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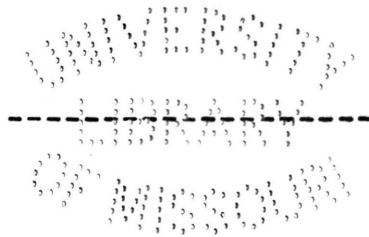
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THE DISTRIBUTION
OF
FARM LABOR

BY

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THE DISTRIBUTION OF FARM LABOR.

INTRODUCTION.

Stating the Question: It is important that a farmer know the labor requirements in the productions of the various crops and in the production of the various classes of livestock, and that he know what influence a combination of crops and stock has on the distribution of farm labor. It is a cardinal principle of successful farm management, that to be profitable a farm system must provide for a fairly steady and regular employment of labor. So it shall be the purpose of this paper to show from actual records to what extent and in what kinds of production the farm labor can be managed so as to provide for a steady and regular employment.

The Data Used. In the year 1910 the Department of Farm Management, of the Missouri Agricultural College, in co-operation with the United States Department of Agriculture, began with individual farmers a system of farm records. It consisted of daily labor records kept by the farmer or manager. Blanks were furnished the farmer in the form of a pad of about fifty or sixty sheets. Each page provided for a day's labor. At the end of every month these reports were sent in to the Department of Farm Management, College of Agriculture, where they were transferred to a labor ledger.

However, this system, with the large number of loose sheets sent in by the co-operator, became so unwieldy that another and better system was devised. The new plan adopted was

the keeping of a farm diary. This book provided a page on which, for every day in the month, the farmer was to enter labor and financial items, and also provided space, at the end of each month's record, for a statement of the amount and value of feed used during the month, and of the labor used in caring for the stock. When the year's labor had been completed, and the diary filled, it was sent in to the Department of Farm Management and the data were summarized.

This plan was first started in 1912 with six farmers. In 1913, there were twelve farmers, and in 1914 a total of twenty-six. The first six are the grain farms, Nos. 7 to 13 inclusive are general farms, and Nos. 14 to 25 inclusive are stock farms. For this paper twenty-five of the 1914 diaries were used, one having been omitted because it was not finished until late in the fall of 1915. From the forty-four records that had been summarized in the last three years, these twenty-five were selected for the following reasons: (1) the farmers in the third year, kept the records more accurately than during the first years of the experiment; (2) the men directing the work, after having two years experience with the work, had become able to prevent numerous errors that occurred in the earlier experiment. Since these records are reports kept daily by the farmers, and since his estimate of the labor spent on any particular piece of work was only for the day on which it was entered and was made on the same day on which the work was done, these twenty-five records will be found accurate enough * to

* See Page No. 9 for proof of accuracy.

serve as a basis of valuable conclusions.

Definitions of terms used: Before entering upon a discussion of the subject to be presented, it is necessary to define the terms that will appear in this paper. These are as follows:

I. Total Labor. The total labor--both man and horse labor--on each of these twenty-five farms has been divided into four main divisions. These divisions, and the parts of the farm business which each main division includes, are shown in the following table.

Table No. 1--Labor Classification.

Class of Labor	Labor on:
	Equipment
	Real Estate. Land Buildings Fences
Maintenance	Work Stock Care Feeding
	Personal
	Caring for
Stock	Feeding Breeding Marketing
	Production
Crops	Marketing
	Improvements
Other Production	Outside Labor.

2. The terms "Man Hour" and "Horse Hour" means the work of a man and a horse for an hour's time.

3. The term "Horses" means all horses on the farm. When the number of animal units of horses on the farm is less than the number of horses, it means that some young horses are included.

4. The term "Cows" means milk cows.

5. The term "Other Cattle" includes calves, yearlings, steers, bulls.

6. The term "Other Hogs" means all swine except brood sows.

7. The term "Sheep" includes mature sheep and their lambs.

8. The term "Labor Income" means the amount a farmer has left for his management after he has paid all expenses of operating the farm and has counted out 5% on his investment in land and equipment.

9. The term "Cost of Family Living" includes all cash expenses of the household, personal expenses, labor of hauling wood to the house and groceries from town, and a rent charge for the use of the house.

10. Animal Unit. For the purpose of comparing the different classes of stock, some common unit must be established in which common unit the different animals may be expressed. Were all farm animals work animals, it might be well to compare them on the basis of work done per animal. But since that is not the case, the comparison is based on the value of feed

eaten by an animal of each class. The data for this comparison were also taken from the diaries, and represent the average cost of the feed that Missouri farmers are feeding to their live stock. The classes of stock, and the number of animals of each class necessary to make up one animal unit are shown in the following table:

Table No. 2 - Animal Units*

Class of Stock	Number of Animals Per Unit
Work Horses	1.0
Other Horses	3.0
Dairy Cows	1.8
Other Milk Cows	2.9
Cattle under Two Years	4.2
Cattle over Two Years	3.1
Brood Sows	4.3
Stock Hogs	7.2
Fat Hogs	2.8
Ewes and Lambs	22.7
Poultry	122.

* Table taken from seminar paper presented by E. L. Rhoads, a senior in the College of Agriculture.

CHAPTER I.

THE LABOR REQUIREMENTS OF THE VARIOUS CROPS, AND
CLASSES OF LIVE STOCK.

Crops: The first thing to call attention to will be the difference in the amount of labor required to produce each of the various crops grown on most farms. Most farmers know how many acres of corn one man can tend during the season, and how much extra help will be necessary to harvest a crop of hay. But the actual amount of time spent on one acre of any crop from the time of planting until it is harvested is a much more difficult matter for a farmer to estimate. In order to determine the labor requirements of the various crops, data were collected from the 1912, 1913, and 1914 diaries. Thus it was possible to obtain data on a large number of acres, and though the data were collected from three different years yet the amount of labor spent on an acre of each crop was found not to vary much from one year to another. Though weather conditions one year may have caused the labor on a certain crop to be high, and the conditions of another year may have caused it to be low, yet by taking an average of the three years, such extremes of variations neutralized each other, thereby making these computations of the labor requirements for the various crops fairly representative of actual farm conditions and methods over the state.

Having such a table on which to base a calculation, the farmer can plan the labor for any part or all of the year. Then, too, such a calculation makes it possible to study the best combination of crops, so that a minimum amount of working force

Table No. 3 Labor Requirements Of An Acre Of Each Crop

Month	Corn 1666A		Oats 522.75A		Clover 106.5A		Month	Wheat 341A	
	Man	Horse	Man	Horse	Man	Horse		Month	Man
Mar.	.13	.19	1.99	5.15	----	----	July	2.06	2.66
Apr.	1.88	5.43	1.71	5.11	----	----	Aug.	1.58	4.11
May.	5.27	13.80	.15	.46	----	----	Sept.	2.62	6.93
June	4.53	8.19	.83	1.01	5.25	5.62	Oct.	2.34	5.80
July	2.08	3.04	3.7	4.58	2.1	2.	Nov.	.04	.07
Aug.	.69	.43	.68	.96	----	----	----	----	----
Sept.	2.18	1.59	.18	.40	----	----	----	----	----
Oct.	1.64	2.29	.13	.23	----	----	June	4.07	4.46
Nov.	1.69	1.85	----	-----	----	----	July	2.54	2.65
Dec.	1.23	1.40	----	----	----	----	Aug.	.2	.36
Jan.	.35	.41	----	----	----	----	Sept.	----	----
Feb.	.13	.13	----	----	.38	----	Oct.	.04	.15
Total	21.80	38.75	9.37	17.90	7.73	7.62		15.46	26.99

Table No. 4 - Labor Requirements Per Acre.

Month	Timothy Man	Horse	Cowpeas Man	198.5A Horse	Soybeans Man	177.5A Horse	Alfalfa Man	69A Horse
Mar.	.3	.47	----	----	----	----	.23	.61
Apr.	.01	.04	.3	.74	.3	1.11	.03	.06
May	----	----	2.72	8.38	3.51	10.3	3.71	5.78
June	.64	.68	3.65	9.3	4.27	7.58	4.59	7.68
July	6.23	7.34	1.92	5.17	3.42	3.58	5.86	10.68
Aug.	.02	.04	.85	.35	1.82	4.08	1.41	2.9
Sept.	.13	.13	2.46	2.68	1.82	1.9	1.1	2.09
Oct.	----	----	5.31	5.03	4.68	4.72	.93	1.55
Nov.	----	----	1.38	.69	.77	.84	.63	.63
Dec.	----	----	.33	.48	.41	.24	----	----
Jan.	----	----	.01	.02	.01	.03	----	----
Feb.	----	----	----	----	.03	.05	----	----
Total	7.36	8.71	18.93	18.34	21.04	34.43	18.49	31.98

can produce the maximum value of crops. It must be remembered that these tables of labor requirements take into account all ordinary variations caused by weather, or other temporary delays. They are reports of what the farmers actually did, and are not theoretical figures.

To test how nearly accurate these figures are, the labor reports on the six grain farms were grouped together and the average acreage of the various crops obtained. From the total seasonal labor requirements per acre, which each farmer reported for a crop, the average seasonal labor requirement per acre was ascertained. * Multiplying these seasonal labor requirements of each crop by the average acreage of that crop, it was found that the production of the crops alone used 1516.6 Man Hours. The average field labor actually done by these farmers was found to be 1839.9 Man Hours. This apparently leaves a difference of 178.2 Man Hours spent in field labor that was not actually required by the crops. By referring to the labor ledgers, it was found that the average amount of time spent on manure was 143 Man Hours. Subtracting this sum from the 178.2 Man Hours, there was a remainder of only 35.2 hours. This represents the error that was encountered, but it is too small to disprove the accuracy of these figures, since it is only about 2% of the total field labor.

Live Stock It is much more difficult for the farmer to judge the labor required for the stock than that for crops. On work stock the work is fairly uniform and can be easily estimated; but it is much more difficult to determine how

* See table of labor requirements for various crops.

much time is spent on a milk cow, or how much time is spent on a brood sow during the year. Furthermore, while the time spent on one kind of stock is more or less uniform throughout the year, other classes of stock demand a larger amount of labor in the spring or fall and a small amount in the summer.

For the purpose, then, of obtaining definite figures on requirements of the various classes of stock, data from these twenty-five diaries, together with similar data from other diaries, were tabulated and the man and horse labor requirements were calculated. Results of these tabulations appear in tables of Hours Per Animal.

Table No. 5. Hours Per Animal.

Month	Work Horses		Milk Cows	
	Man	Horse	Man	Horse.
Mar.	6.31	1.0	7.07	.34
Apr.	7.21	.97	7.28	.10
May	7.36	.61	8.11	.13
June	7.33	.74	8.95	.095
July	6.95	.62	8.20	.27
August	6.0	.41	8.65	.21
Sept.	5.73	.18	8.80	.176
Oct.	5.4	.21	8.73	.308
Nov.	5.11	.30	9.09	.537
Dec.	5.74	1.32	8.99	.564
Jan.	6.18	1.37	8.31	.746
Feb.	5.86	1.13	7.96	.433
Total	75.18	8.86	100.14	3.905

Table No. 6 - Hours Per Animal

Month	Other Cattle		Brood Sows		Other Hogs		Per 100 Hens	
	Man	Horse	Man	Horse	Man	Horse	Man	Horse
Mar.	5.2	1.81	3.37	.36	2.06	1.25	15.9	1.72
Apr.	4.65	1.72	2.76	.29	1.88	.62	25.93	1.15
May	4.15	1.81	1.95	.02	1.39	.50	28.9	1.56
June	4.07	2.03	2.22	.22	1.12	.07	22.56	.72
July	3.96	1.09	1.65	.09	1.36	.21	18.6	1.18
Aug.	4.43	1.42	2.48	.22	2.09	.42	11.58	.82
Sept.	5.58	2.07	2.71	.20	1.68	2.17	10.65	.98
Oct.	6.66	3.17	2.56	.34	1.61	.45	12.41	1.24
Nov.	5.43	1.56	2.29	.17	1.72	.71	13.43	2.05
Dec.	5.72	1.62	1.98	.28	1.87	.53	16.12	3.77
Jan.	6.80	2.71	2.42	.20	1.88	.32	14.19	1.43
Feb.	5.47	1.91	2.37	.10	1.50	.38	13.65	1.24
Total	62.13	22.92	28.76	2.49	20.16	5.67	203.92	17.86

Using this table as a basis of calculation, the labor on stock can be shown from a different standpoint--that of the animal unit. Having classified the various farm animals on the basis of feed eaten, one would inquire whether more labor is used in feeding and caring for a unit of hogs than in caring for a horse, which is also a unit. This inquiry is answered in the tables of Labor Per Animal Units.

Table No. 6 - Monthly Distribution of Labor Per Animal Unit.

Month	Work Horses		Milk Cows		Other Cattle	
	Man	Horse	Man	Horse	Man	Horse.
Mar.	6.31	1.0	20.50	.99	8.65	5.25
Apr.	7.21	.97	20.21	.29	7.90	2.60
May	7.36	.61	23.52	.38	5.84	2.10
June	7.33	.74	25.96	.28	4.70	.29
July	6.95	.62	23.78	.84	5.71	.86
Aug.	6.0	.41	25.00	.59	8.78	1.76
Sept.	5.73	.18	25.52	.51	7.06	.91
Oct.	5.4	.21	25.32	.89	6.76	1.89
Nov.	5.11	.30	26.36	1.56	7.22	2.98
Dec.	5.74	1.32	26.07	1.14	7.85	2.23
Jan.	6.18	1.37	24.18	2.16	7.90	1.34
Feb.	5.86	1.13	23.08	1.86	6.30	1.60
Total	75.18	8.86	264.10	11.39	84.67	23.81

These tables of labor on stock make it possible to estimate about how much labor will be spent on any class of stock during any month of the year under average conditions. Thus if a farmer is thinking of changing the kind of stock he is keeping, he can figure out how much extra help that stock will require, and

Table No. 7. - Monthly Distribution of Labor Per Animal Unit.

Month	Brood Sows		Other Hogs		Hens	
	Man	Horse	Man	Horse	Man	Horse
Mar.	14.49	1.55	31.26	10.9	19.4	2.1
Apr.	11.87	1.25	27.11	10.02	31.66	1.4
May	8.39	.86	17.66	7.7	35.33	1.91
June	9.55	.95	21.26	1.58	27.57	.88
July	7.10	.39	21.72	5.97	22.75	1.44
Aug.	10.66	.95	28.04	9.01	14.14	1.0
Sept.	11.65	.86	29.87	11.11	13.0	1.2
Oct.	11.01	1.46	35.90	17.08	15.15	1.51
Nov.	9.85	.73	28.13	8.11	16.4	2.5
Dec.	8.51	1.20	31.83	8.99	19.68	4.6
Jan.	10.41	.86	35.64	14.22	16.67	1.44
Feb.	10.19	.43	28.34	9.90	17.33	1.75
Total	123.68	11.49	336.76	124.59	248.99	21.73

also how the labor on the new class of stock will combine with the field labor. It may be possible to find a class of stock that will provide work for the time when there is not much employment for farm labor.

The total number of animals from which these figures were obtained are as follows:

1.	Work Horses	230
2.	Milk Cows	112
3.	Other Cattle	336
4.	Brood Sows	201
5.	Other Hogs	18343
6.	Hens	3384

CHAPTER II.





THE DISTRIBUTION OF LABOR ON DIFFERENT TYPES OF FARMS

Nearly every one will agree that the farmer does not have complete control of the distribution of farm labor. Conditions of weather, and of roads, and accidents of various kinds, disturb the farmer's carefully laid plans for directing his labor. However, it is desirable to call attention to the possibility of a farmer's affecting the distribution of his farm labor by a good cropping system, or by a combination of crops and stock, and to the advantages of such distribution.

The fact that a good choice of crops grown and of live stock kept can provide a fairly even distribution of labor, is shown by the records kept by these twenty-five farmers.

In the pages following will be found a number of charts showing the kind and amount of labor done during each month in the year. The first figure shows the total labor done.

The colors on the charts and the labor each represents are as follows:

	Maintenance
	Stock
	Other Production
	Crops

The second figure in each instance shows the variation in crop and stock labor. Accompanying each set of figures is a table showing the actual number of hours spent on each class of work, together with some information concerning the amount of crops grown and the stock kept. The labor income indicates fairly well

the success of the business, which is largely dependent on the skillful use of labor. The cost of the family living indicates to some extent the social conditions under which these farmers live, though it has little to do with the distribution of labor on the farm.

At this point a brief discussion of three distinct types of farms represented in the following figures will be necessary. These three types are as follows:

1. Grain Farms
2. General Farms.
3. Stock Farms.

In some classifications a farm is considered a certain type of farm from the receipts from live stock, or from crops. But they have been divided here according to the number of animal units kept. * Those farms of from 10 to 12 animal units have been considered grain farms, for this amount of stock usually consists of 5 or 6 horses, a cow or two, a few hogs, and some poultry. It is not enough stock to return any considerable income. These farms of 12 to 20 animal units have been considered general farms, for the returns from stock on these farms make up a fairly large part of the income. Most of these general farms were found to keep from 16 to 20 animal units. Those farms having 20 or more animal units were called stock farms, for it is evident that the main business of such farms was the production of stock.

* The classification on this basis has been found on investigation to parallel that made on basis of receipts. Data concerning receipts were not included in this study.

GRAIN FARMS

Total Man Labor. The distribution of labor on the grain farm is often difficult to handle. For certain crops at certain times demand prompt attention. Especially is this true of certain hay crops. Weather conditions so affect the possibility of work on crops as to make them either profitable or unprofitable. Here in the state of Missouri the first crop of alfalfa is very often lost on account of frequent rains at the time of cutting, and this loss has caused many farmers to become discouraged with that crop. Again, the average grain farmer, finding that he has plenty of time to plant his crops, plants as many acres as possible, even though he cannot, at a later season, command the amount of labor the crops require. Or, the kinds of crops grown are not always the ones that will best fit together from a labor standpoint. The farmer chooses them because the seed is on the place, or because the custom of that region is to grow certain crops. These customs make it difficult to introduce new crops, even though the new crops, which will supply feed of a similar nature to that supplied by the customary crops, will relieve the labor situation during May, June, and July. The farmer seems to pay more attention to the area that he can devote to crops and to the ease of planting, than to the amount of labor that will become necessary during the busy part of the season.

A study of the figures representing the labor distribution on farms Nos. 1 to 6 will bring out more clearly some of the mistakes made by the grain farmer. The most noticeable fea-

ture is the large amount of labor necessary in May, June, and July, and the irregular amount of labor needed during the other months of the year. Of course, any system of farming will require more labor in the summer months, for the work days are longer and growing crops demand a large amount of attention. But the farmer should make more provision for using his farm labor during the early and late months of the year. Even if the farmer himself is doing the work on the farm during those months, he should provide steady employment for himself. On one farm in Southern Missouri the hired hands are never idle during these months of less crop labor. Most of this time is spent in hauling manure from town in preparation for the wheat and corn crops of the following year.

These six grain farmers have met the labor situation in different ways and with different degrees of success. Some of them have studied their farms, and have succeeded in distributing the labor very evenly. Take the three farms Nos. 1, 2, and 3. The only two months when these farms have not provided labor to make the distribution very regular were February and August. February, being a short month, and also a winter month, could not be expected to show as much labor done as is shown in March or April. In August there is little labor on crops, and if the farm is fairly well improved, and is in good repair, there is not a very large amount of labor to do. But despite the arrangement of these two months, these three farms show labor rather evenly distributed throughout the year. On farms numbers 4, 5, and 6, little effort seems to have been exerted in trying to maintain a uniform supply

of labor. However, if we could eliminate the labor on Other Production on Farm Number 5, we should find that the total labor would not be much more unevenly distributed than of the first three farms.

As brought out before, the labor on any farm can be divided into four distinct classes. On most grain farms the maintenance labor is fairly uniform. Weather conditions, of course, and accidents may cause the maintenance labor to fluctuate from month to month. Stock labor, also, is quite uniform on the grain farms, for, being a lesser part of the farm business, it receives less attention. Thus the main factors influencing the labor distribution are the cropping system, and the labor on Other Production.

Let us observe the distribution of labor causes by the cropping systems on these grain farms. Farm No. 4 provides a fairly uniform amount of man labor from May 1st until August 1st, and then becomes very irregular. Horse labor also is very irregular after the 1st of August. Farm No. 1 shows a much better distribution, both of man labor and horse labor. This is a fair example of how a farmer can plan a cropping system which will give fairly uniform amount of work; for, since beginning to keep records, this farmer has made a careful study of his business, and has made some very good improvements. Farms Numbers 2 and 5 also provide a fairly good distribution of field labor. Farm No. 3 fails in its distribution in February, July, and August. From the yields on that farm--

17 bushels of corn, and 12 1/2 bushels of oats, and wheat, it would seem that some time in these months might be used in hauling manure and spreading it on the land. But situated as he is in a rougher section of the Ozarks, and not being near any source of a plentiful supply of manure, he has directed his extra labor to some Other Production, principally clearing. Farm No. 6 noticeably falls short in the work done during July and August, by both man and horse labor. This condition will always result when spring sown crops are the main products. The crops grown on this farm were corn, oats, cow peas, and soybeans--three crops which demand attention during practically the same parts of the season. The oat crop simply makes work for the early spring, and prolongs the labor from June into early July.

A very noticeable feature about the cropping system is the absence of the clover crop on all but one of these grain farms. Whether the farmers realized the fact that corn and clover conflict in their labor requirement, and left it out of their rotations on that account, is unknown. But they have two other legumes--cowpeas and soybeans--that prolong the field labor into the early fall and thus make a much better distribution. They could still improve their distribution of field labor by growing timothy which requires a large amount of labor during the month of July. Again, growing more oats would help to make more work during the early spring. Oats, however, are not always a profitable crop; though, if a farmer could grow 45 bushels per acre, as were produced on Farm No. 6, oats

Would be very profitable.

