with a sixteen inch sulky, mainly because on farm two, too little work was done in a day, and much more horse labor per acre was consumed. It seems as if farm four could profitably increase the width of its plows to fourteen inches. It is true that a fourteen inch plow is much heavier to handle, but no more horse power would be required to operate it. Farm two should substitute gang plows for the sulky, and walking plow; which has since been done.

Table 11.

The cost of discing is shown in this table. From these results, we would conclude that on these farms a fourteen disc harrow is the most economical, with an eight disc harrow as the most expensive. The same objection is made with reference to large discs, that was made for all other large machines on farm four. We do not think that this objection is a good one, however, with regard to disc harrows; an intimate acquaintance with the fields leads us to think that a twelve or fourteen disc harrow could be much more profitably used. The average cost of discing from fifty-two different operations, and covering 514.6 acres was .395, based on the fifteen and ten cent rates for man and horse labor, respectively.

Table 12.

This table gives us the cost of harrowing with a spike tooth harrow on these farms. We find the cost varying from twenty-one and a half cents in one case, to nearly thirty cents in the other. The reason for the lower cost on farm four is due to the fact that they used only two horses on the harrow, and covered practically the same ground

Table 12.

Harrowing.

Farm	Acres	No. of Operations.	Man Hrs.	Horse Hrs.	Cost	Implement
1	30.3	8	.487	1.584	.232	60 Tooth Lever
2	96.6	3	.628	1.459	.240	" " "
3	112.0	5	.730	1.792	.296	" " "
4	268.5	31	.617	1.225	.215	" " "
Total: 507.4		47	Average: .636	1.435	.239	

Table 13.

Planting Corn.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement.
1	10.6	3	2.12	4.240	.742	Deere
2	38.0	1	1.25	2.135	.401	Black Hawk
3	51.0	4	1.07	2.130	.374	" "
4	45.0	4	1.41	2.100	.422	" "
Total: 144.6		12	Average: 1.30	2.27	.423	

that the others did with from two to four horses at different times. Also, the figure for farm four covers more acres and more operations than all the rest, so should be more nearly an average for that farm. The high cost in the case of farm three was due in a large measure to the poor quality of the teams used. It took too long to cover an acre of ground.

Table 13.

The cost of planting corn, in this table, was affected by one factor in particular. This was in cases one and four. On farm one the fields were so small as to take a great deal of time in checking. On farm four, the rows were also pretty short, about forty rods. Such circumstances affect very materially the time required per acre.

Table 14.

This gives the cost per operation, of cultivating corn on these farms. It will be seen that this item is very nearly the same for all four farms. It will be seen later, however, that the cost per operation was about the same for all farms, yet the cost of tending an acre on one farm was greater than on the others, because of the number of cultivations.

Table 15.

The results in this table were not averaged, because of the varied ways of harvesting the crop. On farm one, for instance, there appears a very high charge for husking, due to the fact that a great deal of seed-corn was selected from this field before harvesting time. Farm number two was all husked, so that this charge should be representative of the operation for this farm. The yield was however, low, and this would influence more or less the time required to harvest. On farm number three the note shows that the method of harvesting

Table 14. Cultivating Corn, Per Operation.

Farm	Acres	No. of Fields.	Man Hrs.	Horse Hrs.	Cost
1	25.5	3	2.06	3.75	.685
2	38.0	1	1.73	3.46	.606
3	33.0	3	2.09	3.34	.648
4	45.0	4	2.00	3.47	.646
Total: 141.5		11	Aver.: 1.97	3.495	.646

Table 15. Harvesting Corn.

666

Farm	Acres	No. of Fields	Man Hrs.	Horse Hrs.	Cost	Implement
1	4	1	7.375	14.75	2.580	Husked
2	38	1	6.400	6.330	1.593	"
3	24	1	3.150	4.21	.893	Part gathered, part cut as fodder.
4	45	4	27.12	11.60	5.228	Practically all shredded, or silod.

Note:— The cost per acre figure for farm four represents very nearly the labor cost on this farm of putting corn in the silo. The average cost per acre on this farm of putting corn in the silo, from two fields used exclusively for this purpose, was \$5.409.

was not the same for the whole field. Also, the yield was so small, as to cut down very much the time required to harvest. On farm four, the method of harvesting varied from husking a small plot, to cutting, shocking, shucking, shredding, binding, and finally putting in silo. The whole operation would very nearly equal straight shredding, or putting in silo. About ten acres of corn was cut by hand.

Table 16.

It will be noticed that different implements were used for planting small grain also, so no average could mean anything. The figures for farms two and four are fairly similar, The large difference being that farm number two used four horses on the drill, while farm four used only two. It required a little longer on farm four than on farm two, but not enough longer to counterbalance the effect that the smaller number of horses gave to the results.

Table 17.

The figures shown in this table are very well compared. The greater cost of cutting grain on farm four could easily be due to the greater roughness of the land. The oats on farm one were on a very level piece of bottom, so roughness could not affect it. However, the ground was very wet and the oats heavy(fifty bushels per acre)which might explain the difference between this farm and number three.

Table 18.

Two of the farms gave good figures for this table(three and four). The figure given from farm one seems to be very much too low.

Table 19.

The greater cost of stacking grain on farm two, as compared to farm four, was partly due to the fact that only two men worked, thus lowering their efficiency materially. The tables seem to indicate that the labor on farm two is not as well handled as on the others, from the fact that more time is usually required to perform a

Table 16. DRILLING: Wheat, Oats, Rye.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement
2	12	1	1.780	7.16	.983	D. Drill
3	24	1	.375	.75	.131	Endgate Seeder.
4	75.5	13	2.170	4.06	.732	D. Drill

Table 17. Cutting Grain.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement
1	6	1	1.21	3.63	.543	8 Ft. McCormick.
3	24	1	1.02	2.81	.435	" " "
4	45.5	7	1.44	3.83	.598	" " "
Total:	75.5	9 Average:	1.29	3.48	.541	

Table 18. SHOCKING: Wheat, Oats, Rye.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost
1	6	1	.50	-	.075
3	24	1	1.35	-	.203
4	51.5	7	1.51	-	.224

given piece of work, than that taken for the same kind of work on any of the other farms.