The majority of grain farmers, however, do not have enough land to practice a very extensive rotation. They depend primarily on one or two main crops to provide an income, and when the crops of one season are harvested, they find little to do until the following spring. Therefore, if the crops must pay for keeping a hand throughout the year in order to supply sufficient labor during the busy season, the cost of that crop will be very great, and often enough there will be no profit at all.

This situation has been met fairly well by most of these grain farmers. They have directed the labor to Other Production rather than let it be idle. On Farm No. 5 a new house was built after the 1st of August and during the early fall months. On Farm No. 3 much time was spent on clearing after the crops has been "laid by". In one instance, that of Farm No. 4, sheep were purchased and fed during the month of October. This helped the situation for that month, but did little to increase the amount of labor used in December and January.

Other Production, however, cannot be depended on to supply any uniform amount of labor. Very much depends on the ability of the manager in selecting various kinds of work. Certain improvements can be made during the winter months, or postponed until late summer and early fall. Often it is necessary to wait until the outcome of the crops is definitely known before any great improvements is made, and accordingly this work is usually done in the fall. Sometimes outside

work will provide work for months when there is less need for labor on the home farm.

Neighbors may need help in preparing for another crop of wheat, or there may be work on the county roads. Miscellaneous products, such as meats, fruits, and vegetables, may furnish labor which will be classed as Other Production. But while these can aid in providing a plentiful use of labor, yet they are secondary to the work on the crops.

During the summer of 1915, the writer spent some time in a certain county in the Southwest part of the state where the grain farm was the principal type of farm. There was a noticeable lack of a regular use of labor during the month of August. Many of the farmers were plowing for wheat, but seldom was there one found who was too busy to talk awhile. Small farms, with a relatively small number of improvements, with very little productive live stock, with horses on pasture when they should be working and a carefree lot of people, were the striking characteristics of that section. Having grown corn, oats, wheat, and timothy hay, they could hardly be persuaded to grow any legumes. Clover could not be very well grown on account of a tight subsoil. But cowpeas or soybeans could be grown. From the yields obtained it was apparent that some such crops were needed to build up the soil, if for no other reason.

Labor Per Man. In general, the problem arising from the heavy demand for labor at certain months the farmer meets in such a way as to work no hardship on the individual laborer. A farmer and his sons can usually prepare and plant all the

crops, but during the three months from May first until August first there must be some extra help. Most of this he will supply by hiring a hand for the three months and hiring neighbors or exchanging labor when the wheat and oats are harvested. Another problem arising from the unequal distribution of labor, the farmer does not usually meet very successfully. Unless the farmer is very consistent worker he will not provide steady work for himself and sons for the period after the first of August when the field labor is less important. Especially is this true of farmers who own their farms. They seem to think that since they are paying out no money for wages, their labor costs them nothing; and consequently they care little whether they do anything else after the crops are cared for.

Horse Labor Distribution On Grain Farms: Now let us consider briefly the horse labor situation. Here we find a very different problem; for while it may be fairly easy to supply extra man labor, yet it is very difficult to supply extra horse labor. On a strictly grain farm, the largest amount of work comes in May, June, and July, and a number of horses sufficient for this work must be kept during the entire year. Outside of those three months the horses work very little, most of them being turned on pasture. This condition necessarily makes the cost of horse labor very high; for if the horses work on little else than crops, the crops must pay practically all of the expense of keeping the horses the entire year. Farm Number 4 was poorly planned in this respect, for there was an average of 7.5 horses throughout the year to take care of 84 acres of

crops. Farm Number 1 met this situation fairly well, for the cropping system provides for a much longer period of employment for the horses. Farm No. 2 also provides fairly steady employment of horses, though in this case the outside labor of a mail route did more to maintain the labor than did the cropping system.

The average hours per day that the horse worked on these first six grain farms represented here varied from 2.1 to 5.26. In the case of the farm^{on} which the average work was 5.26 hours per day, the time given to Other Production had more influence on the amount of work done than did the crop labor. But it is not always possible to have such work every year. One year there may be plenty of outside work, either for neighbors or on the roads for the county. Or much time may be spent during the fall of one year on improvements which will not be repeated the next year. More attention, therefore, should be given to the distribution of horse labor, for if each horse can average one hour more per work day in the year, it will often cut the cost of horse labor from 20 to 50%.

THE GENERAL FARM.

Total Labor. The manager of general farms, on the other hand, usually avoids a number of the mistakes made by the grain farmer. Labor on crops and stock do not conflict as labor on two different crops, but instead fit together to produce fairly even distribution throughout the year. However, the general farm is not an ideal farm from the standpoint of distribution of labor. Though it does escape some weak points

of the grain farm, yet even on a general farm there are times when there is an insufficient amount of work to keep the workmen busy. Very often this is not so much the fault of the farm as it is of the man in charge. For a farm may be so situated and so adapted to certain crops and live stock that it admits of a plan providing for a fairly uniform labor distribution. Yet the farmer hesitates about following such a plan, because he has become accustomed to certain crops and stock and does not want to change.

The first thing that will impress one as he studies the figures representing the labor on Farms Nos. 7 to 13 is the fact that there seem to be two general periods in which a large amount of labor is used. These periods are the months of May, June, and July, and the months of September, October, and November. In order to have sufficient help on such farms when the critical times come, it becomes almost necessary to hire it for seven or eight months, instead of hiring extra labor for three months at a time. Were this ~~extra~~ help used efficiently throughout ~~the~~ entire period, ^{it} ~~this extra help~~ would not be an objection^{able}, for a man employed for eight months will generally do better work than the man employed for a shorter period. In most instances, this inefficient use of labor is due to a poorly planned cropping system, that provides little or no labor for the month of August. Take for example the field labor on Farm No. 11. During the month of August there is barely a week's work for one man, while during the months before and after there is plenty of field labor. However, this farmer has met the sit-

uation very well, for he took advantage of this time to build a new barn. But a farmer cannot build a new barn every year, so a more definite plan should be made for labor during that month. Again, on Farm No. 13, we find the man labor for August very well planned, both as to field labor and as to total labor. But horse labor has been poorly utilized. On this same farm, there is another serious defect in the management of horse labor; for during the five months of March to July inclusive, two thirds of all the horse labor was done. Even a grain farm could hardly show a more unequal distribution of labor.

The labor distribution for Farm Number 7 is very much influenced by the Other Production labor, which consisted principally of road work. But a study of this farmer's crop and stock labor systems shows that the distribution of labor on this farm was just as poorly planned as some of the others. Farm Number 8 shows a better utilization of both man and horse labor, though the total labor is influenced to some extent by the regular labor on about 10 dairy cows. Nevertheless, this farmer distributes his crop labor much better than some of the others. This farmer has been keeping records for the last three years and studies his farm very carefully. Farm Number 9 again shows plainly the two periods of most labor which the general farmer must manage to meet. Farmer No. 9 seems to have paid little attention to labor distribution in his cropping plan; for the crops grown are corn, oats, cowpeas, and alfalfa. Of course, the choice of crops for this farm may be influenced to some extent by its location in a rather broken part of the Ozarks.

But if such a system as is being followed is not practical, some effort should be made to change it so as to give better results. With its 96 acres of pasture, it should make a fairly good dairy farm, for the product could readily be disposed of.

Size: Again, the general farm is usually larger than the grain farm, which makes it possible to keep more stock, and have a better cropping system. Of the farms studied, it was found that the grain farm was about 150 acres, while the general farm was near 195 acres. And in Missouri this will be found to be about as represented by these farms studied. A recent survey of a grain farming section showed the farms to average much smaller than the general farms of another section of the State.

Labor Per Man: While the general farm does distribute the work less unevenly through the year than the grain farm does, yet it does not use labor any more efficiently than do the other types of farms. Too often such farmers are willing to work hard and long when it is absolutely necessary, but do not make as much effort to work steadily when crops do not demand it. On Farm No. 11, however, the labor seems to have been utilized very well; for on very few farms does a man average nearly 12 hours every work day of the year, as does the farmer on Farm No. 11.

Hours Per Horse: In many instances, on the general farm, the average number of hours worked per horse is small, not because of a poor distribution of labor, but because that farmer keeps more horses than are actually needed on that farm. This

is especially true on Farm No. 10. Here each horse averaged only 2.76 hours per work day, simply because there were more horses than necessary. With only about 100 acres of crops, it should not have been necessary to keep the 9.75 head of work stock that were kept on this farm. Four good work horses should have taken care of most of the work. However, the mistake in management here is more apparent than real; perhaps some of these horses were being held for sale; but, since they were being worked during the busy season, they were classed as work horses and so reduced the average hours worked per day.

STOCK FARMS.

This study first considers that stock is determined by the number of animal units, irrespective of the kind of the units. In the second place, this study has considered one particular type of stock farming, i.e., the dairy farm.

Section I. Stock Farms in General.

Total Labor: The distribution of both man and horse labor that is possible on the stock farm is even better than could be attained on the grain or general farms. For usually sufficient crops are grown to furnish most of the feed for the stock kept. Producing these crops provides plenty of labor from early spring till late in the fall. Then during winter, the stock will provide labor for the men, and though the amount of such labor will not equal that of crop labor in May or June, yet the work will be fairly uniform from the time the last crop is harvested in the fall until crop season starts in the spring.

However, the labor problem is not completely solved by growing crops and keeping live stock. For during the busy crop season there is again more labor required than is usually available at the beginning of the season. Therefore extra help will be hired for the months of May, June, and July. If the farm is large enough to provide labor for an extra hand the year around, better help can be obtained, and the labor situation will be much easier to manage. The main advantage, however, of feeding stock is that this work is done usually when there is little other labor to be done. During bad weather, it is still possible to feed a large number of cattle or hogs, and in this way to secure an income from time that on the grain farm, if used at all, is used with small productivity.

There are several good examples of stock farms among the farms represented here. Farm No. 14 is a farm of 160 acres in Northwest Missouri that produces cattle and hogs. If the two figures of field and stock labor were combined, they would show a fairly regular distribution; even in the case of the horse labor, there is more productive labor on this farm during the winter months than on the grain farms. There happened to be a large variation in the total labor for August, however, on account of building a new silo. Much of this work, though, was done by neighbors who could readily spare the time from their own farms. As an illustration of efficient use of man labor here, mention might be made of the fact that the average hours per day put in by each workman throughout the year on this farm was 10.6. But the average hours per day per horse was less than the average, being only 2.68.

Farm No. 15 shows about as good a distribution of man labor as could be expected. Other Production again seems to have effected the distribution, rather than the labor on crops, and stock, for the field labor figure shows a rather irregular distribution. Farm Number 16 also shows a very good distribution, the large amount of Other Production being the clearing and marketing of wood.

A study of the labor on stock will show that there is little variation in this kind of work. More attention, therefore, must be given to the cropping system. In very many instances distribution of crop labor has been planned very carefully. Farms Nos. 19, 14, 18, and 17 show very good distribution of field labor. Nearly all of the other stock farms show a high labor requirement for May, June, and July, September and October, with a much lower requirement during the other months. Of course, there will always be some variation, but the field labor on the four farms mentioned above shows to what extent it is possible to distribute the labor with fair regularity.

Thus we find that it is easier to secure a good distribution of labor on the stock farm than it is on the other types of farms. But in actual practice, the stock farmers do not always achieve successful labor distributions. While the main product of a farm may be some one kind of stock, yet the farmer must pay more attention to production other than crops if he would secure the best labor distribution. The choice of stock to produce must depend on the kind of crops that can be grown; and more con-

sideration must be given to the economic production of crops. For if crops are produced at a relatively high cost, and sold to the stock at about the actual cost of production, the stock will have to make very good use of this feed, if the farmer is to make any profit on the feeding operations.

Horse Labor: There is one feature of the stock farm that is brought out by nearly all of these farms. That is the fact that while crops and stock may produce a fairly uniform demand for man labor, yet this combination does not utilize well the horse labor. A study of the stock labor figures will show that during the winter months more man labor is needed than during the summer months. But very little work is provided for the horses. What horse labor is required for stock is quite uniform, and is often too small to keep many horses busy. In most cases the stock is housed near where the feed is stored, and makes little work for the horses. Even with the best management the horse labor used in caring for stock cannot utilize the full amount of horse labor that is demanded for crops during the summer. Therefore, in order that the horse labor be more uniformly distributed, Other Production must be adjusted with crops.

Section II. - The Dairy Farm.

Total Labor: There is one special phase of stock farming that tends to produce a very good distribution of both man and horse labor, and while this kind of stock farming is not possible on every farm, yet some change in that direction might help to better the labor distribution. This special kind of farming is the dairy farm, as represented by Farm No. 17. A study of the total labor on this farm will show a fairly even distribution.

Even the horse labor has been very well utilized; there are only the three months of December, January, and February when the total horse labor was much below the average. This uniformity of horse labor is due primarily to the cropping system, as is shown by the field labor figure. Here again horse labor on stock is of minor importance. Man labor on cows seems to be fairly uniform, so that the only problem in the management of man labor is in the matter of field labor. The distribution of field labor has been very well affected here, for filling silos provides work for the latter part of August and September. Besides being evenly distributed, the man and horse labor was efficiently used. The average hours worked per day by each man was 10.6, the lowest average being 9.7 hours per day in January, and the highest 11.8 in September. Horse labor varied from 2.4 per day in January to 5.27 in October, the average for the year being 4.27 hours per day.

THE AVERAGE FARM.

The average distribution of labor, both of man and of horse, on all these twenty-five farms is fairly uniform. But the distribution of labor is by no means ideal. A fair average for these farms in the aggregate does not mean that most of these twenty-five farmers are meeting successfully the problem of labor distribution. One month the conditions on all farms may be very desirable, and the average will show a highly desirable condition. Another month part of the farms may show a desirable condition, while the remainder will appear unfavorable. An average of these will show a mediocre condition--neither very

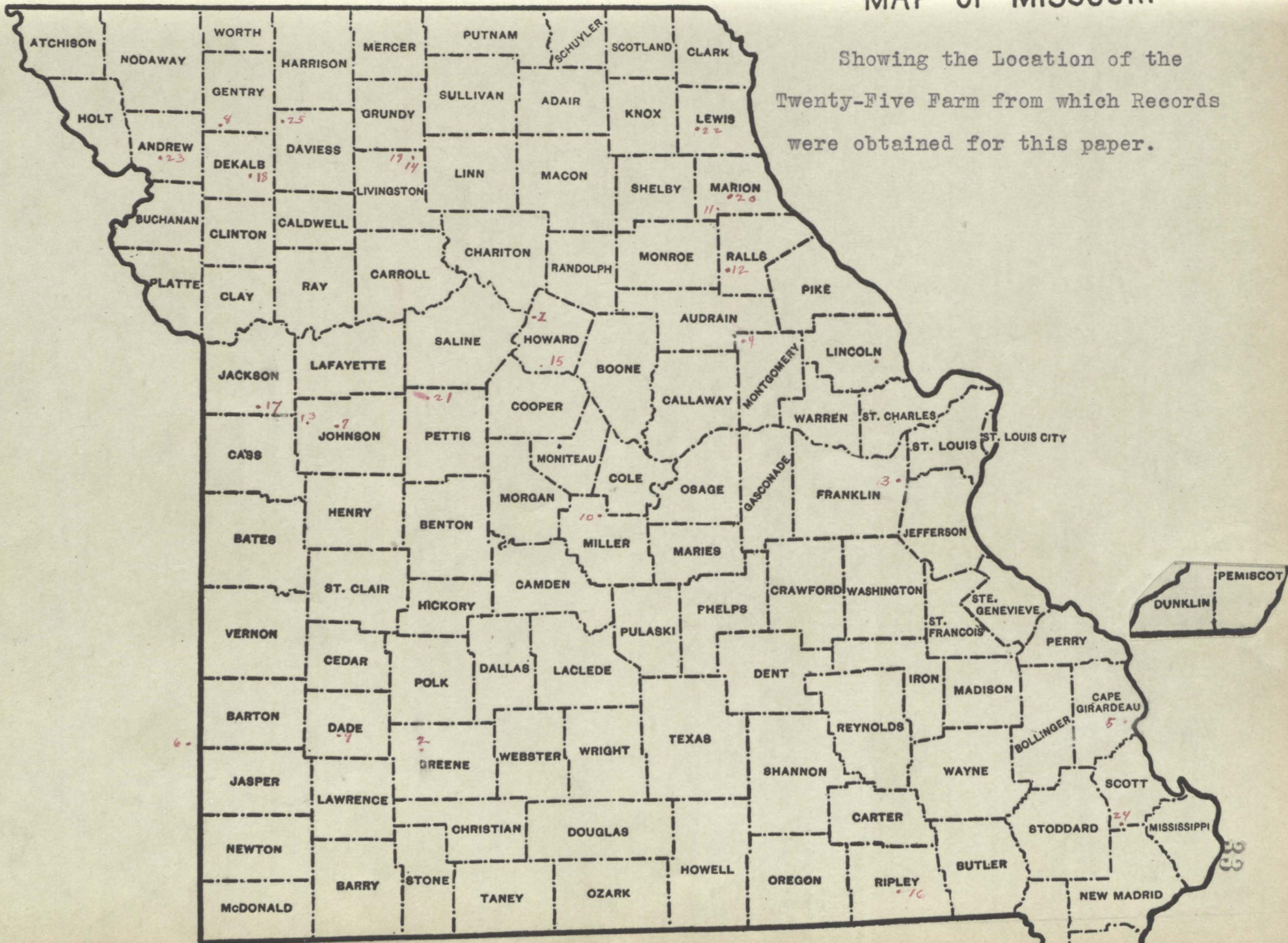
good or very bad. Then if all the farms show an undesirable condition for any one month, that will produce an undesirable average for the month.

Thus we notice that the average farm represented here is not an ideal. There is still that absence of sufficient labor to maintain the total labor in August, and from the first of December to the first of April. There is also that congestion of crop labor during May, June, and July, with little to do during the month of August. The dairy farmer has improved this situation by cutting corn for silage during the month of August. The grain farmer spends much of the same time preparing his land for wheat. Still others use this time for hauling manure in preparation for the coming corn crop. More of the time from December first to April first could be used in hauling manure, though with some farmers this is not always possible.

During these months, when crops and stock demand less attention, more labor must be provided in the form of Other Production. Many improvements could just as well be made during these months as during the summer. Of course, posts cannot be very easily driven into frozen ground, and inclement weather may prevent out-door work altogether. But many conveniences can be made if the farm has a work shop. Tools and machinery can be thoroughly worked over, so that there will be a minimum amount of maintenance on this equipment during cropping season. Seldom is a farm found that is too well improved or too fertile as to soil. Much of the labor incident to fertilizing the farm can be carried on during these months.

MAP OF MISSOURI

Showing the Location of the
Twenty-Five Farm from which Records
were obtained for this paper.

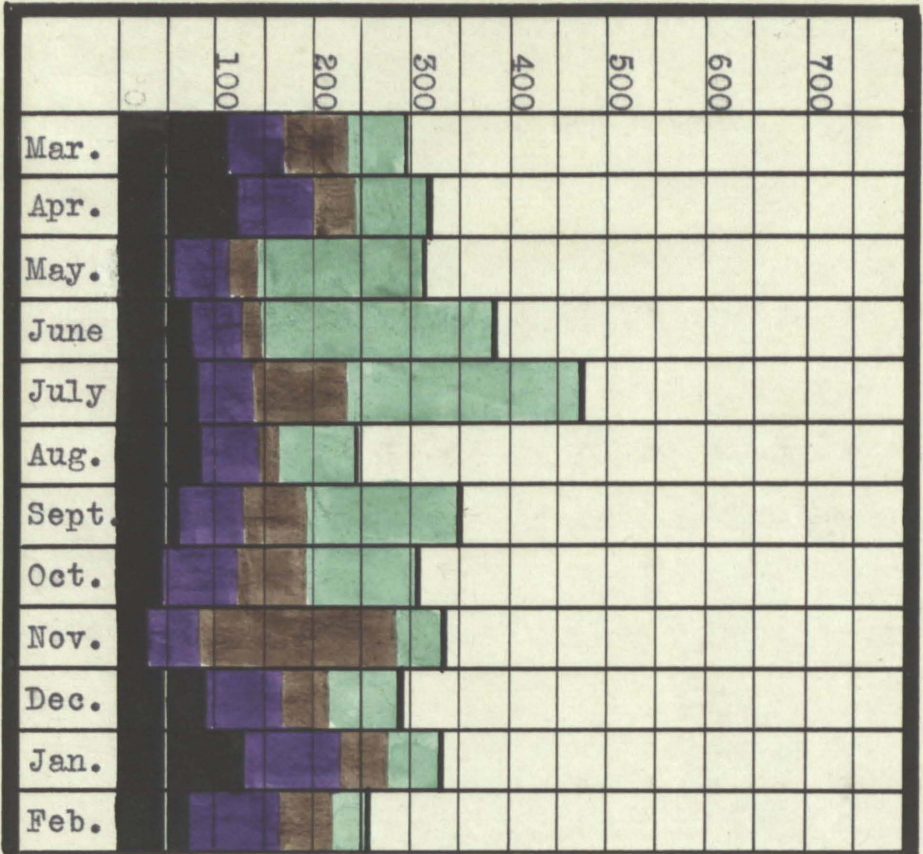


Data Sheet For Farm No. 1 - Grain Farm.

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar	114.	87.	58.25	12.	235.75	151.	63.	82.	298.75	233.	9.9
Apr.	121.5	71.	78.	--	244.5	171.5	74.	188.	318.5	359.5	11.7
May	53.5	44.5	60.5	10.	145.5	67.5	168.5	495.5	314.	563.	11.2
June	70.	45.	53.5	--	148.5	61.5	235.5	388.	384.	449.5	11.6
July	79.25	37.5	56.25	--	237.	200.5	233	244.5	470.	445.	11.7
Aug.	90.25	114.	56.25	--	168.5	138.	79.5	190.5	248.	328.5	9.0
Sept.	61.	109.	68.5	1.	195.	248.	156.5	164.	351.5	412.	10.0
Oct.	48.5	106.5	73.75	3.	196.25	217.5	114.5	395.5	310.75	613.	10.3
Nov.	27.5	57.	50.5	--	285.	102.	49.	96.	334.	198.	10.4
Dec.	91.5	118.5	78.5	30.	213.5	152.5	77.5	177.5	291.	330.	9.6
Jan.	128.25	59.	99.75	8.	279.25	148.5	52.5	93.	331.75	241.5	10.3
Feb.	74.	43.	91.	9.5	221.5	146.5	32.5	10.	254.	156.5	9.9
Total	959.25	1892.	1824.75	73.5	2570.25	1805.	1336.	2524.5	3906.25	4329.5	10.4

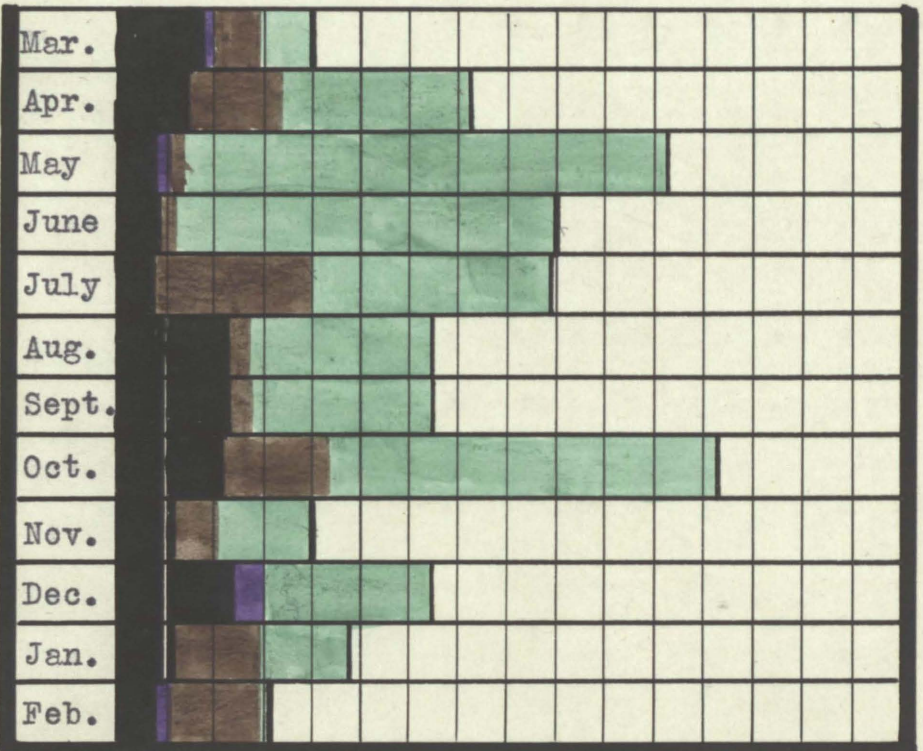
Total number of acres :	116.6	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	33.75	Horses	5.	5.
" of corn :	26.	Cows	5.4	1.87
" " oats :	2.5	Other Cattle	7.25	1.51
" " wheat :	41.25	Brood Sows	7.16	1.68
" " clover :	0.	Other Hogs	26.	2.83
" " other hay :	6.	Sheep	0.	
" " cowpeas :	1.5	Poultry	0.	
" " soybeans :	0.	Labor Income :	\$1164.63	Total A. U. 12.89
" " alfalfa :	0.	Cost of Family Living :	\$1274.	

Men Hours

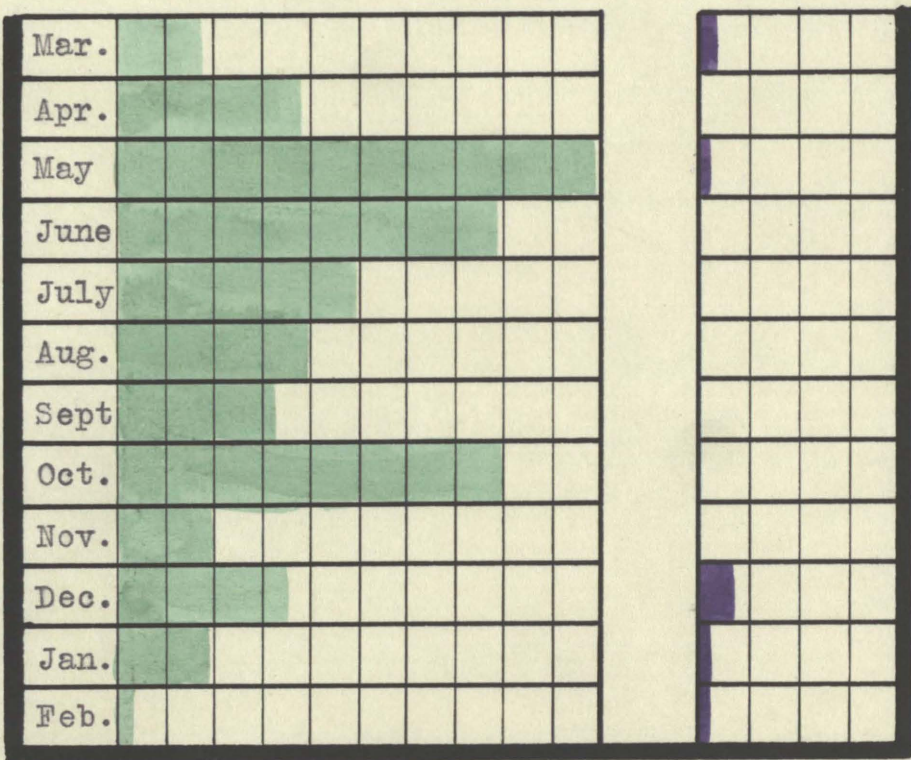
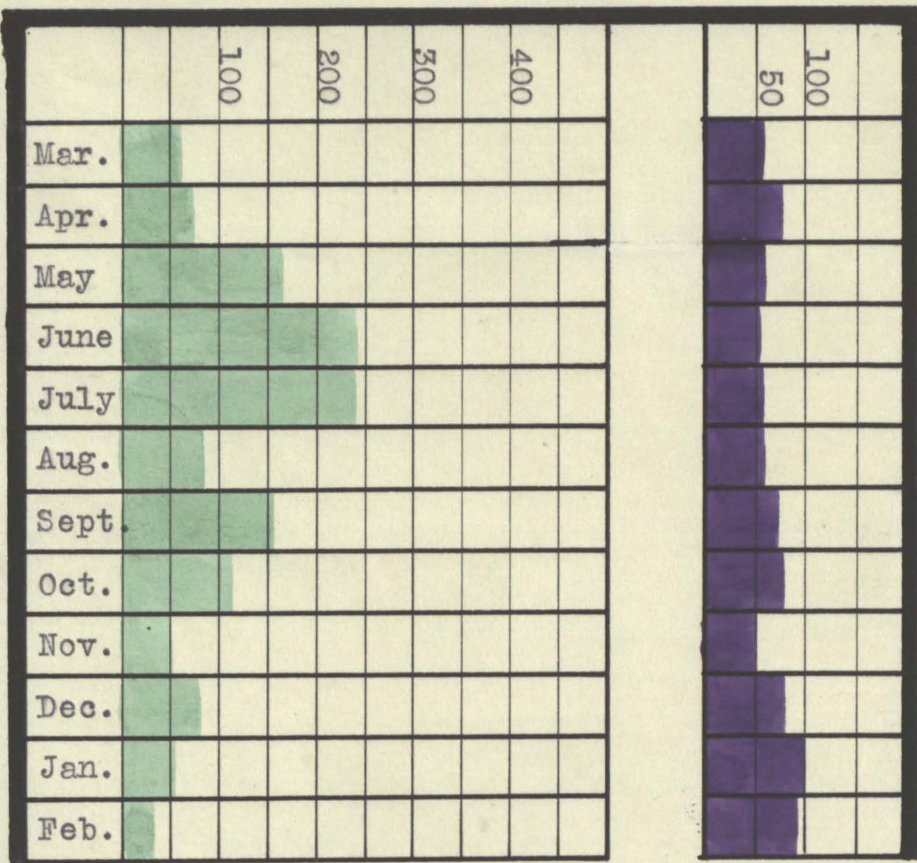


Total Labor Farm No. 1

Horse Hours



Man Hours
Field and Stock Labor Farm No. 1

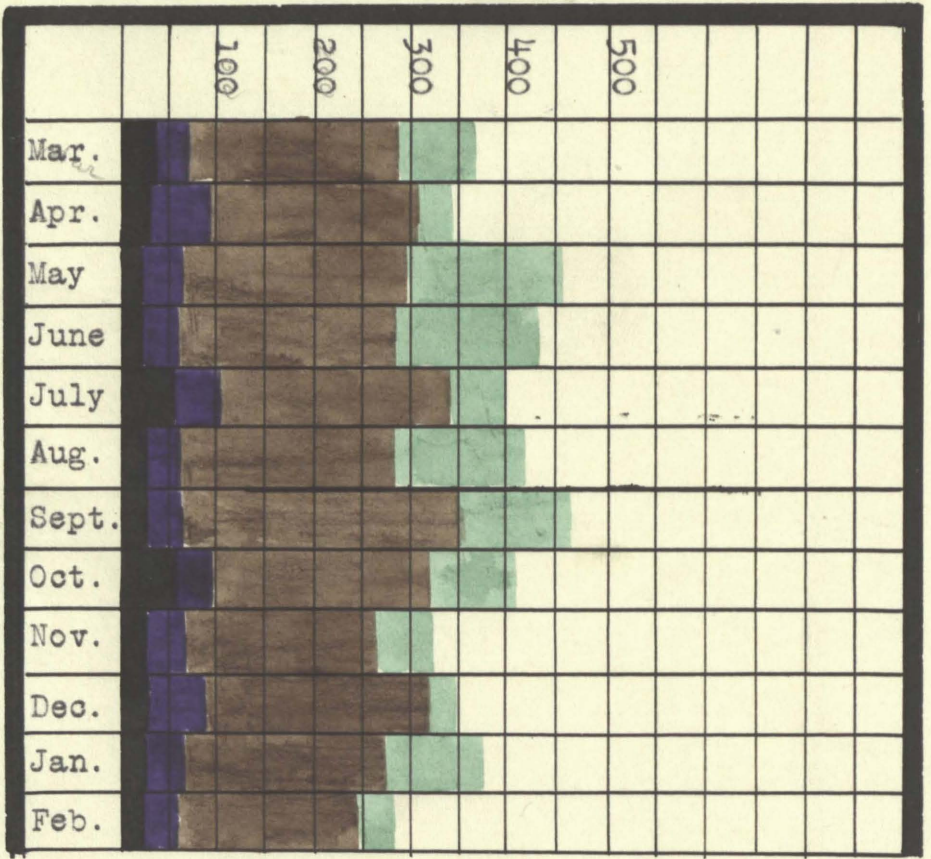


Data Sheet For Farm No. 2 - Grain Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	28.	-----	36.	-----	272.	174.	104.	40.	376.	214.	8.6
Feb.	23.	-----	36.	-----	243.	138.	38.	28.	281.	166.	8.5
Mar.	35.	-----	38.	-----	283.	166.	90.	86.	373.	252.	9.2
Apr.	30.	4.	61.	-----	306.	170.	34.	68.	340.	238.	8.7
May	20.	-----	48.	-----	296.	206.	157.	298.	453.	504.	8.5
June	24.	12.	41.	-----	273.	168.	158.	300.	431.	468.	8.3
July	58.	16.	43.	-----	338.	206.	62.	92.	400.	298.	8.3
Aug.	27.	18.	36.	-----	287.	174.	136.	272.	423.	446.	9.1
Sept.	24.	12.	35.	-----	347.	322.	113.	178.	460.	500.	8.7
Oct.	57.	38.	34.	-----	317.	200.	96.	174.	413.	374.	8.6
Nov.	27.	16.	41.	-----	262.	162.	55.	110.	317.	272.	9.5
Dec.	33.	24.	50.	-----	313.	214.	30.	60.	341.	274.	8.4
Total	386.	140.	499.	-----	3537.	2300.	1073.	1706.	4608.	4006.	8.7

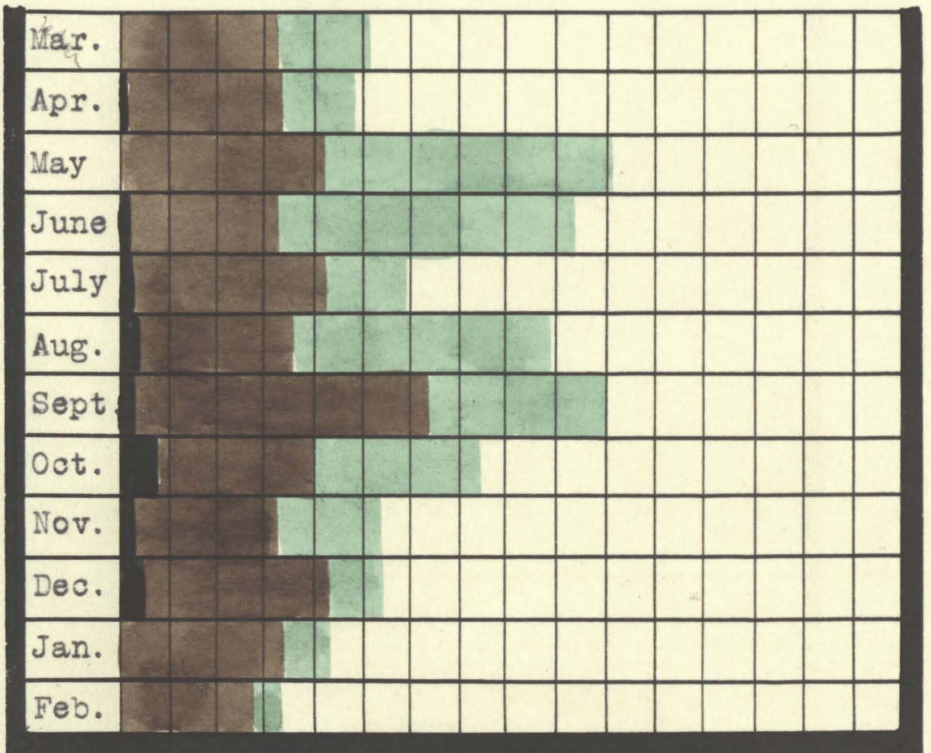
Total number of acres :	72.5	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	28	Horses	4.	4.
" of corn :	22	Cows	3.83	1.33
" " oats :	0	Other Cattle	11.75	3.22
" " wheat :	12.5	Hogs	1.5	.35
" " clover :	0	Sheep	17.	.75
" " other hay:	5	Poultry	187.	1.53
" " cowpeas :	5	Labor Income :	-\$111.	Total A. U. 11.1833
" " soybeans :	0	Cost of Family Living :	785.	
" " alfalfa :	0			

Man Hours



Total Labor Farm No. 2

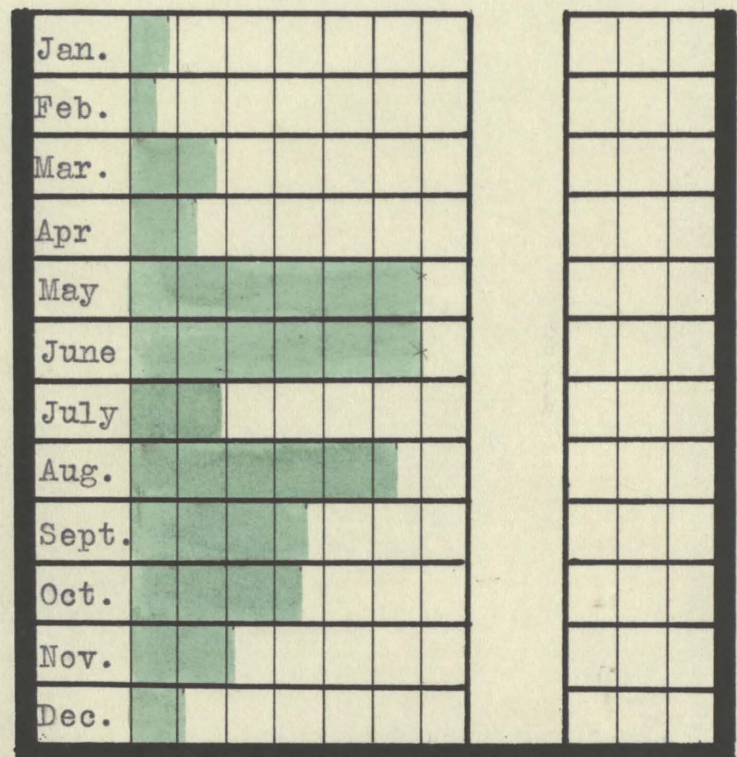
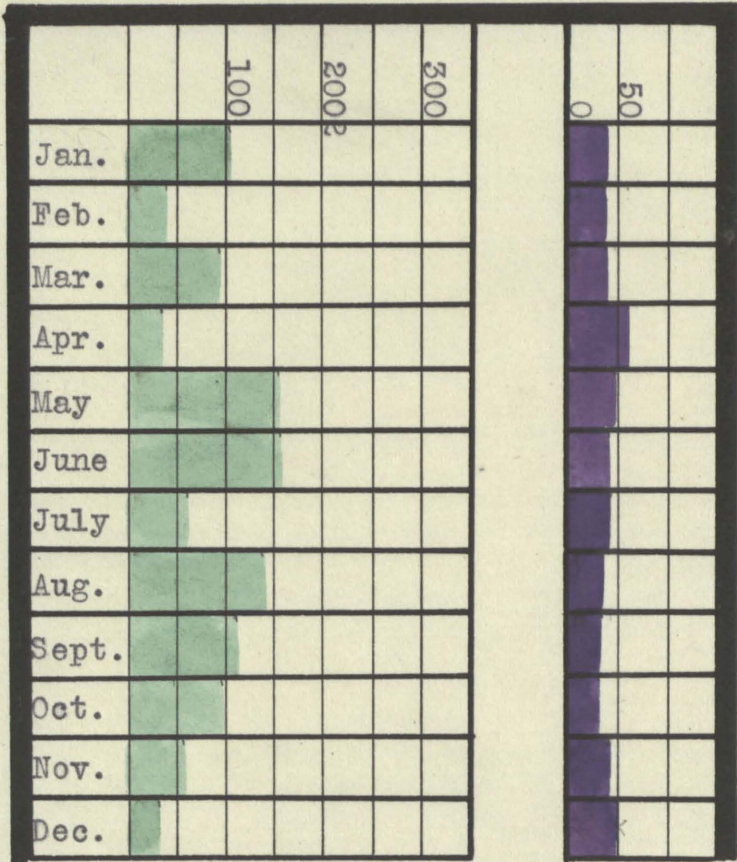
Horse Hours



Men Hours

Field and Stock Labor Farm No. 2

Horse Hours

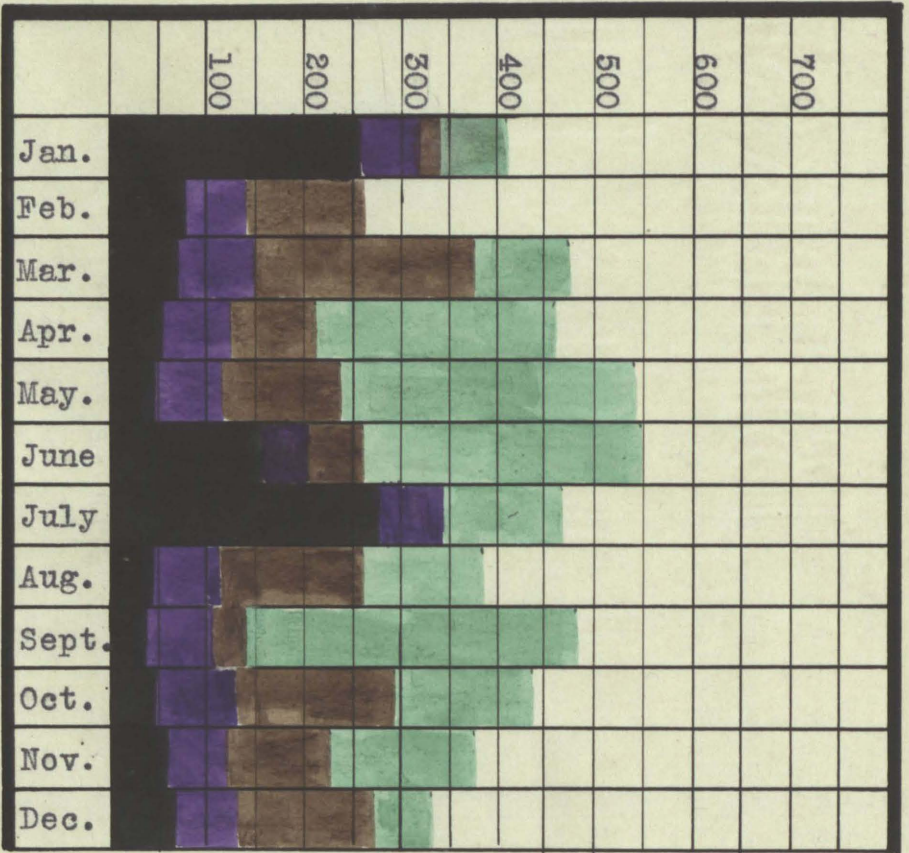


Data Sheet For Farm No. 3 - Grain Farm

Month	Maintenance		Stock		Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	257.75	47.	66.	-----	341.	82.	66.5	133.	407.5	215.	8.8
Feb.	75.5	53.	63.75	1.	257.	81.	2.	4.	259.	85.	7.8
Mar.	69.75	55.	79.75	-----	379.5	197.	94.	171.	473.5	332.	9.3
Apr.	53.	23.	68.75	-----	208.	129.	250.	460.	458.	589.	10.9
May	47.25	51.5	68.25	4.	235.	164.	305.5	470.	540.75	634.	10.4
June	156.	41.	52.5	-----	257.	107.	290.5	397.	547.5	504.	9.8
July	280.	56.	63.75	12.	343.	97.	126.	121.	469.	218.	9.2
Aug.	45.25	35.	62.75	6.	255.	165.5	128.5	143.	383.5	308.5	8.3
Sept.	36.	26.	64.	8.	138.	99.5	343.5	405.	481.5	504.5	9.8
Oct.	48.	58.5	71.	12.	293.	225.	143.	213.	436.	438.	9.5
Nov.	59.	67.	60.	-----	223.	141.	157.	61.	380.	202.	8.6
Dec.	67.5	32.	62.	-----	272.75	97.	57.	34.	329.5	129.	8.4
Total	1195.	545.	782.5	43.	3203.	1584.	1963.5	2612.	5166.5	4196.5	9.2