Table 20.

In table twenty, we find the differences in cost of drilling cow peas and soy beans resulting from two methods practiced on these farms. Notice the comparison in cost per acre of using a disc drill, between farms two and four. Observe that it is even more marked than it was in the case of wheat(table 16). Also, compare the cost of drilling peas with a corn planter, to that of planting corn. You will notice that it runs approximately sixteen cents higher. This is largely due to the fact that the rows are usually put much closer together in the case of cowpeas, thus making more on an acre,^{and consequently} thus making more time necessary for drilling. This fact, however, would be in part made up, by not having to bother with the check wire.

Table 21.

Here we have some figures of an operation that can easily be an expensive one. For instance, in farm one, the peas and beans were cut with an ordinary mower, and not wishing to drive over them, the mower was stopped till the peas could be thrown aside, for the next swath. This explains the expensiveness. Again, the peas are often so vining, that they drag on the sickle-bar, causing much delay. Where a side delivery rake is used, much of this trouble is avoided. Not much trouble was experienced on farms two and four in cutting, because on farm two, the ground was not capable of producing a large growth, and for farm four, the season was so dry as to prevent a large growth. The figures for farm four include one small field of canada field peas.

Table 22.

The cost of producing cowpeas and soy beans is heavy,

Table 19.

STACKING GRAIN.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost.
2	29.30	1	3.75	3.80	.943
4	30.5	5	3.30	2.89	.784
Total	59.8	6 Average:	3.52	3.36	.865

Table 20.

DRILLING , Cowpeas, Soy Beans.

Farm	Acres	No. of Operation	Man Hrs.	Horse Hrs.	Cost	Implement.
1	6.5	2	1.61	3.23	.565	Deere Corn Planter
2	4.2	1	2.38	9.52	1.310	Disc Drill
2	9.0	1	1.45	2.34	.450	Corn Planter
3	1.0	1	1.50	3.00	.525	Deere Corn Planter
4	15.0	3	2.00	2.97	.597	Disc Drill 8 Hole

Table 21.

MOWING: Soy Beans, Cow Peas, Canada peas.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement
1	6.5	2	5.18	9.68	1.74	Deering 5Ft.
2	14.2	3	1.09	2.18	.382	McCormick 5Ft.
4	26.0	6	1.335	2.674	.467	" " "

largely because of the expensive way of stacking them. These figures are from operations where the stack is built by the use of poles, and this takes much time. Farm four got around this expense by using canvas shock covers, and thus were able to let the peas and beans cure in the shock. These covers cost less than twenty cents apiece, and should last about six years. So, when they are used on two or three different crops each year, the cost of using them is small indeed. For the reason that farm four made this arrangement, it does not appear in this table.

Table 23.

In this table appears data from only three farms. Farm two had a field of timothy, but the work on this field was reported in such a way, that the operations could not be separated. Farms one and three run nearly together with farm four very much higher. The only reason we can see for this, is the fact that all the hay-ground on farm four was very rough, and the fields small and irregular in shapes. A glance back to table three, Summary four, will show the size of the fields.

Table 24.

The cost of raking hay with a sulky rake is here shown. Farms one, three, and four, are fairly close together, with two much higher. If the cost figures were worked out on the per foot width basis, it would reduce the cost on number four to 16.5 cents, thus making it almost where one and three are. This means that it cost number four 1.83 cents per acre to use a nine-foot rake in preference to a ten-foot one. Farm number two maintains its place in this table as the highest in cost.

This closes the work on individual operations, and we now

Table 22.

STACKING: Cow Peas, Soy Beans.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost.
1	6.5	2	28.00	27.45	6.950
2	14.2	3	9.72	9.30	2.388

Table 23.

MOWING: Timothy, Clover, Alfalfa.

Farm	Acres	No. of Operations.	Man Hrs.	Horse Hrs.	Cost	Implement
1	33.5	5	.873	1.73	.303	5Ft. Deering
3	22.0	2	.841	1.68	.294	" " OsBorn
4	53.0	9	1.452	2.83	.500	" "McCORMICK
Total: 108.5		16 Aver.:	1.148	2.26	.397	

Table 24.

RAKING.

Farm	Acres	No. of Operations	Man Hrs.	Horse Hrs.	Cost	Implement.
1	35.4	5	.424	.890	.153	10 Ft. Rake.
2	14.2	3	.820	1.620	.283	" " "
3	22.0	2	.409	.545	.116	" " "
4	63.0	12	.532	1.037	.183	9 " "
Total: 134.6		22 Average:	.512	.975	.174	

take up a study of the labor cost of producing a few of the farm crops; together with a brief comparison of the profits per farm of the crops. The labor cost of production merely means the cost of the hours labor consumed in getting the crop into the cribs and bins, or to the market. This cost charge, you will find, corresponds exactly with the labor charge made in the Summaries. When we compare labor cost and profits we get an idea of which farm was the most successful, in spending its labor. By profits is meant, in these tables the excess of receipts over expenses. In expenses, we include labor, taxes, depreciation, seed, fertilizer, fuel, thrashing, and special charges on some crops. Now let us look at comparisons.

Table 25.

This table shows us that with a certain expenditure of labor, each farm came out a certain way. The farms rank; three, two, one, and four, going from minimum to maximum, in labor expended per acre: on the other hand, they rank four, one, two, three, or just opposite, in profits. While we cannot say from the profit each received that he was of a certain rank, because there are too many other factors entering in, over which he has no control; yet within certain limits we can grade the men as producers of the particular crop under discussion. Disregarding season and soil, we would say that number two was less unsuccessful than number three, and that number one was more successful than number four. But when we consider that number two had much better land than number three, and number one had a very much better season than number four, then we could not justly stand behind the ranking made. All we can say, is that number one made nearly one hundred per cent, number four about seventy five per cent, number two lost almost twenty two per cent, and number three lost nearly twenty seven per cent. On the per acre basis, farm one leads,

LABOR COST OF PRODUCTION

PER ACRE.

Table 25.

Corn.

Farm	Acres	No. of Fields	Man Hrs.	Horse Hrs.	Cost	Profit
1	28.3	4	25.07	43.35	8.09	7.930
2	38.0	1	22.08	44.83	7.80	-1.745
3	33.0	3	20.90	43.20	7.46	-2.085
4	45.0	4	50.90	50.85	12.72	9.045

Table 26

OATS.

Farm	Acres	No. of Fields.	Man Hrs.	Horse Hrs.	Cost	Profit
1	6	1	12.21	22.29	3.910	*21.68
2	29.3	1	14.46	23.29	4.498	.590
3	24	1	8.49	16.42	2.916	-3.806
4	26	3	12.31	17.35	3.580	5.320
Total	85.3	6 Average:	11.90	19.47	5.732	

* This does not represent the gain per acre on this oats field, as will be seen by a glance at Table 11, Farm 1. The Labor cost is, however, unaffected by this fact.

but for number of dollars profit at the close of the year, farm four leads, having made nine dollars profit per acre on forty five acres, or a gross profit on corn of approximately four hundred and five dollars, while farm one made nearly eight dollars profit on about twenty eight acres, or two hundred twenty four dollars on corn. In addition to the profit on the crop the labor charge made, is a point worth considering. If a man can pay himself twelve dollars per acre, labor wage, and make a profit of nine dollars, he has more money at the end of the operation than a man who pays himself only eight dollars per acre, labor wage, and makes even the same profit in dollars. Of course we would say that if, under exactly similar conditions one man made eight dollars, with eight dollars spent, then he was a more skillful business man than a man who made nine dollars with twelve dollars labor expense. But these cannot be compared in this way, because conditions were not comparable. The figures mean just what they say, that under certain definite conditions, the different farms came out with certain results.

Table 26.

This table is similar to the previous one in its arrangement. It shows in the case of farm one, an enormous profit, which was not made entirely by the oats. True the oats made fifty bushels per acre with very heavy straw, but this profit includes the cow pea growth, that was plowed under. A reference to table eleven, farm one, will make this point clear. Farm two made a small gain per acre. We should notice that the loss per acre on ~~this~~ farm three was greater than the labor cost of the crop. Farm four did exceptionally well for a dry season, even after losing some on a six acre field. The highest

labor cost came from farm two, as usual. A noticeable feature through all these tables, is that farm four shows nearly always a higher percentage man to horse labor per acre than do any of the farms. Farm four had the second lowest labor cost and the second highest profit.

Table 27.

This table gives the per acre cost of production of clover on three farms; also, the average. A remarkable similarity of cost exists between the three farms. Farm one put in less man hours, but enough more horse hours to make the cost come up to practically the same level.

Table 28.

Here again we find two farms quite similar to farm two going far ahead in costs., and in profits. Farm four does not show up in profits as well as farm one. This fact may, however, be entirely due to weather conditions. Reference to table ten, farm four, will show that farm four gave a very light yield that year. It usually produces two to three tons per acre.

Table 29.

This table shows the point made earlier, that the cost of producing cow peas on farm one, was very high, owing to the method of cutting and stacking. The costs on the other three farms are very comparable. As was stated before, farm four did not stack its peas, but put them in the mow for feed. Farm three only had a small plot, which did not require much store room.

Table 30.

A similar deduction from the soy bean fields shows some peculiar indications. The labor cost on farm one was approximately twice that on any other farm. Had it not been that the floods carried

TABLE 27.

CLOVER.

Farm	Acres	No. of Fields	Man Hrs.	Horse Hrs.	Cost
1	16.2	1	6.89	11.53	2.191
3	11.0	1	8.77	9.50	2.266
4	27.0	4	8.85	9.33	2.260
Total: 54.2		7	Average: 8.26	10.03	2.242

Table 28.

Timothy.

Farm	Acres	No. of Fields	Man Hrs.	Horse Hrs.	Cost	Profit.
1	11	1	6.455	7.045	1.673	2.786
2	26.4	1	9.030	14.710	2.830	6.089
4	8	1	6.03	7.625	1.667	1.000

Table 29.

Cow Peas.

Farm	Acres	No. of Fields	Man Hrs.	Horse Hrs.	Cost
1	2.5	1	64.40	69.90	16.652
2	13.2	2	27.46	38.20	7.939
3	1.0	1	15.5	35.00	5.830
4	25.0	6	23.62	26.16	6.159

away a large part of the crop, farm one would then have made money. The cost of production on the last three farms corresponds pretty closely. The cost of production of cowpeas and soy beans (Tables 29-30) are seen to compare very nearly. The gain on soy beans looks bad for farm four, but I think this was entirely due to the season. The soy beans were put in the silo, on this farm, and gave excellent results as far as they went.

Table 31.

In this table we study the labor cost of production from the standpoint of comparing preparation of ground and planting, tending, and harvesting. In other words, we want to know what per cent of the total man labor required to produce the crop goes to each one of the three mentioned divisions. The same information regarding horse labor, and total cost, is also desirable information. In order to get this information, we must of course have complete records. For instance, if a crop is hogged down, it cannot be used in this comparison.

The figures show us a great variation in the way the labor is divided up. On farm one the man labor is about evenly divided between the three divisions of the whole operation. The horse labor gradually increases from the first division at twenty six per cent, by jumps of seven per cent to the last division, of forty per cent. The cost figure increases also from the first to the last operation. Farm two put in over half of its labor cost in preparing the ground and planting. Slightly less than half the man labor with a good deal more than half the horse labor, brought the figure up to this point.

Table 30.

Soy Beans.

Farm	Acres	No. of Fields	Man Hrs.	Horse Hrs.	Cost	Profit
1	4	1	44.56	61.62	12.847	-10.980
2	1	1	23.50	29.00	6.428	6.586
3	1	1	15.50	35.00	5.830	3.637
4	2	1	19.75	34.00	6.360	-5.480

PRODUCTION OF CORN. (Distribution of Labor,
and Costs)

Table 31.

Per Cent of Labor and Per Cent of Costs.