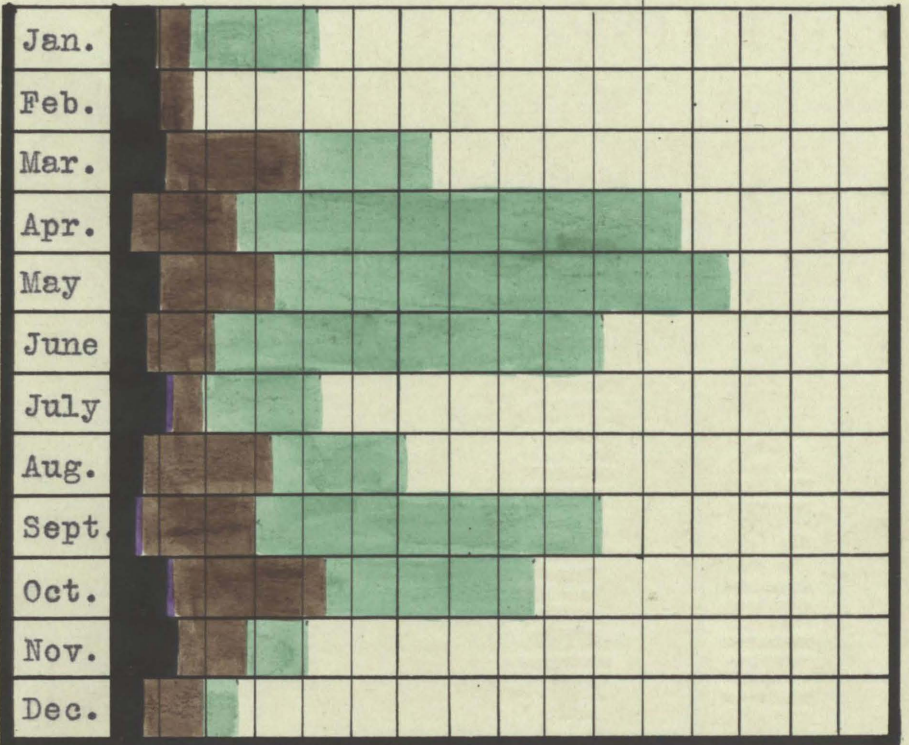
Total number of acres :	200	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	84	Horses	4.	4.
" of corn :	27	Cows	2.25	.78
" " oats :	6	Other Cattle	4.83	1.54
" " wheat :	19.5	Brood Sows	3.	.70
" " clover :	0	Other Hogs	12.5	1.71
" " other hay :	8	Sheep	23.25	1.63
" " cowpeas :	0	Poultry	94.	.77
" " soybeans :	0	Labor Income :	\$587.	Total A. U. 11.12
" " alfalfa :	0	Cost of Family Living :	808.	

Man Hours

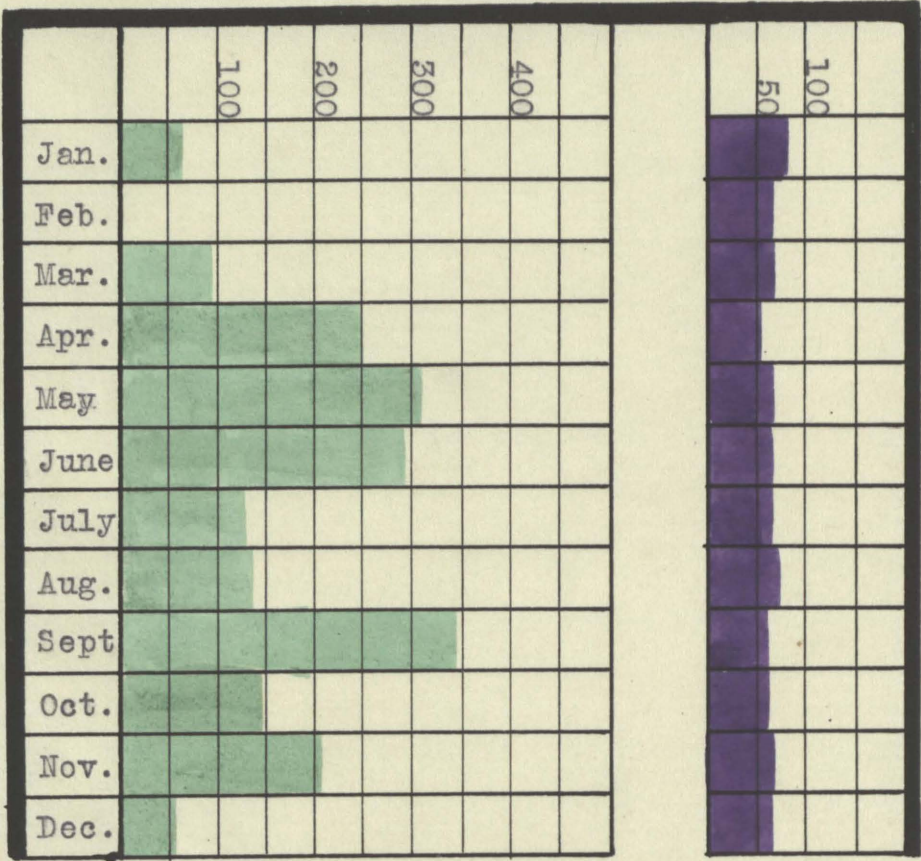


Total Labor Farm No. 3

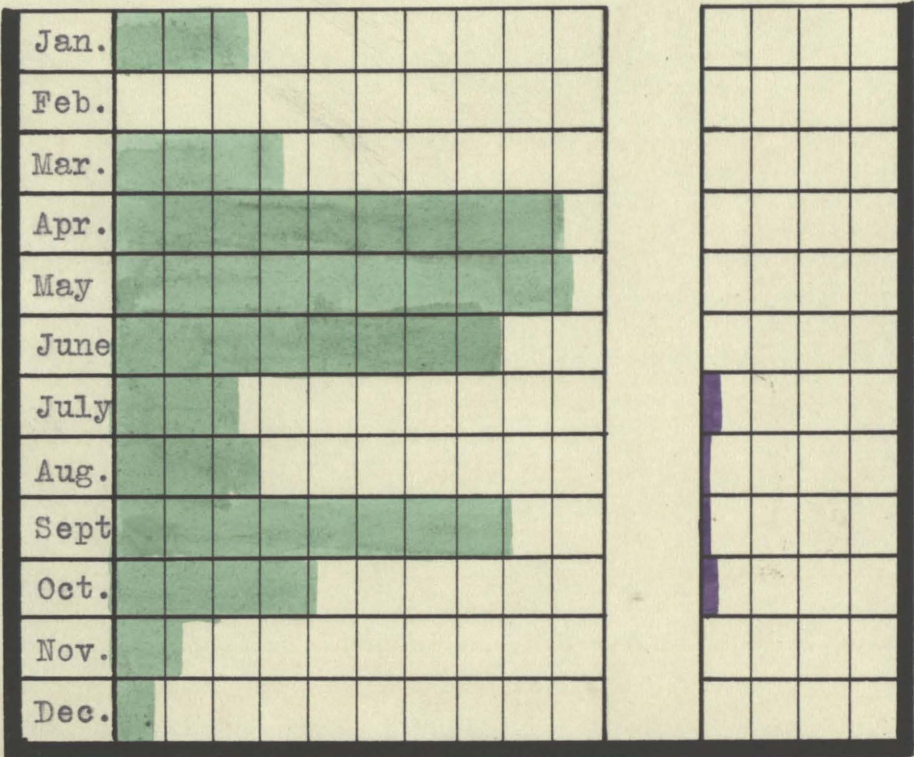
Horse Hours



Men Hours
Field and Stock Labor Farm No. 33



Horse Hours



Data Sheet For Farm No. 4 - Grain Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Apr.	237.	86.	94.	23.	389.	158.	128.	414.5	517.	572.5	10.0
May	148.	59.5	91.75	48.	259.25	118.5	324.5	1039.	583.75	1157.5	11.0
June	256.5	108.	63.5	43.	333.	159.	300.	690.5	633.	849.5	12.3
July	176.	85.	24.5	8.5	344.	184.	272.25	543.5	616.25	727.5	11.7
Aug.	177.5	100.	67.25	34.75	351.5	196.25	81.	290.	432.5	486.25	12.0
Sept.	98.	63.5	91.5	24.	333.	175.	67.5	123.	400.5	298.	9.1
Oct.	71.5	69.	218.	135.5	358.	211.	35.	52.	393.	263.5	10.3
Nov.	103.5	71.5	27.	4.	220.	116.5	152.5	236.	372.5	352.5	9.7
Dec.	108.5	38.5	42.25	30.	207.25	91.5	4.	8.	211.25	99.5	7.3
Jan.	84.5	37.	17.5	11.	150.5	71.	6.	12.	156.5	83.	5.4
Feb.	196.	40.	22.	-----	328.5	88.	-----	-----	328.5	88.	7.6
Total	1657.	758.	759.25	361.75	3642.75	1735.25	1397.75	3492.5	5040.5	5227.75	9.9

Total number of acres : 152
 Acres in pasture : 50
 " of corn : 35
 " " oats : 14
 " " wheat : 10
 " " clover : 0
 " " other hay : 0
 " " cowpeas : 14
 " " soybeans : 11
 " " alfalfa : 0

Class of Stock
 Horses
 Cows
 Other Cattle
 Brood Sows
 Other Hogs
 Sheep
 Poultry

Ave. Number
 7.25
 1.
 0.
 2.33
 21.83
 0.
 123.

Animal Units
 7.25
 .54
 .55
 3.0
 1.0

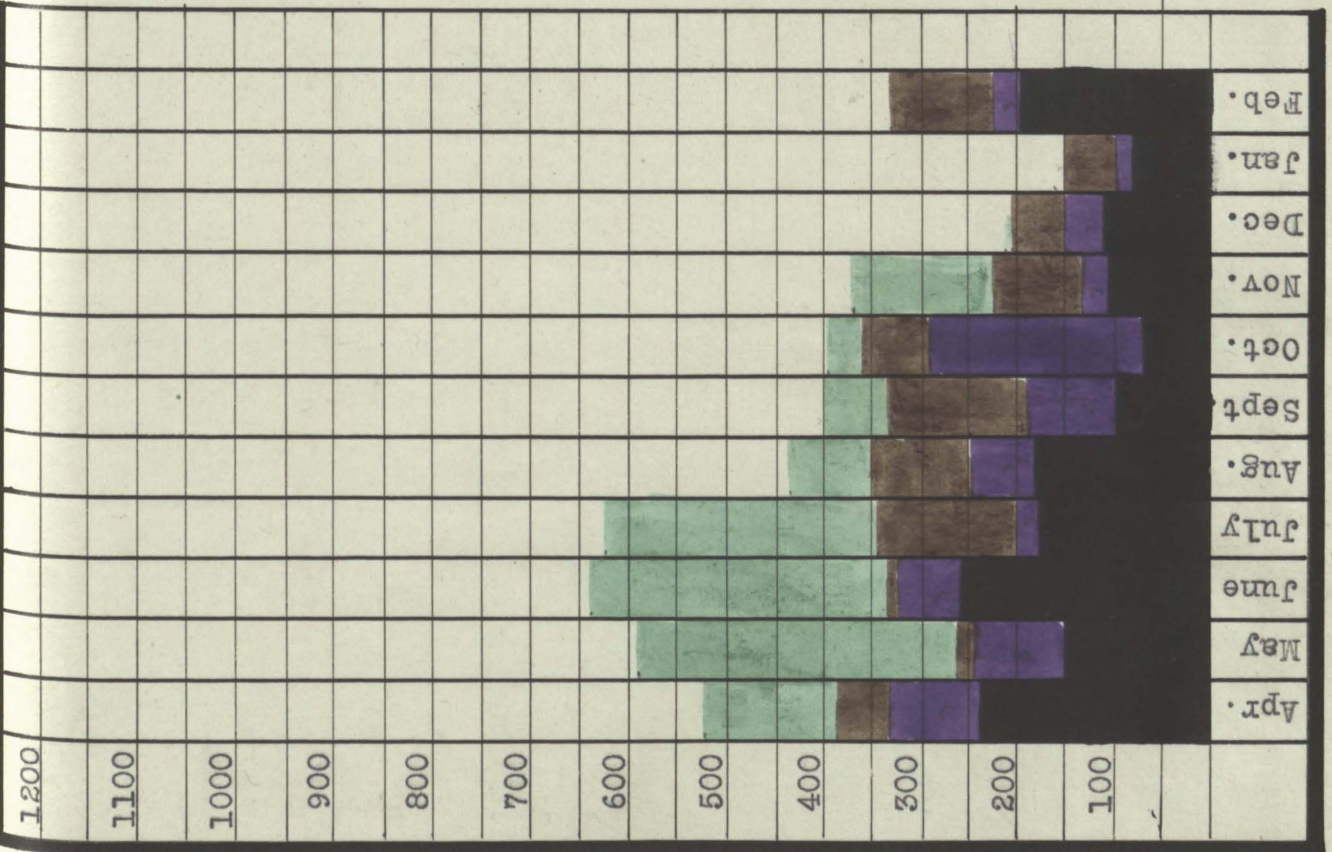
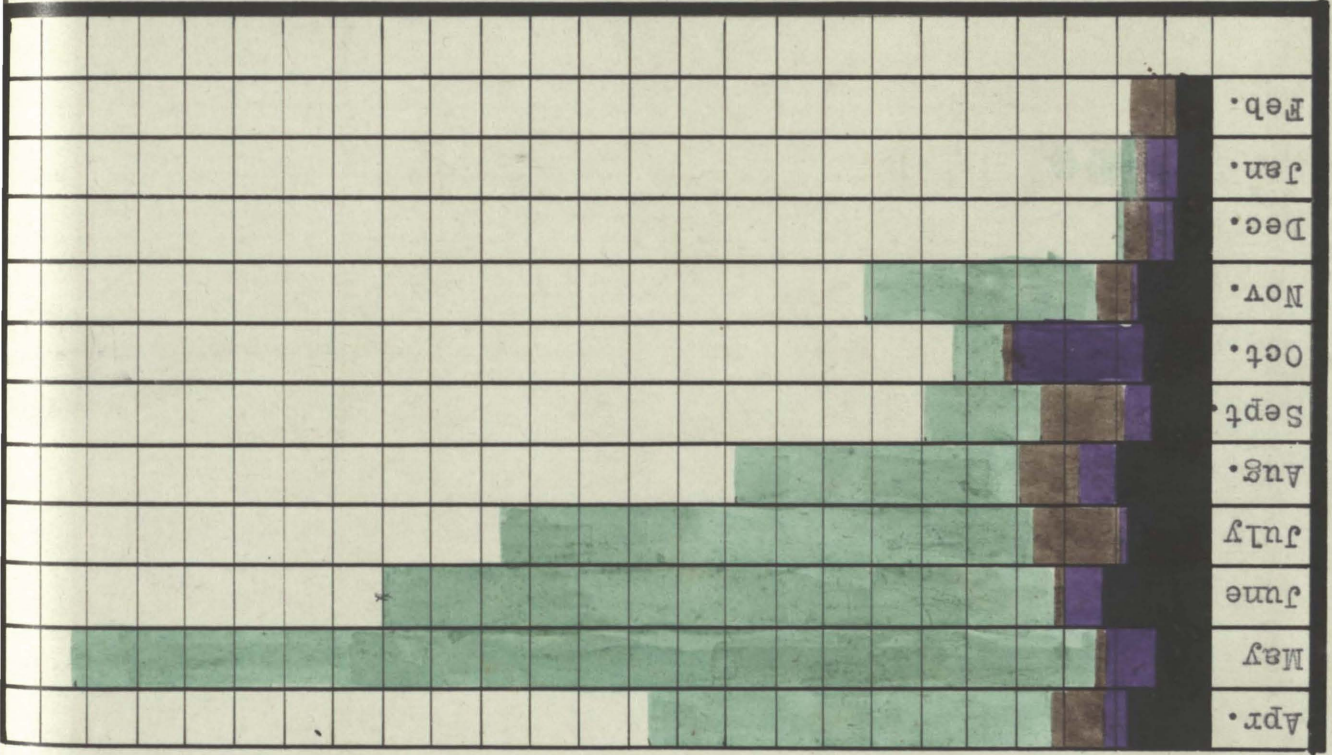
Labor Income : -\$498.
 Cost of Family Living : \$527.

Total A. U. 12.34

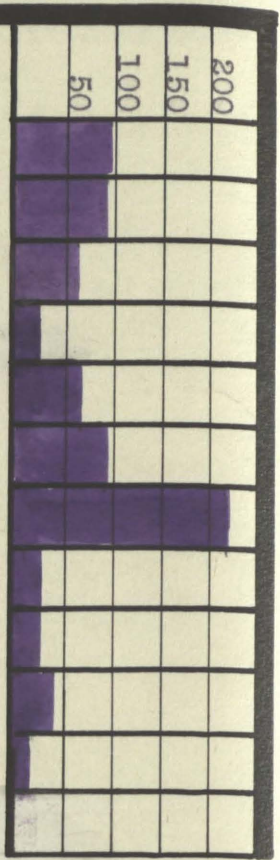
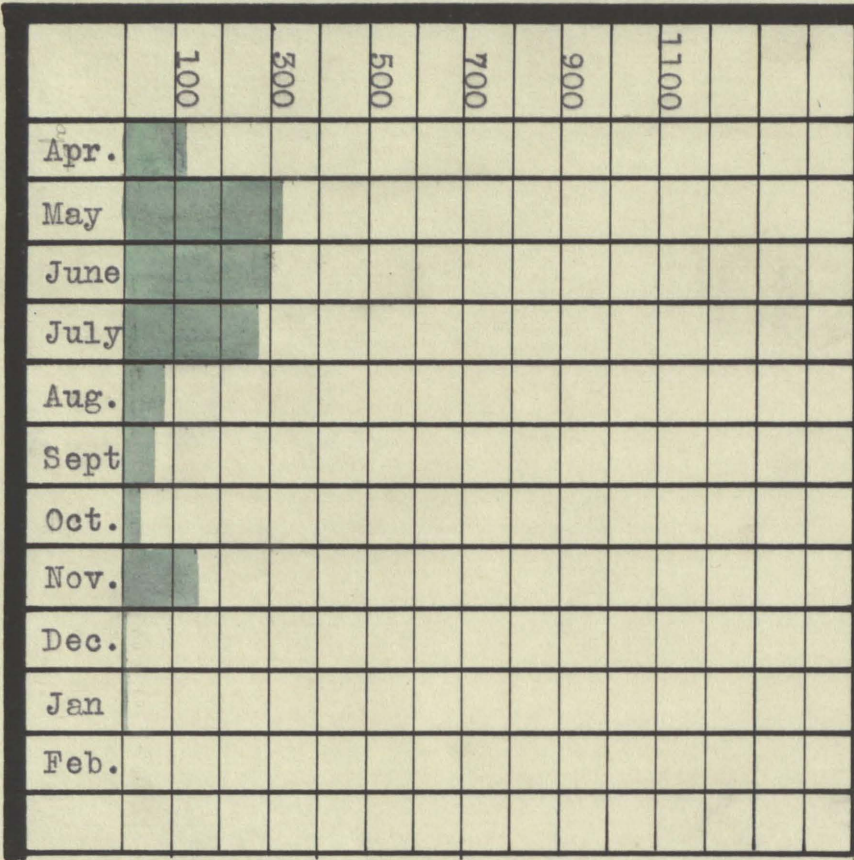
Horse Hours