Farm	Acres	Preparing and Planting			Tending		Harvesting			
		% Man Hrs.	% Horse Hrs.	% Cost	% Man Hrs.	% Horse Hrs.	% Cost	% Man Hrs.	% Horse Hrs.	% Cost
1	4	29.7	26.6	28.0	35.5	33.1	34.4	34.8	40.3	37.6
2	38	47.5	62.8	56.2	23.5	23.1	23.4	29.0	14.1	20.4
3	24	53.2	68.3	62.4	31.5	22.6	26.0	15.3	9.2	11.6
4	45	25.3	42.7	32.3	20.3	34.5	27.0	54.4	22.8	41.7

DISTRIBUTION OF COSTS (in dollars)
For Table 31.

Table 32.

Farm	Acres	Cost Per Acre			Profits Per Acre
		Preparing and Planting	Tending	Harvesting	
1	4	1.93	2.36	2.68	7.930
2	38	4.38	1.82	1.59	-1.745
3	24	4.81	2.00	.89	-2.085
4	45	4.05	3.60	5.22	9.045

Roughly the same proportion of expense attaches to the last two divisions with slightly more man labor in harvesting and a good deal less horse labor. Farm three put in most of the time in preparing a seed bed, with about one fourth of the labor for cultivating, and about one ninth for harvesting. Farm four spent more nearly one third of the time in the first division, twenty seven per cent in tending the crop, and nearly forty two per cent in harvesting. This last large per cent of time in harvesting was due to the fact that most of the corn crop was shredded or put in the silo. These figures are not uniform enough to give any general indications. However, they do indicate what per cent a man would save on each acre by pasturing it with hogs, rather than by harvesting it.

Table 32.

This one gives us the distribution of costs in dollars, showing the cost per acre of preparing and planting, tending, and harvesting. Thus we see that while on farm four, only twenty five per cent of the total man labor was put in in preparing a seed bed, and planting, and on farm two, for the same work forty seven and five tenths per cent of the total man labor was used; in horse labor, forty two and seven tenths per cent and sixty two and eight per cent respectively, yet the total cost of this division on farm four, was four dollars and five cents, compared with four dollars and thirty eight cents on farm two. This means that as much time was spent on farm four in preparing a seed bed as on farm two. In other words, the work was probably as carefully done.

By this same comparison we find that farm three, while it spent sixty two per cent of the total labor cost of the crop in pre-

paration and planting, in contrast to thirty two per cent on farm four, yet the dollar cost of labor is as follows: farm three, four dollars and eighty one cents; farm four, four dollars and five cents. The table also shows that while the per cent of labor devoted to tending in farm four was less in one instance and nearly the same in another, yet the dollar cost is more than one third more on farm four, in the first case and forty four per cent in the other case. This table also shows just how many dollars a man would save per acre by pasturing a crop off rather than harvesting it, were such a method possible.

Table 33.

This table treats oats in the same manner as (31) did corn. The first farm shows a relation very much different from the way the others run. It has nearly as great a per cent of man labor in preparing and planting as it does horse labor. The natural tendency shown in the last three farms is for the per cent of man labor to be small in the first division and large in the last, with horse labor running exactly opposite. Notice the very similar relation between the two divisions on farm three and four. Not a great deal of variation is shown in the two divisions on these farms, but it is uniform in both. In farm two the percentage cost of the two divisions bears the same relation to each other as is found in farms three and four. The cost of preparing the ground and planting will, however, be seen to be higher, while the cost of harvesting is lower. This is attributed to the fact that in preparing the ground and planting, the work was all controlled by the force on the farms, while the labor of harvesting was much less under their control, more of it was done by extra help.

Table 33.

Oats.

Farm	Acres	Preparing and Planting			Harvesting		
		% Man Hrs.	% Horse Hrs.	% Cost	% Man Hrs.	% Horse Hrs.	% Cost
1	6	61.	69.5	65.8	39.	30.5	34.2
2	29.3	48.6	64.	56.7	51.4	36.	43.3
3	24.	38.2	53.	46.5	61.8	47.	53.5
4	20.	36.5	55.1	46.7	63.5	44.9	53.3

Table 34.

Cow Peas.

Farm	Acres	Preparing and Planting.			Harvesting		
		%Man Hrs.	%Horse Hrs.	%Cost	%Man Hrs.	%Horse Hrs.	%Cost
1	2.5	15.7	31.	22.5	84.3	69.0	77.5
2	13.2	37.7	60.5	51.3	62.3	39.5	48.7
4	13	38.3	66.6	50.5	61.7	33.3	49.5

Table 35.

Cost Of Hauling Manure(From Farm Four)

No. Loads	* Distance to Field(in Rds.)	Cost Per Load.	Per Cent Increase In Cost.
15	45	\$.362	-
52	60	.395	9.1
45	80	.418	15.46
61	90	.442	22.10

Total
Loads 173.Av.Distance 74.48.Av.Cost .415

* Distance to center of field over route traveled by spreader.

When we couple this with the tendency in the other cases of the labor cost on this farm to run higher, we seem to have the explanation in this instance.

Table 34.

In this table we see more marked than ever the reversal of percentage of man and horse labor in the two divisions. In farms two and four, the labor of preparing and planting was about half the total, while this proved but a small part in farm one. The great and unusual expense of stacking in the case of farm one, is responsible for this. Mention should be made here of the fact that the cultivation factor was not brought into this table, because it did not enter into the cost of producing the crop in all cases, and when it did, it was so small a factor as to make very little difference in the result. Not considering it, affects in no way the percentage of time devoted to the two divisions given, or the relation of one to the other.

Table 35.

This table was made from the relation between distance of hauling manure and cost of hauling. The distance given is that from the barn to the center of each field given, over the route hauled, and measured in rods. In counting distance to the center of the field we will get the average distance in a large number of cases. The number of cases in this table are fairly large, and being strung out over the whole year makes them more representative. We find the cost increasing very uniformly with each increase in distance. The table shows that doubling the distance of hauling on this farm and the cost would be increased by approximately one fifth. The average cost of hauling this manure was forty one and a half cents per load.

The implement used was a seventy bushel spreader.

This closes the discussion of the Summaries. We now take up a slightly different method of distribution of labor, based on the character of work done.

VI

THE DISTRIBUTION OF PRODUCTIVE AND NON-PRODUCTIVE LABOR.

All labor done on the farm is capable of being placed in one of two general classes of labor, viz.: productive, and non-productive. In the following pages we shall divide the work on the four farms studied, into these two general classes. A study of Plate six will give an idea of the classification used.

I. Productive Labor means labor that produces value or, in other terms, labor which adds to the assets of a farm. We distinguish it from non-productive labor by determining whether the farm or the farm business is worth more because of its having been done, or whether the farm business is just maintained as a productive machine. For example, building a new fence is productive labor but repairing an old one is non-productive. Again, caring for work stock is non-productive, while caring for other stock on the farm is productive. The several points will, however, be discussed in their order.

The farm is looked upon as a producing machine. Any labor which adds to its ability to produce, is productive, and the labor which just maintains it at its state of efficiency, is non-productive.

PLATE VI.

LABOR CLASSIFICATION

Productive labor is broadly divided into two classes, (1), crop, and (2), other productive. The reasons for this will be given later.

A. By Crop Labor, we mean all labor given to the production and marketing of crops, if the crop is sold. If kept on the farm, then of course the labor on crops stops when the crop is put into the crib or granary.

B. The class, other productive labor, is also subdivided into Directly Productive, and Indirectly productive. This division is not an important one except for one purpose. When a man is directing labor, it is to his interest to use that labor where it will bring him in profits as directly as possible. For example, if I am managing a farm where I must pay for the labor each year, I want my laborers to do work which brings me in profits this year. I would not keep them clearing timber pasture, or carrying stones off a pasture lot. But the division is not meant to be permanent at all. The two classes of labor must be finally considered together.

1. By Directly productive labor we mean labor that produces reasonably immediate returns. In this class would come work on the live stock of the farm, including feeding, care, buying, and selling, etc.; work of preparing such things as meats, seed, etc. for the market; also the treating and grading of seed to make it more marketable. Paid outside labor would be placed in this class, in addition to those mentioned.

2. Indirectly productive labor includes labor in improving real estate, where it does not directly affect the yields of crops (such work as putting up new

buildings or fences, stopping washes, clearing, etc. would be included); also outside labor given for accommodation, volunteer work on roads, etc. This latter is called good will labor. Another kind of labor that would come in this class, is the bringing home and setting up of new equipment.

II. Under Non Productive labor is included four general divisions of labor.

A. Maintenance. By this term we mean the up keep of equipment and real estate. We must determine in such cases whether a piece of work is maintenance or improvement, the addition of something, or the renovation of what already existed. Under maintenance of real estate would come repair of buildings, fences, etc., the painting of buildings and the maintaining of checks on washing, etc. of land.

B. House Hold. All house hold work is classed as non-productive. We do, however, separate from this the making of products for sale, from the farm home, whenever any such case comes up.

C. Workstock is considered as a machine in connection with the farm business, consequently all work of feeding and care of workstock is non-productive. From this is always taken work in caring for brood mares, kept for this purpose alone, or jennets, etc. Neither would care of a stallion come under this head. The breaking in of colts is productive, in so far as the broken horse is worth more than the colt. In short, the word workstock means just exactly workstock, nothing more, when we speak of it as equipment.

D. In addition to the foregoing, all labor chargeable to the personal account is placed in the non-productive class.

With this brief explanation, the following Plates will be better understood.

It is a well recognized fact that on any farm the ideal manner for labor to distribute itself, is first of all to have the same amount of work each week, throughout the year. This is the case in other business and it would avoid any congestion at any time, or periods when there was little to do. So that, if a curve were constructed to show the ideal, it would be a straight line running parallel to the axis on which the weeks were plotted.

The diagram given on the next page will give an idea of the situation from a purely theoretical stand point. The horizontal line at the top of the figure represents the total labor per week curve, the three divisions between that and the base, representing the different classes of labor. On any given farm, the non-productive labor should, under perfect management, be a constant quantity; in other words, the total amount should be the same from year to year. This would, if allowed to run its own way, give the same amount each week, also. But under skillful management it can be influenced to a certain extent to take the shape of the curve for non-productive labor, given in the diagram. The amount of this non-productive labor is determined by the size of farm, number of tillable acres, type of farming followed, and the degree to which the farm is improved. There should be a definite relation between this labor and these factors on any farm. So also, is the crop labor a pretty well defined amount on any farm; determined by the acres of cultivated land and the crops grown.

Diagram showing theoretically the distribution of labor on the farm, between the three general classes of labor, viz: Non-Productive, Productive Crop, and Other Productive.

The second curve from the base represents the theoretical direction this curve would travel. With practically no crop work through January and February, the crop curve breaks away from maintenance in March. Reaching a maximum in July, it then falls slightly through a part of August and September, rising again in October, it finally falls off to zero in December.

The facts then are, that with the non-productive and crop labor determined by certain definite factors, it remains for the other productive labor to balance the weeks throughout the year. This explains why we have crop labor so completely separated from other productive labor, since crop labor is a definite quantity, and other productive a variable one, used to regulate the total labor. In other words, a man has so much work stock to care for, so much equipment to keep up, and so many fences and buildings to keep in repair. His household and personal duties require so much time. He can raise only a certain number of crops on a certain number of acres. His crop work must come at a certain time. A definite amount of his maintenance work must be done each day. He can wait till winter to overhaul his equipment and straighten up the fences, but this will not take all his time. He must have some other productive labor for the free days, if he is to attain maximum efficiency. This kind of labor is represented in the space between the crop curve and the total curve in the diagram. There are several ways men have of balancing their labor through this third class of labor. It will be easily understood how the dairy farm comes more nearly balancing its labor, than the other farms we study. Some of the things that can be done to balance non-productive and crop labor, are: grading, testing, cleaning, and treatment of seed for sale; More work can be devoted to live stock, especially in winter and early spring; killing and curing of meat for sale, putting

products produced in season in more salable shape, etc.