Total Labor Farm No. 4

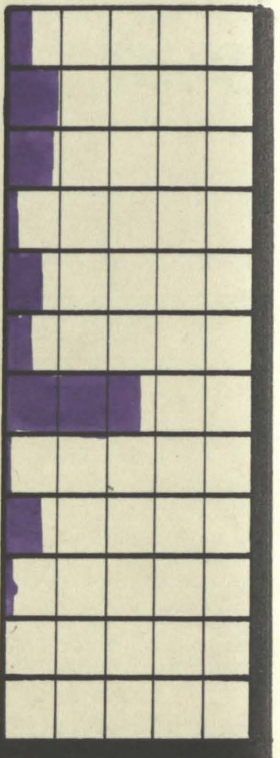
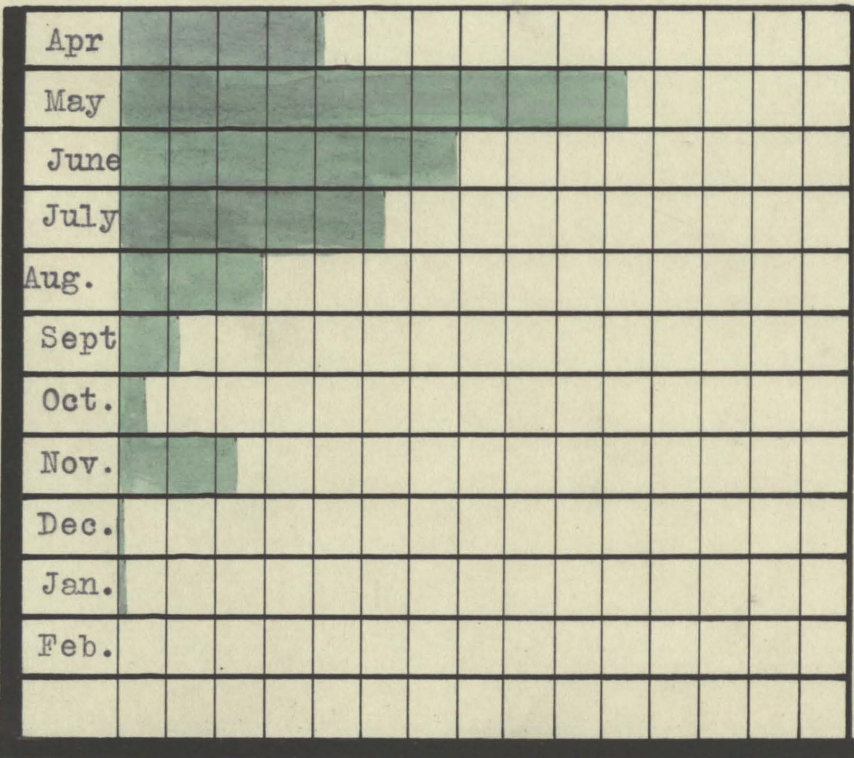
Men Hours



Man Hours
Field and Stock Labor Farm No. 4



Horse Hours



Data Sheet For Farm No. 5 - Grain Farm

Month	Maintenance		Stock		Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	107.5	64.	42.	-----	187.5	76.	180.	387.	367.5	463.	6.4
Feb.	69.	51.5	30.25	-----	178.75	56.5	142.5	169.5	321.25	226.	7.6
Mar.	143.	81.	57.5	7.	358.5	144.	143.5	290.	502.	434.	9.2
Apr.	139.	74.	43.	18.	358.	155.	205.	450.	563.	605.	10.0
May.	83.5	28.	62.	20.	250.	160.	352.	886.	602.	1046.	9.7
June	52.	10.	63.5	21.	212.5	86.	765.5	899.	978.	985.	9.9
July	59.5	66.	87.	46.	304.5	169.	539.	517.	843.5	686.	10.0
Aug.	18.5	44.	80.	22.	1034.5	455.	153.	205.	1187.5	660.	10.3
Sept.	20.	38.	63.5	22.	1280.5	298.	138.	326.	1418.5	624.	10.6
Oct.	26.5	68.	36.	-----	1085.5	224.	311.	458.	1396.5	682.	9.0
Nov.	56.	42.	32.5	-----	580.5	140.	277.	196.	857.5	336.	9.9
Dec.	91.5	75.	35.5	16.	221.	167.	129.	99.	350.	266.	7.9
Total	866.	641.5	632.75	172.	3380.75	2130.5	3335.5	4882.5	6716.25	7013.	9.2

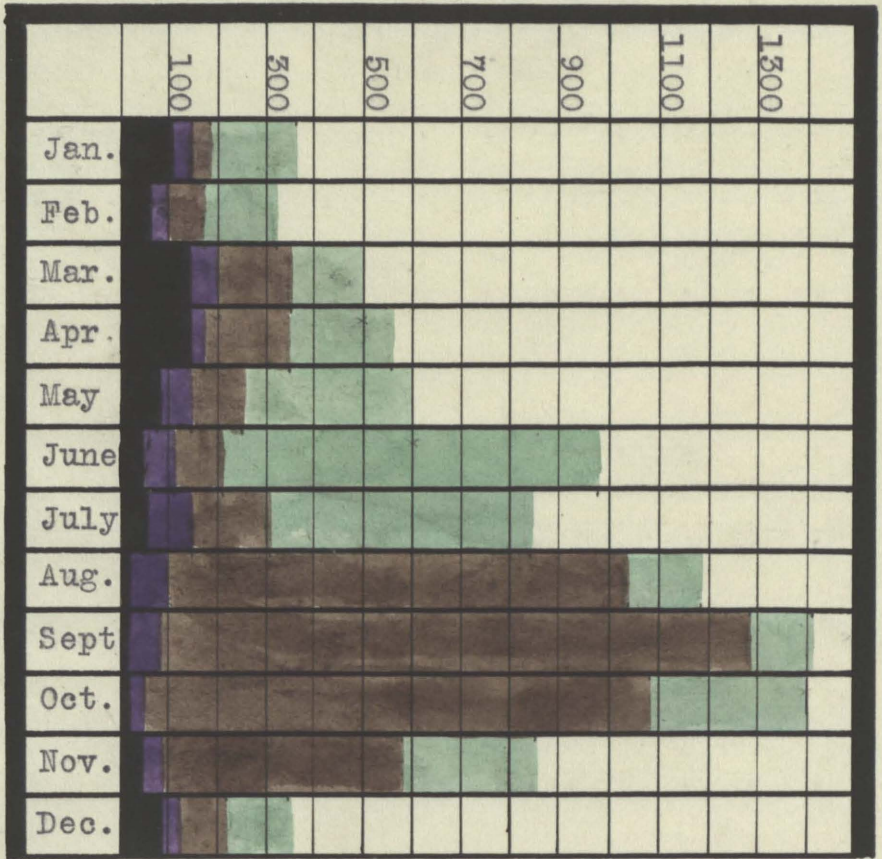
Total number of acres : 160
 Acres in pasture : 28
 " of corn : 30
 " " oats : 16
 " " wheat E 48
 " " clover : 14
 " " other hay : 6
 " " cowpeas : 14
 " " soybeans : 0
 " " alfalfa : 1

Class of Stock Ave. Number
 Horses 5.
 Cows 4.
 Other Cattle 4.
 Brood Sows 2.
 Other Hogs 10.
 Sheep 0.
 Poultry 135.
 Labor Income : \$299.
 Cost of Family Living :195.

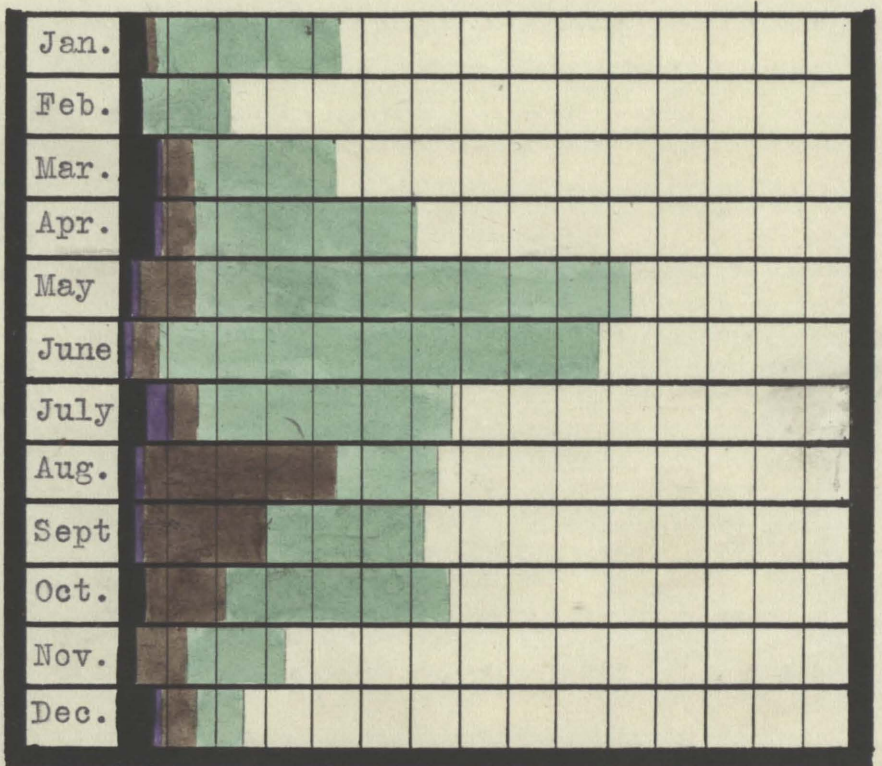
Animal Units
 5.
 1.38
 1.1
 .47
 2.47
 1.11
Total A. U. 11.53

Man Hours

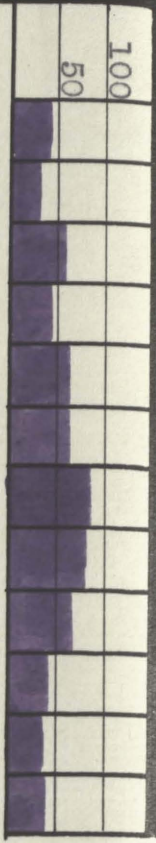
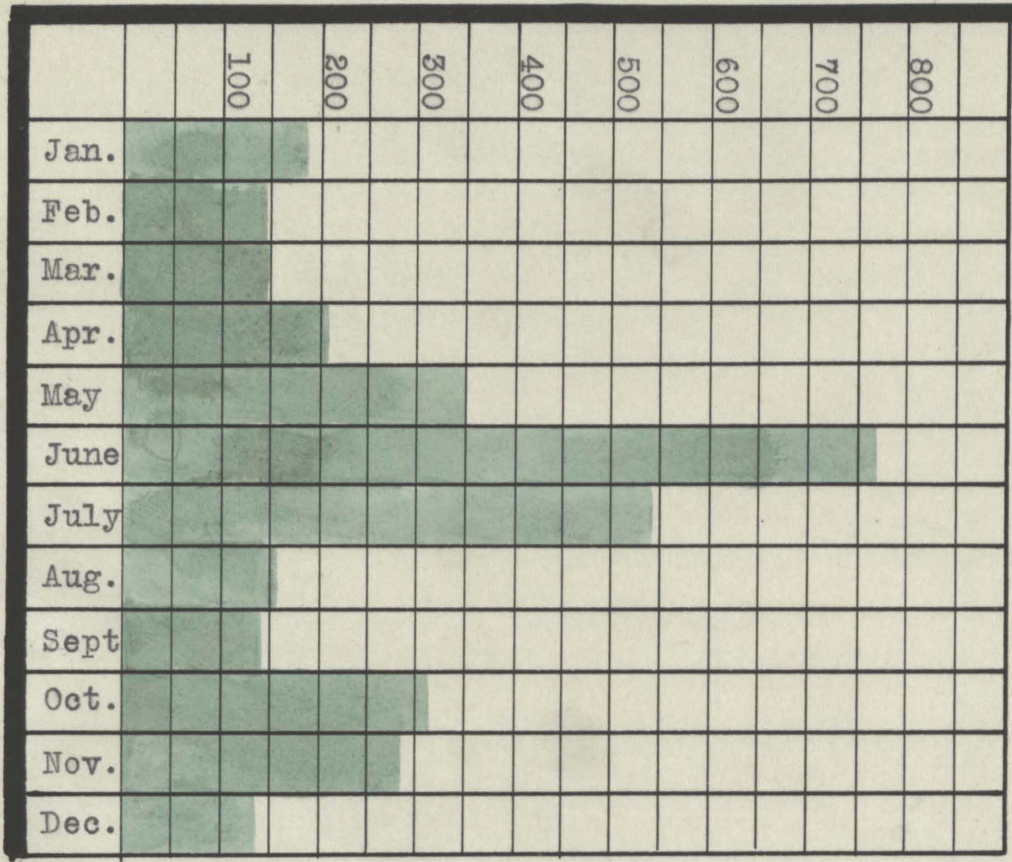
Total Labor Farm No. 5



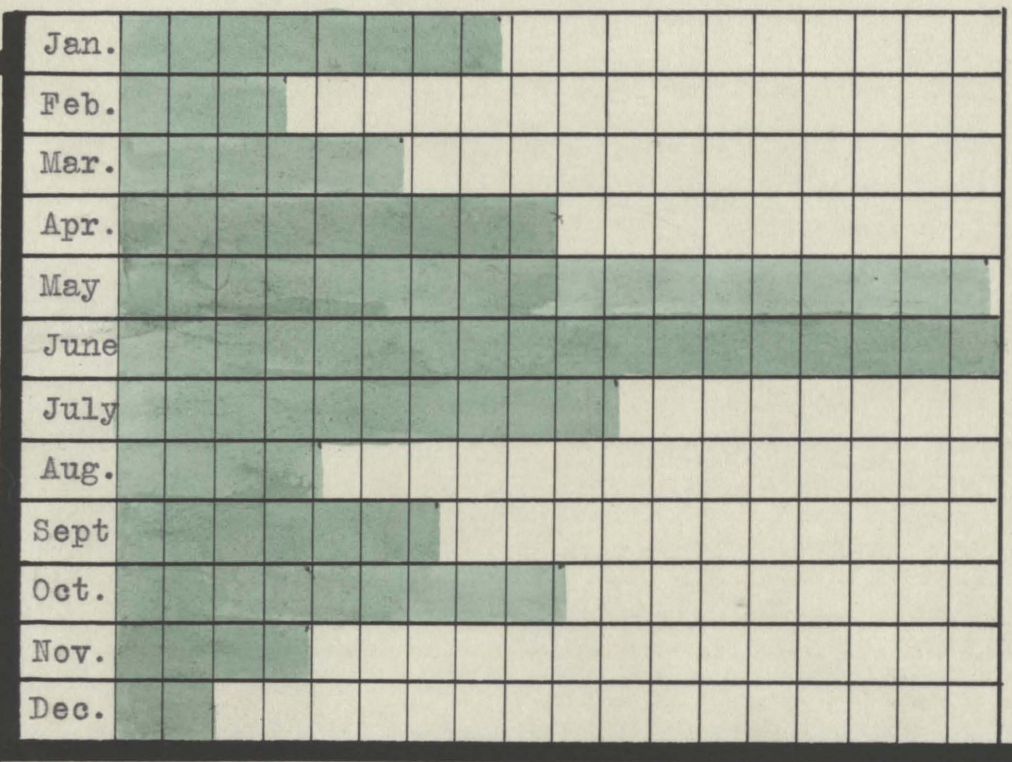
Horse Hours



Men Hours
Field and Stock Labor Farm No. 5



Horse Hours



Data Sheet For Farm No. 6 Grain Farm

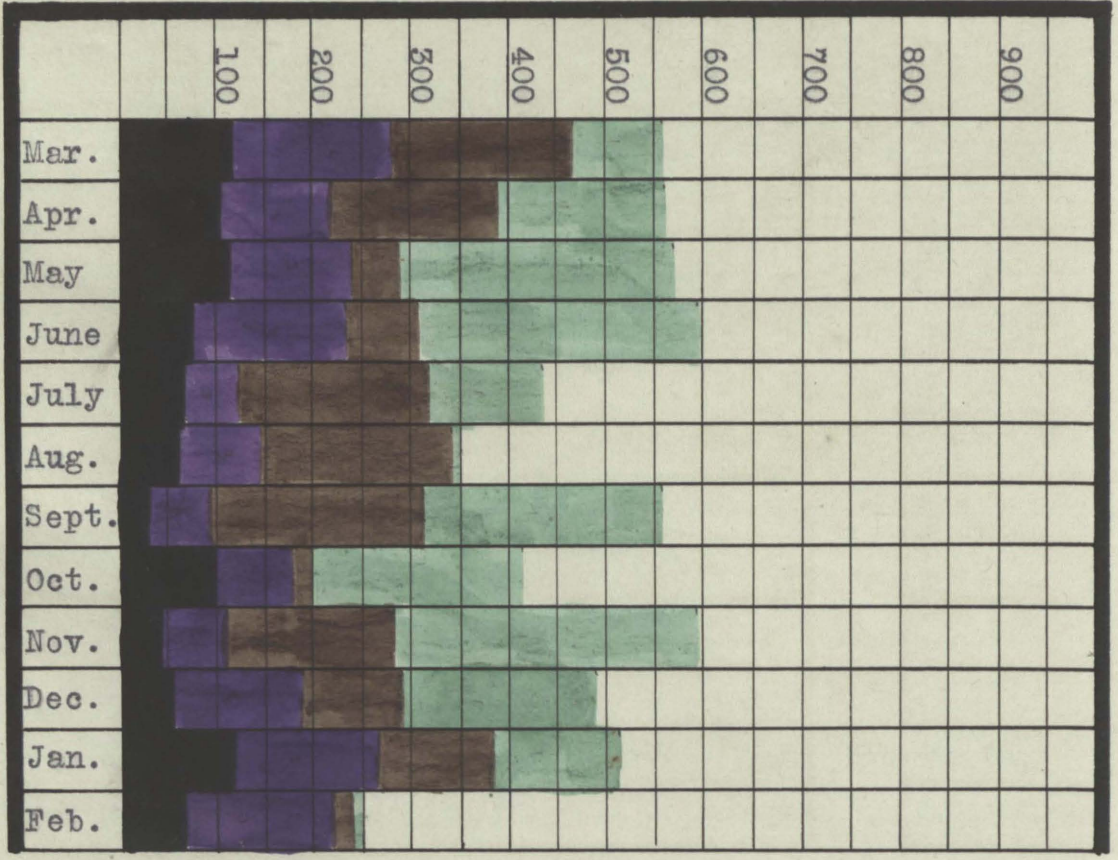
Month	Maintenance		Stock		x Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	117.	99.	160.75	-----	470.25	353.5	85.75	206.	556.	559.5	11.6
Apr.	104.5	26.	110.	-----	389.5	215.5	169.	518.5	558.5	734.	10.7
May	113.25	82.	120.5	30.	290.75	181.75	277.	686.5	567.75	868.25	10.9
June	78.	27.5	152.	149.	309.	199.5	285.5	599.	594.5	798.5	11.3
July	72.25	68.75	48.	3.	323.75	190.25	116.25	284.5	439.5	474.75	11.4
Aug.	63.5	48.	72.	6.	341.	313.5	11.5	27.	352.75	340.5	12.4
Sept.	34.	24.	59.5	8.	312.5	122.5	244.5	444.	557.	566.5	10.6
Oct.	100.75	133.5	73.75	12.5	199.5	181.5	215.5	277.5	415.	469.	10.2
Nov.	46.	28.	66.	-----	288.5	201.5	306.	221.5	594.5	423.	10.8
Dec.	58.5	158.	129.25	4.	296.25	220.	91.	128.	387.25	348.	10.8
Jan.	122.	174.	142.	23.	390.	220.	133.	143.	512.5	363.	10.2
Feb.	66.	108.	150.	3.	243.	153.5	8.	8.	251.	161.5	9.5
Total	975.75	976.75	1283.75	238.5	3842.5	2553.	1933.5	3543.5	5776.	6096.5	11.2

Total number of acres : 150
 Acres in pasture : 32
 " of corn : 66
 " " oats : 19
 " " wheat : 0
 " " clover : 0
 " " other hay : 0
 " " cowpeas : 9
 " " soybeans : 9
 " " alfalfa : 0

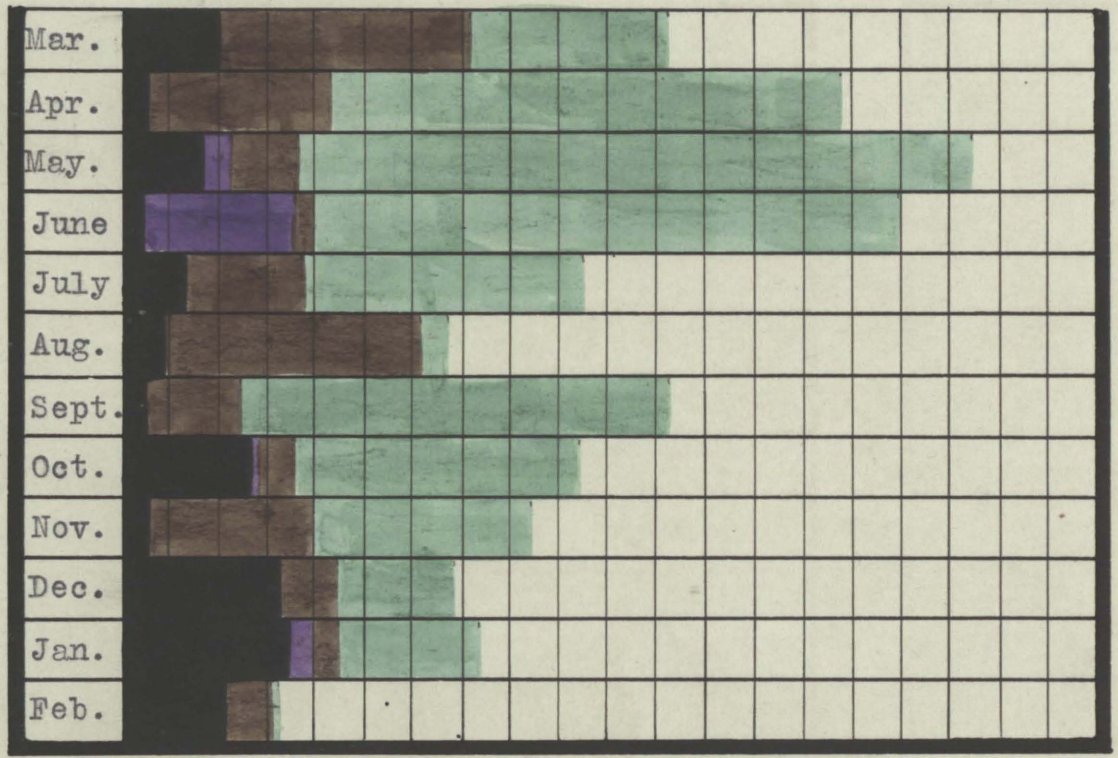
Class of Stock
 Horses 9.
 Cows 3.6
 Other Cattle 1.
 BroodcSows 5.5
 Other Hogs 18.8
 Sheep 44.
 Poultry -----
 Labor Income : \$117.
 Cost of Family Living : 608.

Animal Units
 5.65
 1.24
 .32
 1.29
 3.94
 1.94
 Total A. U. 14.38

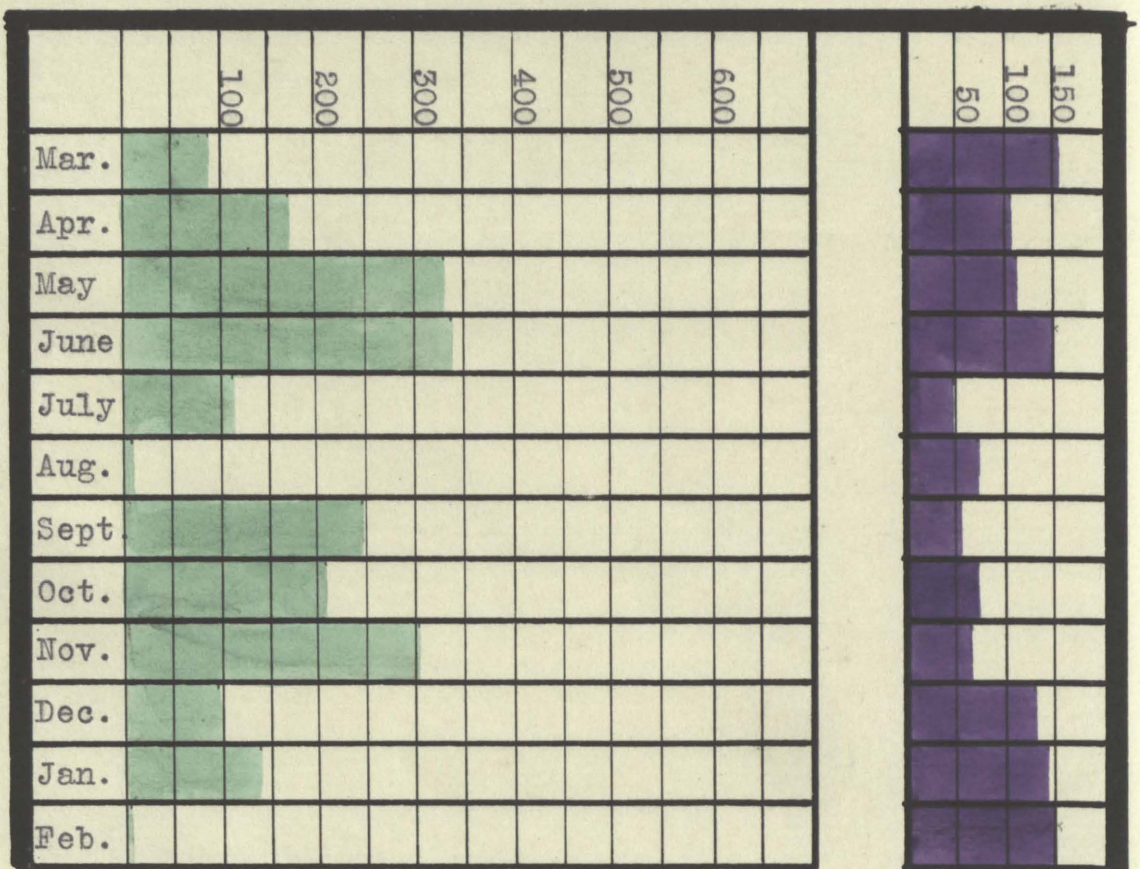
Man Hours
Total Labor Farm No. 67



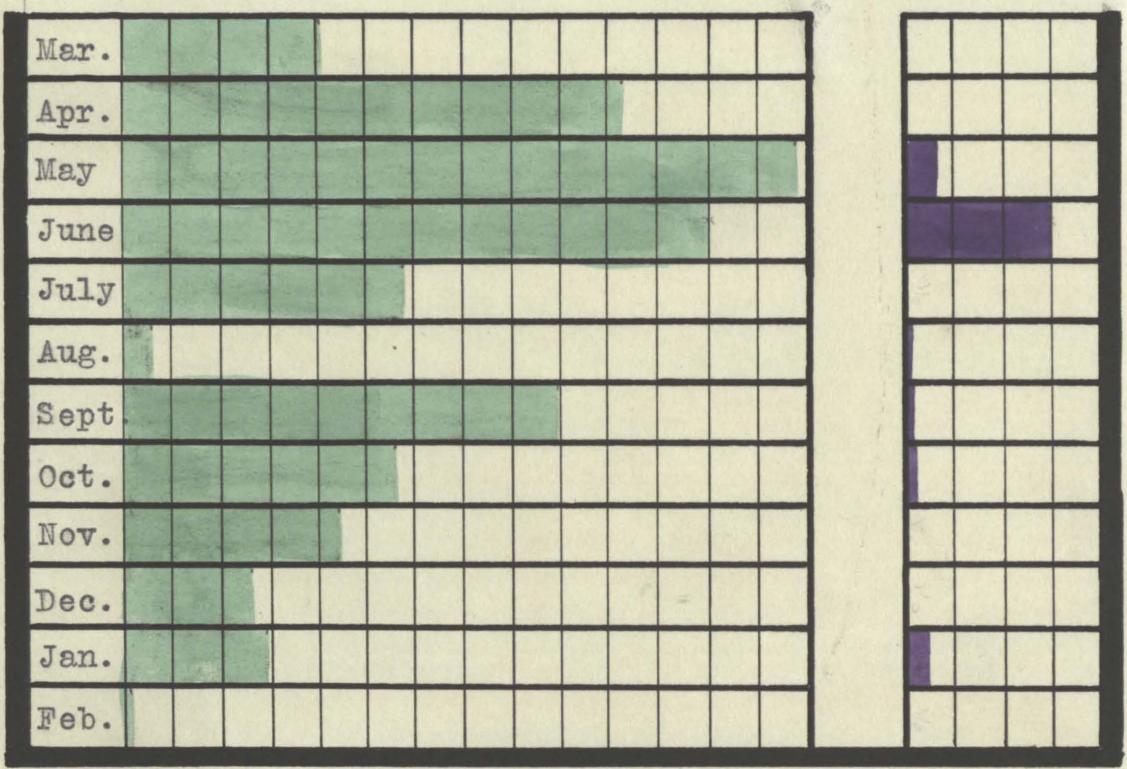
Horse Hours



Man Hours
Field and Stock Labor Farm No. 6



Horse Hours



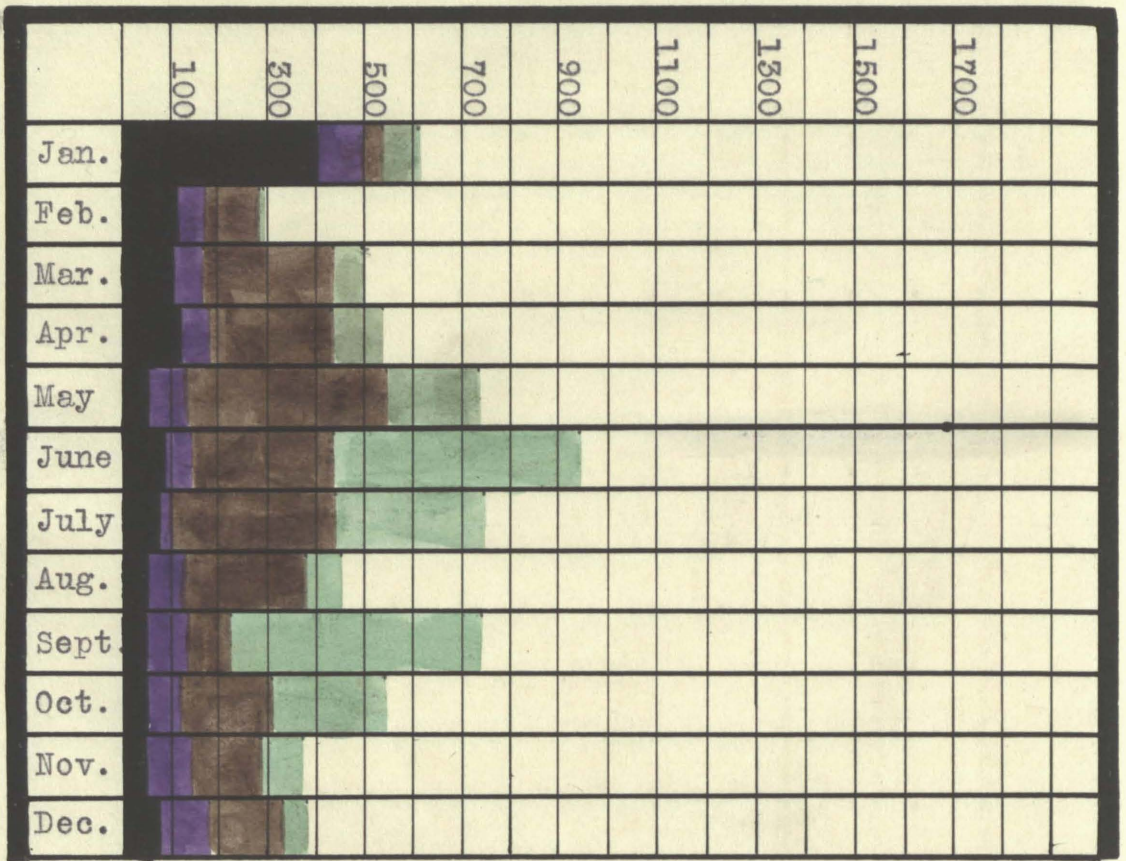
Data Sheet For Farm No. 7 - General Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	407.5	167.	93.	-----	537.5	515.5	77.	215.5	614.5	731.	11.3
Feb.	117.5	85.	62.5	39.	287.	300.	6.	12.	293.	312.	11.2
Mar.	106.5	123.	71.5	6.5	429.5	480.5	67.5	152.	497.	632.	11.4
Apr	118.5	45.	66.	-----	429.5	591.	113.	321.	542.5	912.	11.8
May	67.	17.	60.	9.5	550.	1305.5	179.	492.	729.	1797.5	12.0
June	87.5	53.	51.	4.	431.	654.	513.	1014.	944.	1668.	11.1
July	76.5	122.	27.	8.	437.	767.	305.	704.	742.	1471.	10.7
Aug.	59.	63.	73.	5.	385.	1368.	69.	183.	454.	1551.	12.8
Sept.	58.5	59.	76.5	6.	228.5	246.	511.	841.5	759.5	1087.5	11.5
Oct.	57.	80.	65.5	13.	307.5	285.	236.	536.	543.5	821.	10.9
Nov.	55.	118.	93.	15.	287.	663.	86.	192.	373.	855.	11.8
Dec.	70.	62.	104.	-----	326.	390.	49.	115.	375.	505.	11.7
Total	1280.	894.	643.	106.	4822.5	7539.5	2224.5	4804.	7047.	12343.5	11.5

Total number of acres : 182
 Acres in pasture : 15
 " of corn : 41
 " " oats : 12
 " " wheat : 60
 " " clover : 0
 " " other hay : 0
 " " cowpeas : 0
 " " soybeans : 27
 " " alfalfa : 0

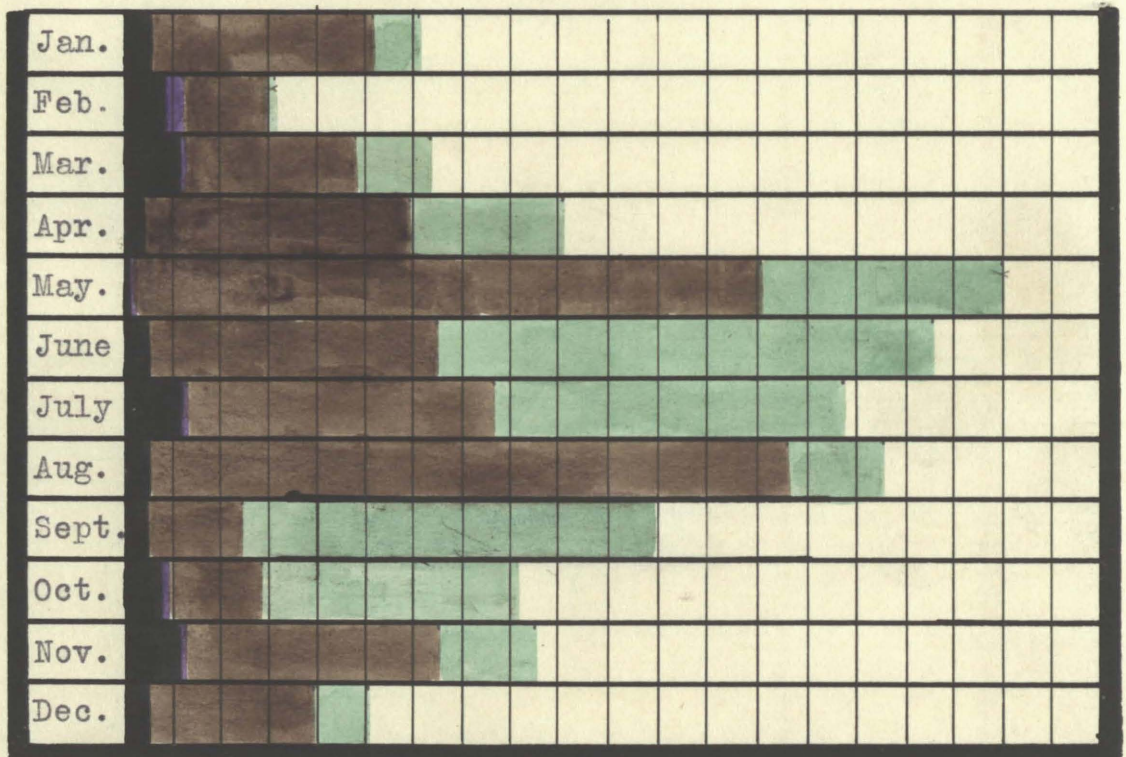
Class of Stock Ave. Number
 Horses 8.16
 Cows : 4.33
 Other Cattle 0.
 Brood Sows 5.
 Other Hogs 25.6
 Sheep 0.
 Poultry 112.
 Labor Income \$1292.
 Cost of Family Living: 333.

Animal Units
 6.83
 1.5
 1.17
 6.32
 .92
 Total A.U. 17.27



Man Hours

Total Labor Farm No. 7

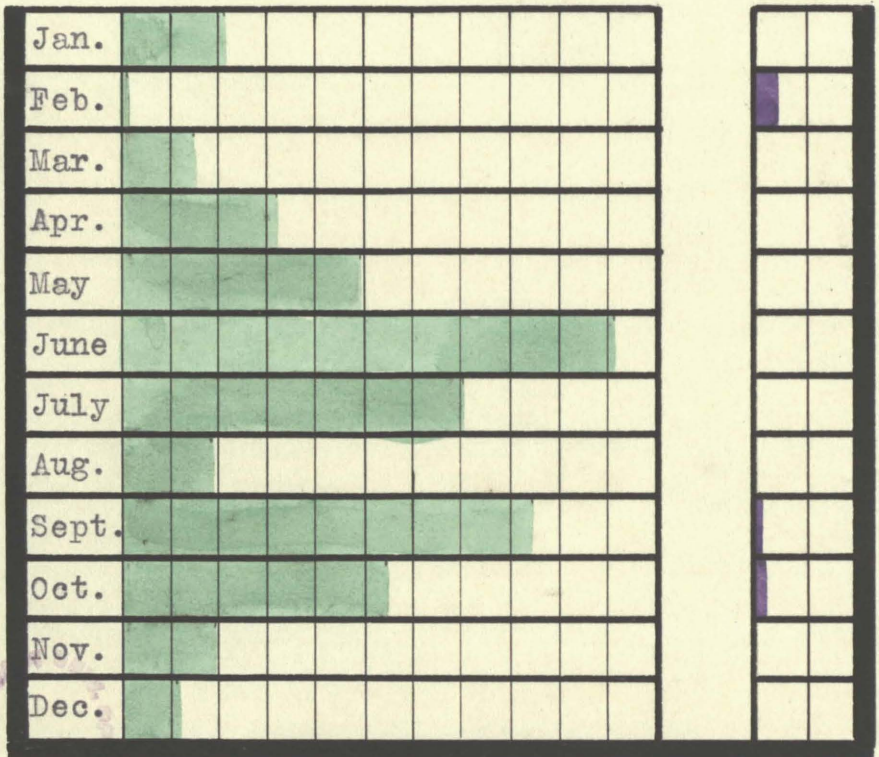
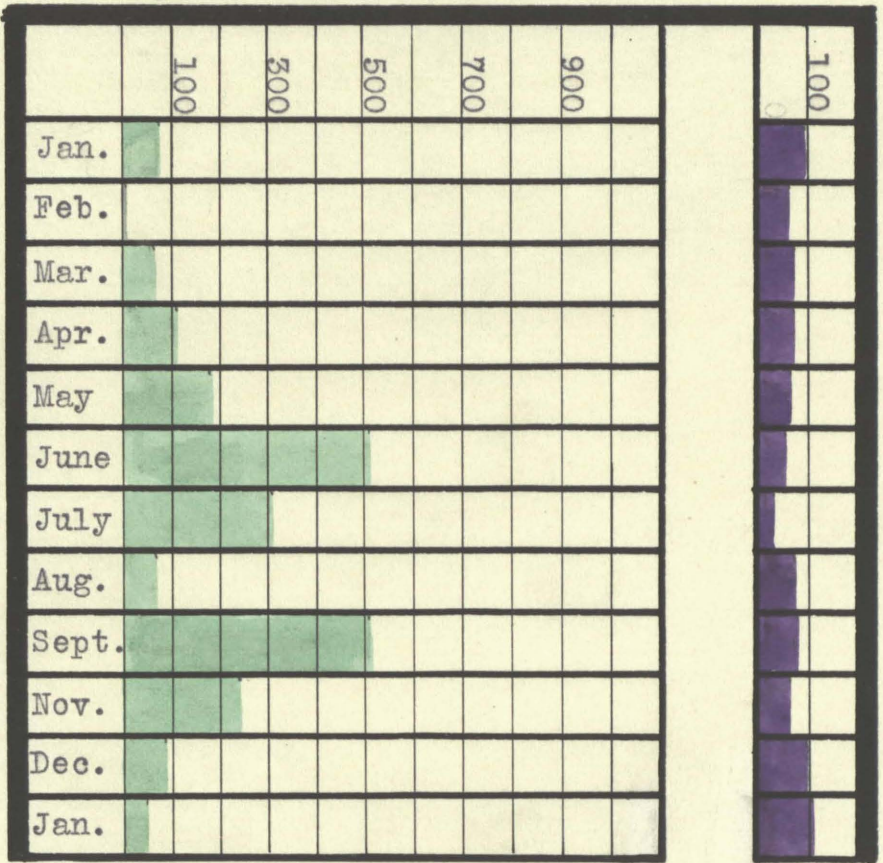


Horse Hours

Men. Hours

Field Labor Farm No. 7

Horse Hours



Data Sheet For Farm No. 8 - General Farm

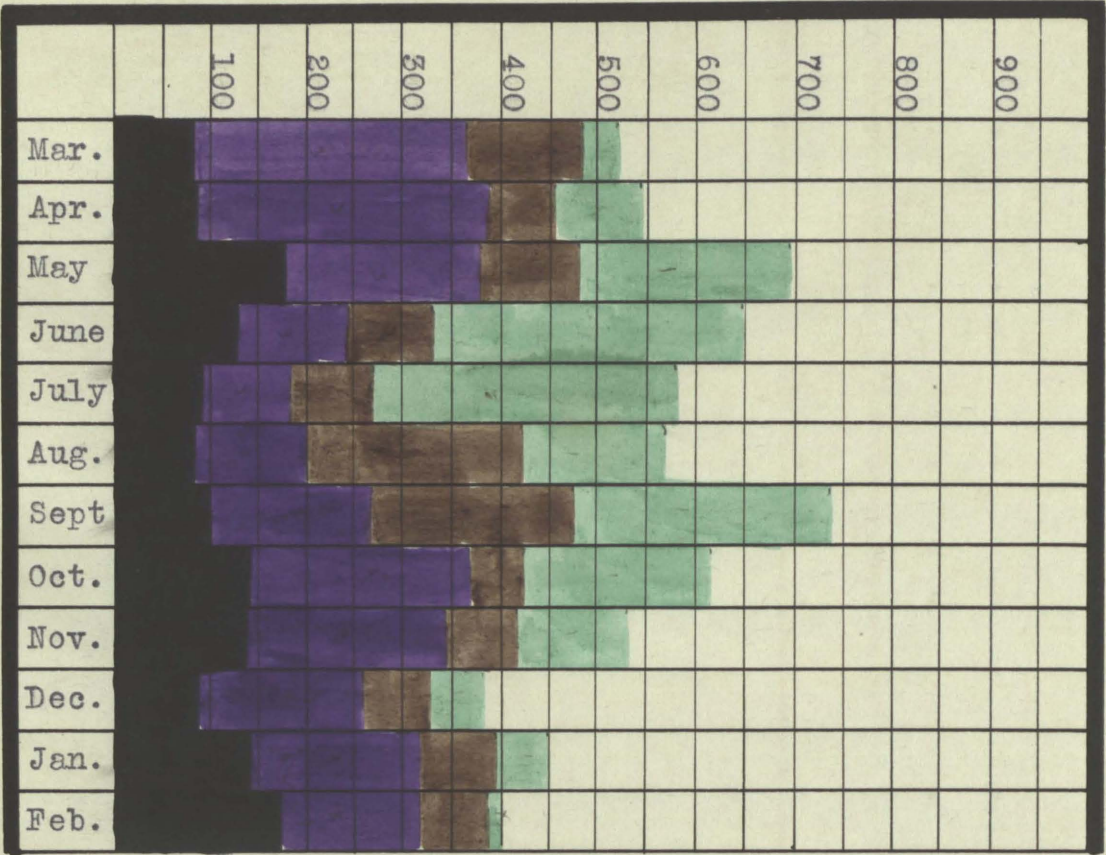
Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	83.75	48.25	284.	17.	486.5	145.25	31.5	97.	518.	242.25	10.9
Apr.	85.75	159.25	298.25	7.25	458.75	218.25	86.75	340.5	545.5	558.75	9.9
May	178.25	132.	202.75	-----	479.25	213.	213.5	586.55	692.75	799.5	10.5
June	130.75	27.	113.	27.	330.5	215	317.25	603.5	647.75	818.5	11.1
July	94.	96.	90.	25.	272.5	237.5	307.75	427.5	580.25	665.	10.4
Aug.	90.5	118.75	113.75	3.	422.25	361.75	148.75	313.	571..	674.75.	10.0
Sept.	100.75	104.5	168.	16.5	475.	292.75	260.25	704.5	735.25	997.25	11.1
Oct.	145.25	176.	222.25	17.5	423.	229.5	190.5	548.	613.5	777.5	10.8
Nov.	139.	160.	204.75	20.5	416.75	264.5	115.5	266.5	532.25	531.	9.1
Dec.	88.75	60.	172.	38.	327.75	147.	50.5	120.75	378.25	267.75	6.6
Jan.	142.5	50.	172.75	13.	397.75	110.	49.5	122.5	447.25	232.5	7.2
Feb.	176.	37.5	140.	13.	385.	94.5	16.	40.5	401.	135.	7.7
Total	1455.25	1169.25	2181.5	197.75	4875.	2529.	1329.25	2703.25	6662.75	6699.75	9.6