Table(1) following, shows the percent of both man and horse labor devoted to the several classes of labor on the farms. Notice the very definite per cent of the total labor on each farm, in the non-productive column. The slightly higher per cent on farm one was due in part, to the repeated necessity for repairing fences that the stream took out. A study of Plate (VII) following, will also show this. The per cent of total labor devoted to crops was also fairly constant. This factor was influenced to a certain extent by the kind of crops grown and the amounts handled. The horse labor portion of the table shows that horse labor is much less uniformly handled than man labor.

Table(2) shows for each farm the per cent of the average man's time devoted to each class of labor.

Table(3) shows the same for horse labor. Note that about twenty-eight per cent of a man's time is taken up in field work, ~~seventy-seven~~^{teen} per cent in non-productive labor, and the remainder must be supplied by other productive labor. There is a close similarity between the per centage required per workman for the first two classes of work. Not so much of a uniformity exists, however, with regard to horse labor.

Tables(4 and 5).give for the four farms the average hours of each kind of labor given per acre total area, and per acre of area in harvested crops. The first basis is of course, the one on which to compare the non-productive labor, while the second one is the basis for the comparison of the productive crop labor. The lower figure in the case of farm three, non-productive, is explained by the fact that farm three was a rented farm and also had a minimum of work stock. Also the record does not cover the months in which most repair work would have been done. On farm four, a great deal of work was put in, chargeable to the

LABOR DISTRIBUTION.

Table 1.

A. Man Labor.

Farm	Non-Productive		Productive Crop		Other Productive				Totals.
	Hours	Per Cent	Hours	Per Cent	Direct		Indirect		
					Hours	Per Cent	Hours	Per Cent	
1	805 $\frac{1}{4}$	20.076	1208	30.112	1381	34.42	616 $\frac{3}{4}$	15.376	4011
2	984 $\frac{1}{2}$	15.456	2179	34.218	1219 $\frac{1}{2}$	19.13	1986	31.18	6369 $\frac{1}{2}$
3	849 $\frac{1}{2}$	14.38	1356 $\frac{1}{4}$	22.96	3016 $\frac{1}{2}$	51.06	685 $\frac{1}{2}$	11.60	5907 $\frac{3}{4}$
4	2918 $\frac{1}{2}$	16.916	4853 $\frac{3}{4}$	28.14	9257	53.67	216 $\frac{3}{4}$	1.257	17246
Average	555$\frac{1}{4}$	16.57	959$\frac{1}{2}$	28.62	1487$\frac{1}{4}$	44.35	3505	10.45	5859$\frac{1}{4}$

B. Horse Labor.

Farm	Non-Productive		Productive Crop		Other Productive				Totals.
					Direct		Indirect		
	Hours	Per Cent	Hours	Per Cent	Hours	Per Cent	Hours	Per Cent	
1	1000½	21.62	2388½	51.60	750½	16.22	488½	10.56	4628
2	401¼	6.83	4077¾	69.48	462½	7.89	927	15.80	5868½
3	336½	6.91	2507	51.48	1607	32.99	419¾	8.62	4870¼
4	2200¾	20.17	6555¼	60.10	1990¼	18.25	162	1.48	10908¼
Average	5959	14.41	15528½	56.96	4910¼	17.64	899¾	10.99	27275

MAN LABOR.
AVERAGE PER REGULAR
WORKMAN.

Table 2. (Per Cent).

Farm	Non-Prod.	Prod. Crop	Other Prod.		Total Hrs.
			Direct	Indirect.	
1	21.1	27.5	35.6	15.8	2236 $\frac{3}{4}$
2	16.2	33.5	19.2	31.1	3357
3	15.9	22.4	49.2	12.5	3334 $\frac{1}{2}$
4	17.0	27.8	54.0	1.2	3223 $\frac{1}{2}$

HORSE LABOR.
AVERAGE PER WORK HORSE.
(Per Cent)

Table 3. (Headings as above)

1	21.6	51.6	16.2	10.6	925 $\frac{1}{2}$
2	6.8	69.5	7.9	15.8	9978
3	7.3	49.1	34.4	9.2	1022 $\frac{1}{2}$
4	20.2	60.1	18.2	1.5	1558 $\frac{1}{4}$

LABOR DISTRIBUTION

PER ACRE.

Table 4.

(Hours).

Man Labor.

Farm	Non-productive		Prod. Crop		Other Prod.		Other Prod.	
	Total Area	Harvested Crops	Total Area	Harvested Crops	Direct Total Harvest	Indirect Total Harvest	Direct Total Harvest	Indirect Total Harvest
1	7.82	10.93	11.73	16.38	13.42	18.74	5.99	8.23
2	6.16	9.23	13.61	20.20	7.61	11.32	12.40	18.42
3	5.31	9.63	8.45	15.40	18.83	34.22	4.28	7.78
4	9.73	21.05	16.18	35.08	30.85	66.80	.72	1.57

Table 5.

Headings as above.

Horse Labor.

1	9.71	13.57	23.2	32.4	7.34	10.25	4.74	6.63
2	2.51	3.72	25.5	37.8	2.89	4.29	5.79	8.61
3	2.08	3.82	15.68	28.48	10.08	18.25	2.62	4.76
4	7.33	15.89	21.85	47.35	6.63	14.38	.54	1.17

house hold, as a reference to summary table two will show. The reasons for the variation in productive crop labor per acre are readily understood from the preceding discussion. The greater part of man labor is usually in other productive, while horse labor is largest in productive crop.

After this brief study of the labor of the four farms according to the classification given, we will take up the labor on each farm in detail.

Plate (7) gives us a picture of the man labor on farm one, worked out on the per average workman basis, and for seven-day periods, throughout the year. The seven day period was used as a basis to avoid having more than one Sunday in a period. The scale used is the same in all the plates, so they may be comparable. The two marked drops in total labor the first and last of May were caused by heavy rains which kept the workmen from the fields at that time. Comparing this with the theoretical diagram made, we see the two general maximums of field work in June and July for one period, and again in October, for the second period. Notice the lack of uniformity in the non-productive and total curves. Notice how the non-productive curve rises at the end of May in ^{sponse} regard to the fall of the other curves. This was a very heavy rain period and much repairing of fences, etc. was necessary. Also notice the general effort of the other productive spaces, (3 and 4) to level up the total labor curve. They do not come very near doing it, thus showing that the labor on this farm does not come evenly, but at times, there are rush periods, and at times very little work is done.