Total number of acres : 151.75
 Acres in pasture : 19.
 " of corn : 37
 " " oats : 6
 " " wheat : 29
 " " clover : 0
 " " other hay : 27
 " " cowpeas : 0
 " " soybeans : 12
 " " alfalfa : 8

Class of Stock
 Horses
 Cows
 Other Cattle
 Brood Sows
 Other Hogs
 Sheep
 Poultry
 Labor Income :
 Cost of Family Living :

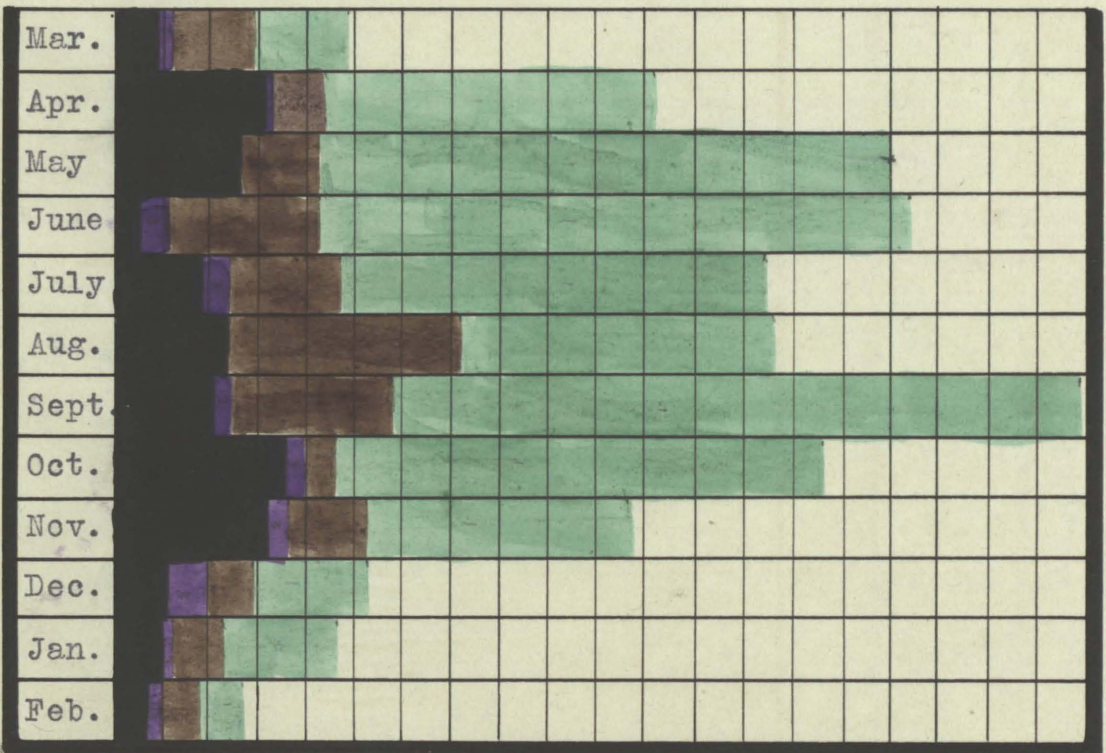
Ave. Number
 4.66
 10.6
 9.62
 6.25
 36.9
 0.
 193 .
 \$206.
 :1205.

Animal Units
 4.66
 3.67
 1.83
 1.46
 5.1
 1.58
Total A. U. 18.3



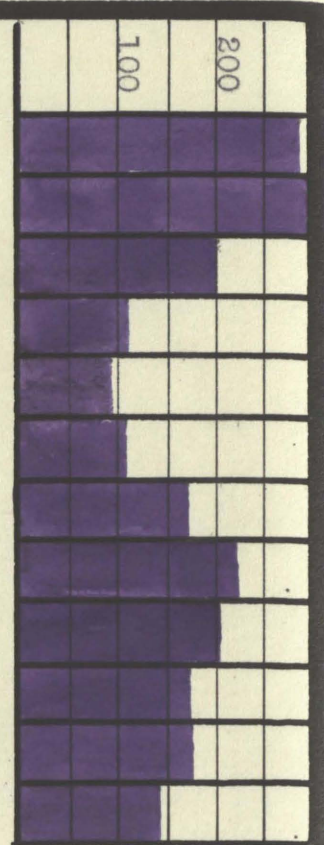
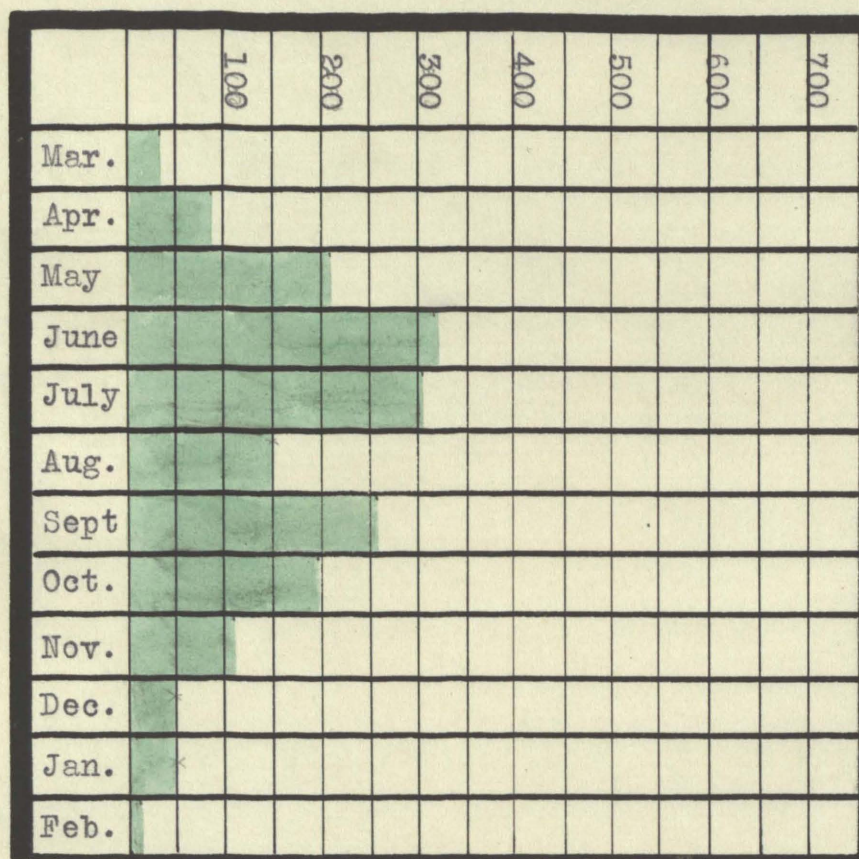
Man Hours

Total Labor Farm No. 8

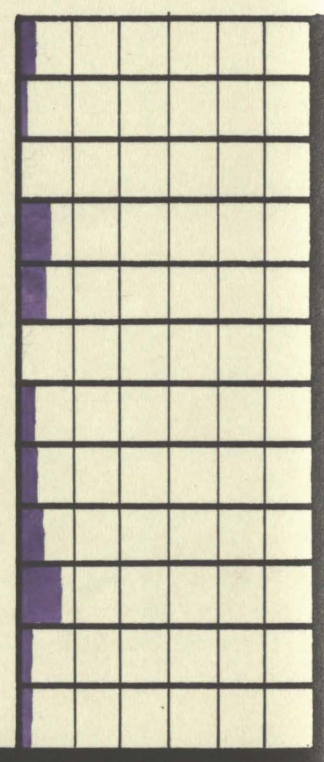
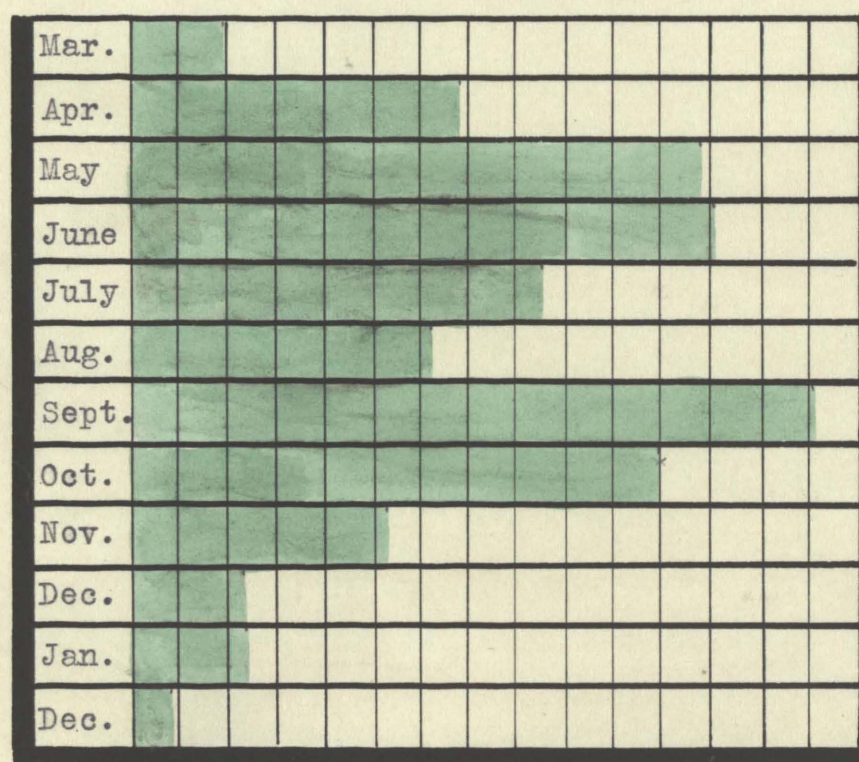


Horse Hours

Men Hours
Field and Stock Labor Farm No. 83



Horse Hours

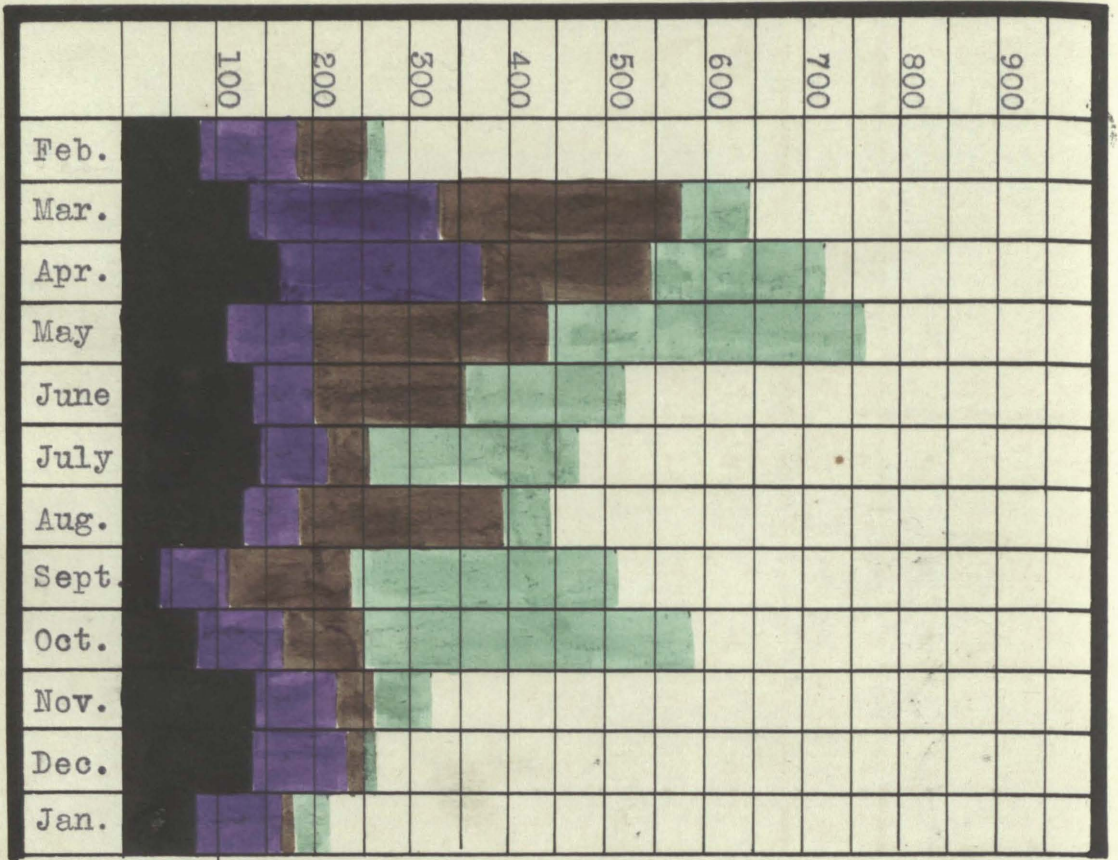


Data Sheet For Farm No. 9 - General Farm

Month	Maintenance		Stock		Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Feb.	78.25	60.5	103.5	49.5	255.75	80.25	20.5	49.5	276.25	130.	10.1
Mar.	136.25	123.5	193.	6.	574.5	321.	70.5	140.	645.	456.	13.
Apr.	164.	144.	207.5	25.5	543.	231.	177.	428.5	720.	659.5	10.9
May	114.5	162.	79.75	8.	441.	273.75	320.5	684.5	761.5	958.25	10.3
June	138.5	121.5	60.	3.	335.25	367.5	184.5	350.	519.75	717.5	8.5
July	210.	138.5	62.5	1.5	253.	153.5	221.	344.	474.	497.5	7.8
Aug.	128.	196.5	53.	9.	396.5	572.5	48.5	104.	445.	676.5	6.6
Sept.	40.5	101.	69.	6.	235.5	242.	277.	612.	512.5	854.	8.1
Oct.	77.5	201.	88.5	4.	250.5	291.	332.5	573.	583.	864.	9.1
Nov.	137.5	71.25	86.	3.	261.5	311.5	61.	78.	322.5	389.5	6.2
Dec.	135.	228.	95.5	-----	251.	269.	12.	24.	263.	293.	4.0
Jan.	74.5	307.	87.	7.	178.	332.	36.5	51.	214.5	383.	3.7
Total	1434.5	1854.75	1185.25	122.	3975.5	3445.25	1516.	2901.5	5491.5	6346.75	8.2

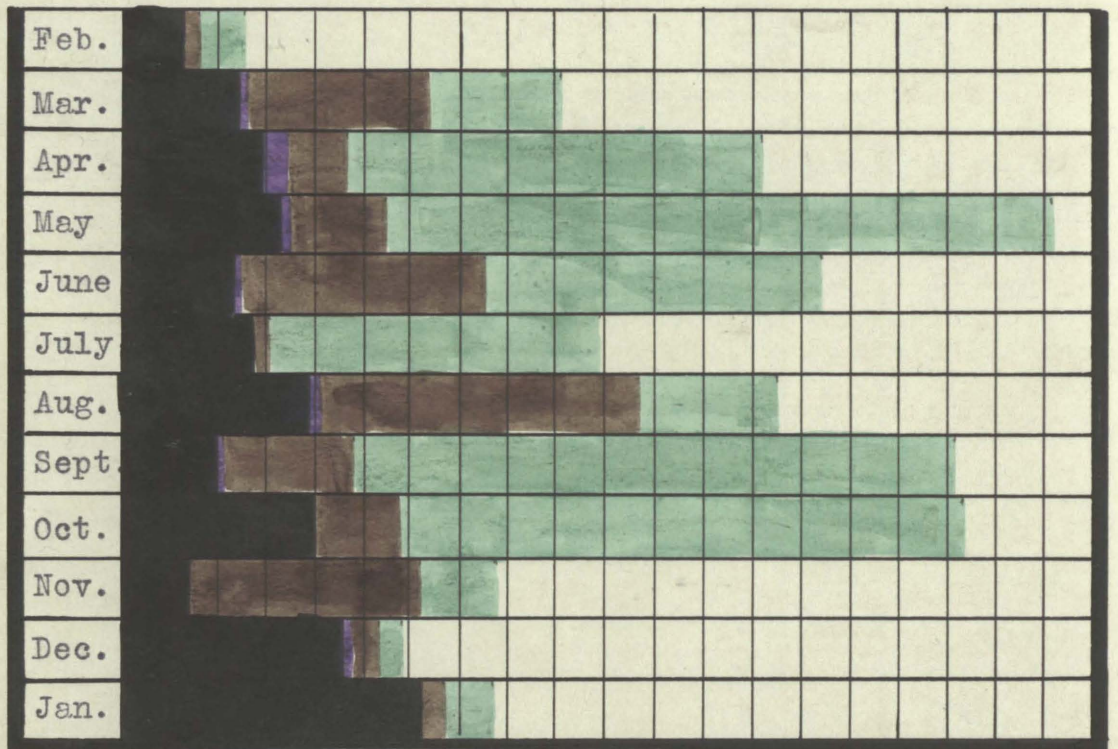
Total number of acres :	176	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	96	Horses	6.	6.
" of corn :	31.75	Cows	1.5	.67
" " oats :	7.75	Other Cattle	28.4	9.08
" " wheat :	0	Brood Sows	8.33	1.95
" " clover :	0	Other Hogs	18.83	2.54
" " other hay :	0	Sheep	0.	
" " cowpeas :	8	Poultry	60.	.49
" " soybeans :	0	Labor Income :	-\$1.30	Total A. U. 20.73
" " alfalfa :	2.25	Cost of Family Living :	\$599.	