Plate (8).

This is a picture of the labor on farm two corresponding to the one on farm one, just given. In general, the non-productive labor runs more uniformly than in Plate (7). Also, this is true of the

PLATE VII. FARM I

Labor — Distribution
Average per regular Workman.

1- NonProductive Labor. 2. Productive - Crop
3- Other Productive-Directly 4- Other Productive-Indirectly

Max. Labor per Week 81 hours

Min. Labor per WK 33.76 hr.

Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.																																							
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

PLATE VIII

FARM 2

Labor Distribution - Man Labor
Average per wk. per Regular Workman

- 1 - Non Productive Labor 2 - Productive Crop
3 - Other Productive - Directly
4 - Other Productive - Indirectly

total labor curve. During the eleventh and twelfth weeks an almost complete cessation of field work due to heavy storms, was well met by other productive labor. Falls on the twentieth, twenty-fourth, twenty-sixth to twenty-ninth, thirty-sixth to thirty ninth, and most of January and February, were nicely met by other productive labor. The fall in total labor in January(48th) week, was due to severe sleet and snow storms, when it was unfit to work at all. This table is one of the best illustrations of maximum labor each week. The only trouble is in the character of the other productive labor. It was largely building, or indirectly productive, with very little directly productive. This indicates to me, that when the time comes that the permanent improvement is all finished, the workmen will have comparatively little other productive labor to balance up with, unless they make some changes in their system as it now exists.

Plate(9).

This gives the labor of farm three. So far as handling man labor goes, this one stands out above either of the other two. Notice the evenness of the non-productive labor, the general effort of the crop labor to conform to the diagram given earlier, and the smoothness of the total labor curve, with very little indirectly productive labor. The regularity of the directly productive labor is due to the dairy feature on this farm. An ^{exceptional} ~~expensive~~ feature of this labor on this farm, is that longer weeks were put in here than on any of the others.

Plate(10).

The labor on this farm(four) best illustrates the general labor situation on a well managed home farm. The weeks are not so long as in the case of farm three, but things are remarkably well proportioned. With the exception of one drop due to a hard storm in April, and a general depression in July, because of the ground's being too hard and dry to plow, the curves run very nearly ideally. Note the

PLATE IX. FARM 3

Labor Distribution - Man Labor
Average per. wk. per. Regular-Workman

- 1. - Non Productive Labor.
- 2. - Productive Crop
- 3. - Other Productive - Directly
- 4. - Other Productive - Indirectly

PLATE X. FARM 4

Labor Distribution - Man Labor
Average per wk. per regular Workman

- 1 - Non Productive Labor
- 2 - Productive Crop
- 3 - Other Productive - Directly
- 4 - Other Productive - Indirectly

smoothness of the non-productive curve; the two rises in crop work, and the general leveling up, by the other productive curve. The harvest period was drawn out here, because filling the silo began in August and the last operations were shredding fodder in December. This record is only one of the four, for a complete year. The amount of indirectly productive labor on this farm was at a minimum, also. This plate illustrates a commendable feature of the dairy farm, regular work the year round.

Plate(11).

This plate gives us the average per workman for all the farms, and shows us that the average is pretty definite in the direction of the diagram at the first of this discussion. One peculiar feature of this average, is the fact that it so happened that a heavy week on all farms fell, on the twenty-second week, thus making the curve rise to a maximum at this time. Otherwise the curve is very regular in its direction. The average hours per week did not change materially from spring to winter, but in winter they dropped a little lower. Notice the levelness of the non-productive curve. With an individual farm, this curve is too easily sent up by a little accident, causing a few hours extra work of this kind.

We will now turn to a similar study of the horse labor on the farms. The plates are made on the same scale, so as to be comparable. In a general way, the horse labor follows the direction of the diagram, but the curves are more variable in every respect, showing sometimes a fair amount of labor and sometimes none at all. They surely emphasize the fact that the horse labor factor is a hard one to control. The curves are worked out on the unit basis also, that is, per regular work horse per week.

Plate(12).

The horse labor on farm one was an exceedingly variable factor, as will be seen in this plate. The same effect of storms,

PLATE XI.

Labor Distribution Man Labor

Average of all Farms

- 1. Non Productive Labor.
- 2. Productive Crop
- 3. Other Productive. Directly
- 4. Other Productive. Indirectly

PLATE XII. FARM I

Labor Distribution - Horse Labor
Average per Regular Work Horse

- 1- Non-Productive Labor.
- 2- Productive Crop
- 3- Other Productive-Directly
- 4- Other Productive-Indirectly

only usually a more marked one, is seen in horse labor, than was found in man labor. The effect is felt more on field work than on the other classes. Here we find that not a week passed without some horse labor being done, but it fell pretty low at times. The major part of a horse's work, is in the field, as this curve admirably shows.

Plate (13).

The horse labor on farm two was its weakest point. Notice the very rough character of the curve. The weather had some effect, but it cannot be blamed for all the drops. Practically no non-productive horse labor was used. This farm being a general one, also well illustrates the fact that on a general farm, practically all the horse labor is field work. Some weeks, no horse labor at all was used. This is the record of what the near ideal work stock equipment was required to do.

Plate(14).

The horse labor on farm three shows a much more regular trend than on the ^{one} just discussed, and is about the same as that on farm one. Here we have a good illustration of two points: the value of some other work than field work for horses, and the regularity of non-productive horse labor, usually required on the farm. The maximum week here was not quite that of farm one, but there were a greater number of high weeks on farm three. In all the horse labor curves we do not see much effort to level up the total labor curve. At no time on this farm was there a period like the forty six to forty eight week period on farm two.

Plate(15).

On plate fifteen we have the average horse record for farm four. We recall that the horses on this farm worked the largest number of hours per day of any on the farms. We find in this curve that

PLATE XIII. FARM 2.

Labor Distribution - Horse Labor
Average per regular Work Horse.
1.-Non Productive Labor 2.- Productive Crop
3.- Other Productive -Directly
4.- Other Productive -Indirectly

PLATE XIV. FARM 3

Labor Distribution—Horse Labor
Coverage Per. Regular Work Horse

- 1.- Non Productive Labor.
- 2.- Productive Crop
- 3.- Other Productive - Directly
- 4.- Other Productive - Indirectly

PLATE XV. FARM 4

Labor Distribution - Horse Labor
Average per regular work horse

- 1. Non-Productive Labor
- 2. Productive Crop
- 3. Other Productive Directly
- 4. Other Productive Indirectly

while there was always a supply of other productive labor for the work stock, it was so small compared with the total labor each horse did, that it does not show up much, during the crop period. This plate also shows a fairly regular demand for non-productive horse labor. There was a good supply of horse labor used.

Plate(16).

Here we have for horse labor what plate(11) gave for man labor. This shows us the general trend of the horse labor on the farm. Field labor is still the factor which determines the direction of the total labor curve. Other productive labor helps in a small way to level up the total curve, but its scarcity on two of the farms, does not make its effect very great. The latter parts of March and April seem to be unfavorable for horse labor. Otherwise, the curve follows approximately the diagram.

This closes the discussion of the distribution of labor on the farms. Now we will see just what the figures given have brought out, and just what they mean.

PLATE XVI.

Labor Distribution — Horse Labor
Coverage per regular Work Horse For all the Farms

- 1- Non Productive Labor 2. Productive Crop
3- Other Productive Directly
4- Other Productive Indirectly

S U M M A R Y .

We have found in our study, a number of things concerning these farms, and their operation. Among them are the following:-

1. Length of days worked.

Man Labor. Rank 3,2,1,4 from longest to shortest.

Horse " " 4, 3 and 1, 2, " " "

2. Time devoted to field labor.(Per cent of all labor).

	Farm 1.	Farm 2.	Farm 3.	Farm 4.
Man	34.5%	30.5%	24.8%	30.4%
Horse	52.0%	68.6%	54.4%	61.8%

3. Per Cent of total cost, of all field labor.

42% 43.7% 35.2% 40%

4. For labor cost of keeping work stock, the farms ranked:

1, 3, 4, 2, in order from least cost.

5. The labor cost for dairy cows was as follows, giving the farms in order of their rank from cheapest up:

1, 4, 3, 2.

6. The labor cost of operating the farms, gave farm four the highest figure, with \$12.772^{per acre} expense. Farm three was lowest, with \$8.90^{per acre}.

7. Farm one made the highest profits per acre of whole farm, while farm four made the highest profits per acre of harvested crops, and gross profits.

Crop Summaries. 8. Some costs per acre of common operations for all farms, and with all kinds of machines used, was as follows:

Plowing - - -	\$2.21	Siloing corn - -	\$5.409
Discing - - -	.395	Cutting grain - -	.541
Harrowing - -	.239	Stacking " - - -	.865
Planting corn -	.423	Mowing Hay - - -	.397
Cultivating " -	.646	Raking " - - -	.174
(single operation)			

The other operations were so different as to make averages worthless

9. In labor cost of production, great variation was found.

In producing corn, farm four was highest, but it also had the highest profits.

In cost of producing oats, farm two was highest.

In cost of producing clover, farm three was highest.

10. In studying the production of corn, it was found that about fifty per cent of the total cost was in the preparing and planting.

With oats, the cost of preparing ground and planting, was greater in two cases than the cost of harvesting, and just the reverse in two other cases.

With cowpeas, the cost was about evenly divided in two cases.

In one case, the harvesting was over three fourths the cost.

11. On farm four, the cost of hauling manure an average distance of seventy four and a half rods, was \$.415 per load. Doubling the distance increased the cost twenty-two per cent.

12. Labor distribution. The per centage of man labor of the three classes, on the farms, did not differ markedly. Horse labor was more variable.

13. On a per acre comparison, the figures tended to show that about the same non-productive labor was required per acre, (barring differences in conditions).

14. Horse labor seemed to take no definite course except for

field work. Here the amounts showed a similarity.

15. In the study of the distribution of labor on each farm, the highest efficiency in handling man labor, seemed to lie between farm three and four. Farm one seemed the least efficient. With regard to horse labor, number four proved most efficient, with three next, and two lowest in efficiency. These facts were due to the kind of farming carried on.

CONCLUSIONS.

FARM I.

This farm should study the problem of obtaining a more even distribution of both man and horse labor. Some kind of Other Productive labor should be introduced to make labor more regular. A clearing out of the stream to prevent overflow and then the production and sale of cow pea and soy bean seed, would help out in this matter.

FARM II.

This farm does too little field work for the time it consumes. Also, Horse labor is not used enough. Some means of introducing Other Productive labor should also be worked out. More attention paid to live stock, or pure bred seed, would help, even if some feed had to be purchased.

FARM III.

This farm cannot afford to grow corn, oats, etc., when the only crop that will pay, is beans. This operator could better afford to rent other ^{for crops} land. The labor situation here is very good. Effort should always be made to use more productive horse labor, however.

FARM IV.

It is believed that this farm could afford to use some larger machinery. I know it is impossible, in most cases, but the labor cost of performing an operation should be lowered if possible. True, they made money, besides paying them for their work, but they ought to make the same money with less work, and thus be able to farm more acres. This should increase their profits. The labor situation here is the best of any one of the farms. Farm three equals it so far as man labor goes, but in horse labor, is not so good.

In addition to the special facts brought out on each farm, the general weakness of horse labor, is especially obvious. Man labor

could be greatly improved in most cases, but horse labor needs reorganizing. It is recognized that this factor is ~~more different~~ ~~control~~, and more difficult to control, but it surely needs controlling. The third factor, Other Productive labor, must always be depended on to balance labor, both man and horse. Some way of making horses earn their keep, during the months when there is no field work, must be found, or men cannot afford to keep them over winter. The problem does not seem to be more horses per man, if you are going to keep them the year round, or otherwise, but it is, more work per horse.