Man Hours

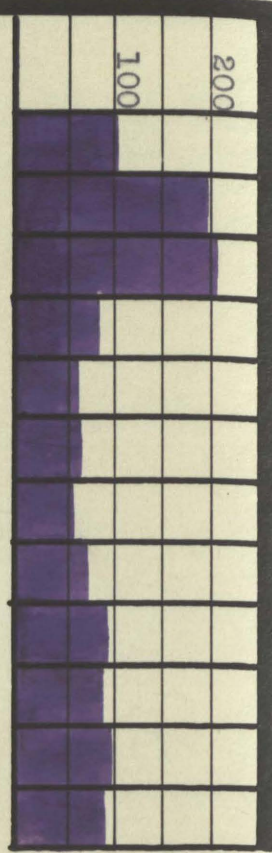
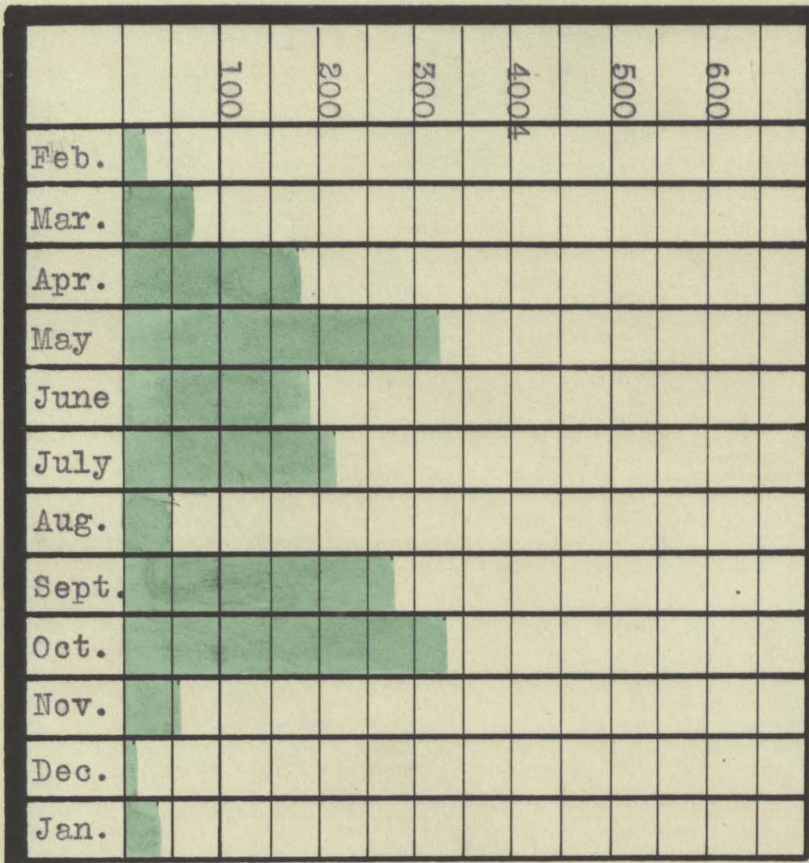


Total Hours Farm No. 9

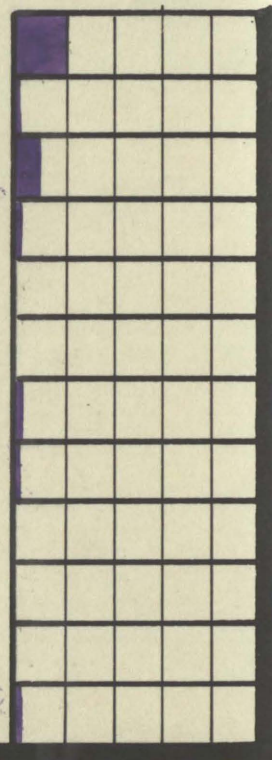
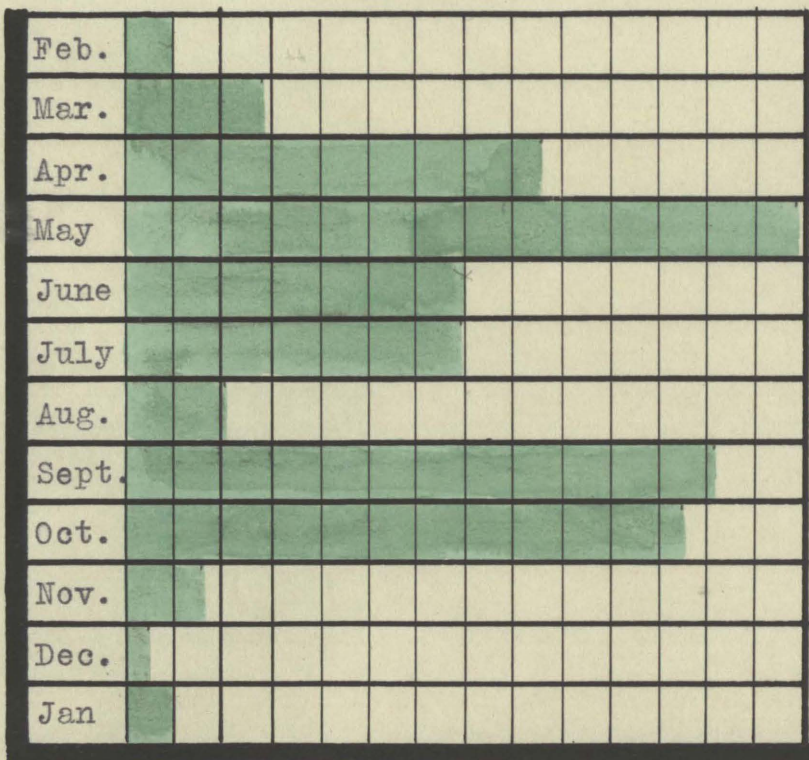
Horse Hours



Men Hours
Field and Stock Labor Farm No. 97



Horse Hours



Data Sheet For Farm No. 10 - General Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	111.75	71.	79.	23.	291.	192.	93.5	146.	384.5	338.	9.8
Apr.	108.	56.	57.	8.	232.5	118.	156.	308.	388.5	426.	9.6
May	85.5	51.	45.25	33.	247.	190.	218.	373.	465.	563.	9.4
June	59.	47.	58.	8.	134.5	83.	515.	544.	649.5	627.	8.6
July	54.75	24.	40.25	-----	235.	156.	222.	248.	457.	404.	8.4
Aug.	79.5	64.	48.5	19.	185.	91.	189.	443.	374.	534.	8.5
Sept.	52.2	62.	67.5	48.	191.	217.	246.	487.	437.	704.	7.7
Oct.	97.	31.	45.5	32.	180.5	119.	206.	449.	386.5	568.	7.9
Nov.	43.5	68.	73.5	26.	159.	124.	107.5	214.	266.5	338.	7.6
Dec.	72.5	87.	72.5	14.	194.	147.	22.	56.	216.	203.	7.7
Jan.	119.5	66.	60.5	6.	332.	104.	21.	38.	353.	142.	8.5
Feb.	53.	14.	56.	12.	294.	94.	7.	14.	301.	108.	8.5
Total	936.5	643.	703.5	229.	2675.	1635.	2003.	3320.	4678.	4955.	8.53

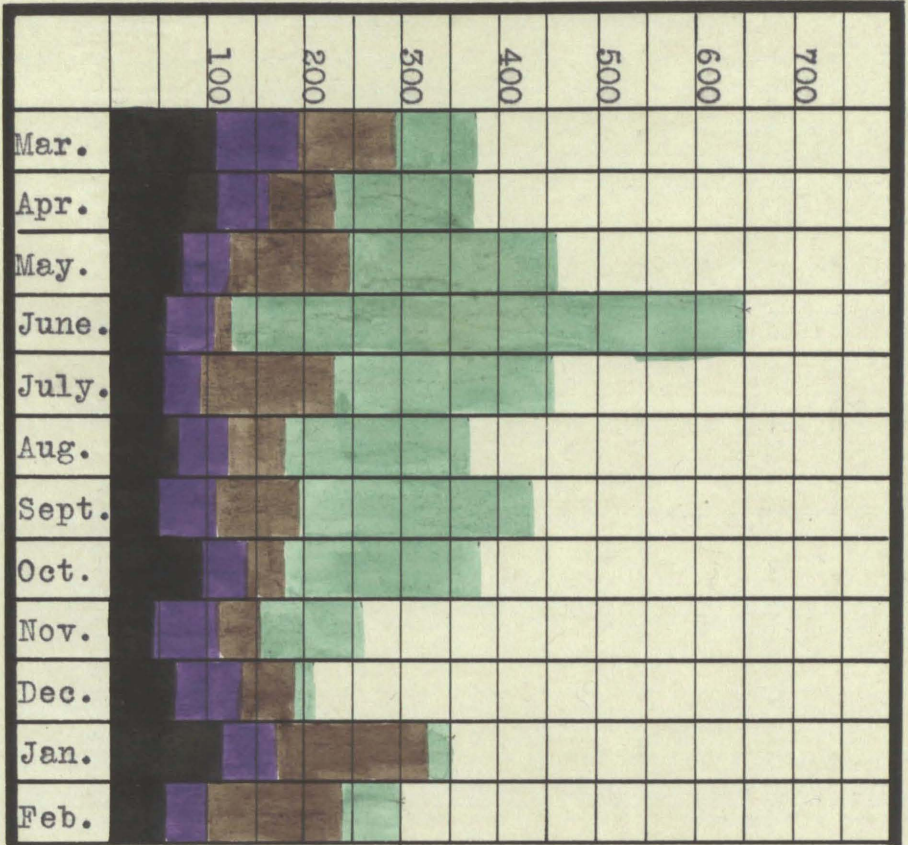
Total number of acres : 360
 Acres in pasture : 54
 " of corn : 16.5
 "V " oats : 16
 " " wheat : 40
 " " clover : 0
 " " other hay : 27
 " " cowpeas : 0
 " " soybeans : 0
 " " alfalfa : 0

Class of Stock Ave. Number
 Horses 9.75
 Cows 3.58
 Other Cattle 20.16
 Brood Sows 2.83
 Other Hogs 21.18
 Sheep 12.76
 Poultry 50.
 Labor Income : \$1054.
 Cost of Family Living : 963.

Animal Units
 5.36
 1.24
 4.29
 .66
 4.24
 .51
 .41

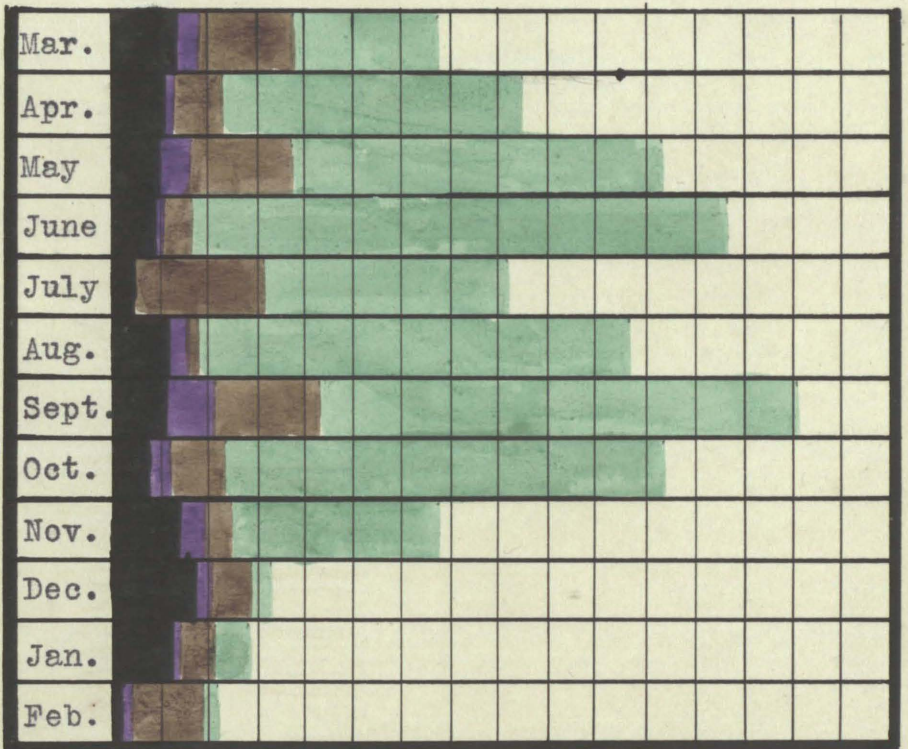
 Total A. U. 16.71

Man Hours

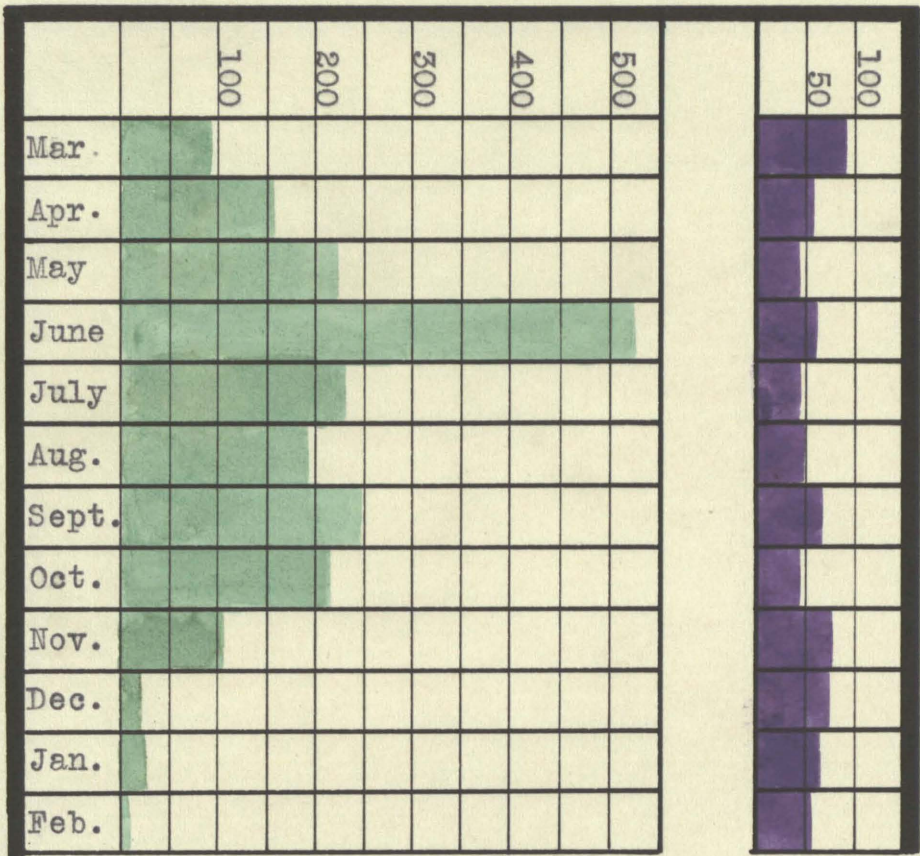


Total Labor Farm No. 10

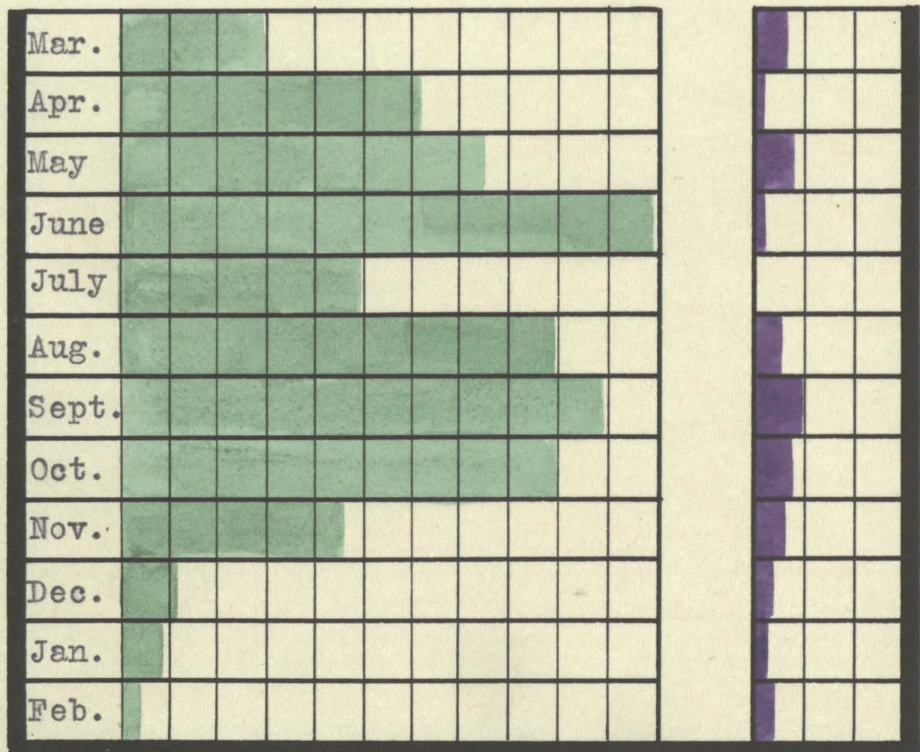
Horse Hours



Men Hours
Field and Stock Labor Farm No. 10



Horse Hours

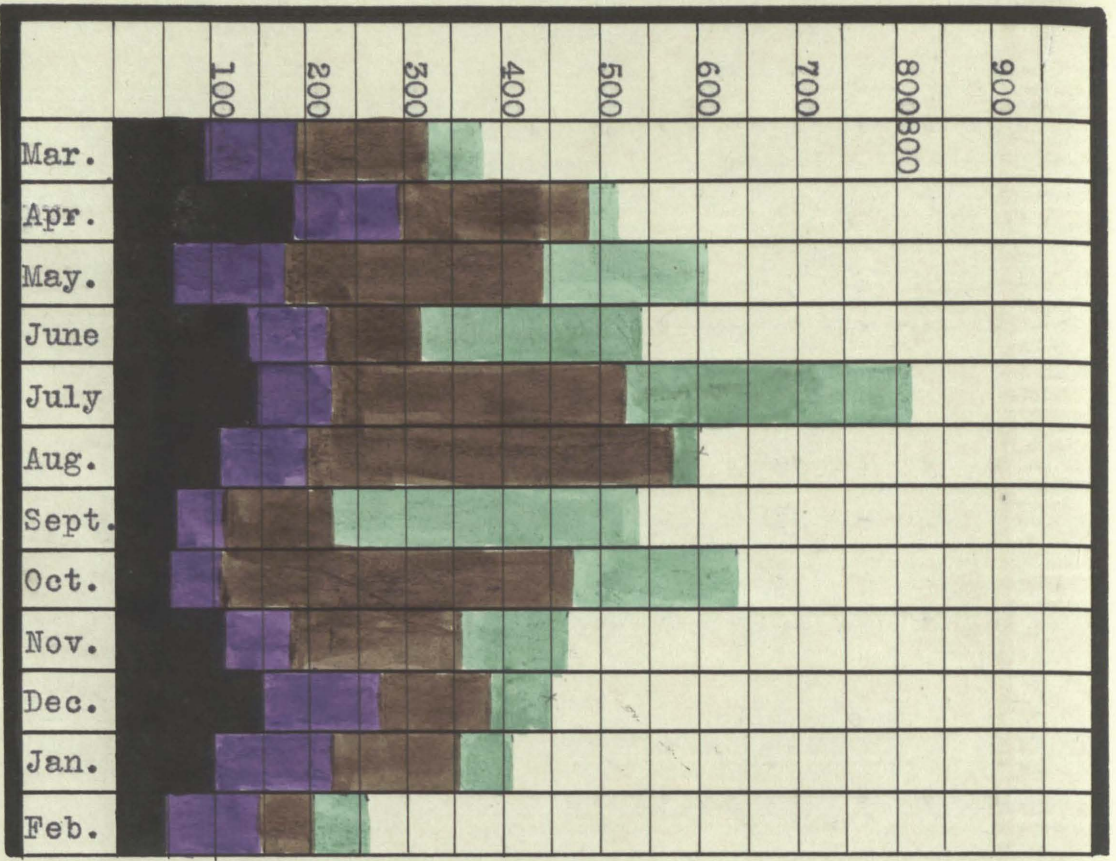


Data Sheet For Farm No. 11 - General Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	87.	67.5	95.	39.	322.5	209.5	53.75	93.5	376.25	303.5	11.6
Apr.	184.5	102.	109.	29.5	490.5	307.5	26.	99.	516.5	406.5	11.9
May.	63.	21.	113.	45.	444.5	287.	161.	415.5	605.5	702.5	13.2
June	138.5	57.	81.5	29.5	315.5	103.	227.5	369.	542.5	472.	12.5
July	147.5	46.5	72.25	----	524.25	435.5	286.	430.	810.75	865.5	11.1
Aug.	108.25	67.	88.25	7.	573.	559.	26.5	68.	599.5	627.	10.7
Sept.	65.5	59.5	50.5	14.	223.5	1272.5	316.5	486.	540.	613.5	10.3
Oct.	62.25	72.5	49.5	18.5	469.75	211.	166.	381.	635.75	592.	11.9
Nov.	114.	69.	66.	5.	356.5	215.	106.5	255.5	463.	470.	14.1
Dec.	149.75	53.	122.	42.	384.25	244.	64.5	190.	448.75	434.	13.9
Jan.	100.	43.	123.75	23.5	354.25	173.5	57.	111.	411.25	284.5	10.1
Feb.	47.	36.5	95.75	50.5	202.25	134.	53.75	85.5	256.	219.5	11.9
Total	1267.25	694.5	1066.5	303.5	4660.75	3006.5	1545.	2984.	5205.75	5990.5	11.8

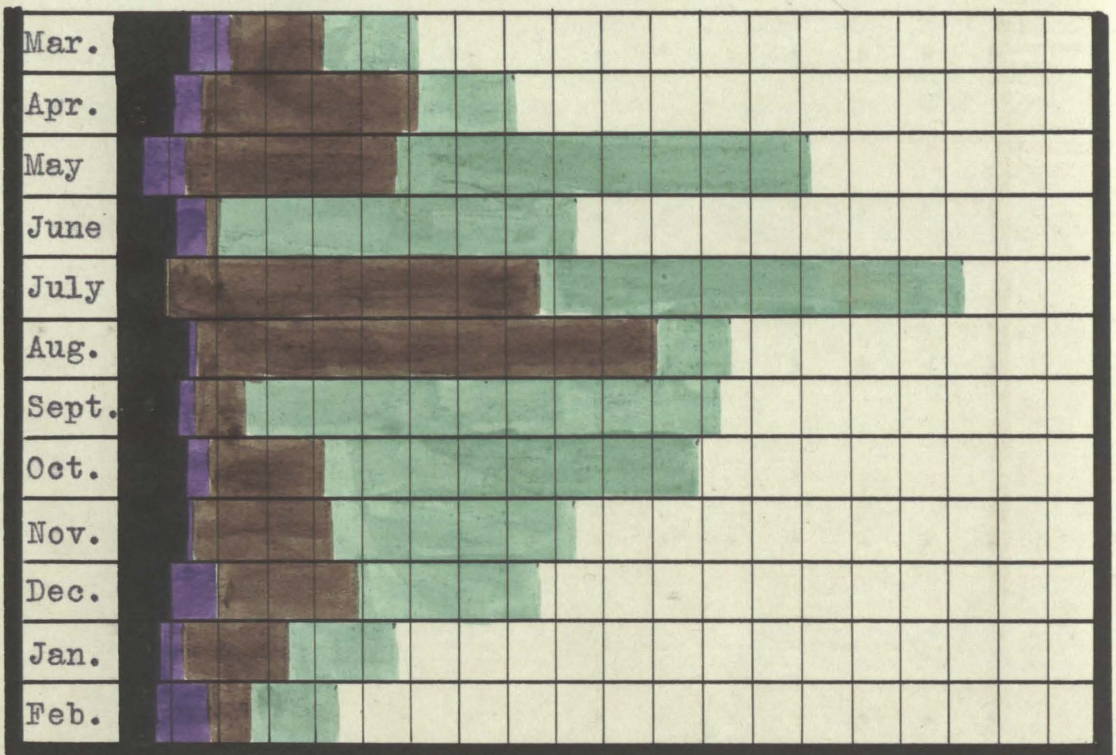
Total number of acres :	200	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	70	Horses	7.75	5.25
" of corn :	21	Cows	10.9	337.77
" " oats :	12	Other Cattle	6.25	1.49
" " wheat :	27	Brood Sows	3.	.70
" " clover :	0	Other Hogs	21.	4.52
" " other hay :	25	Sheep	37.66	1.63
" " cowpeas :	8	Poultry	119.	.98
" " soybeans :	0	Labor Income	\$691.	Total A. U. 18.34
" " alfalfa :	0	Cost Of Family Living :	807.	

Man Hours

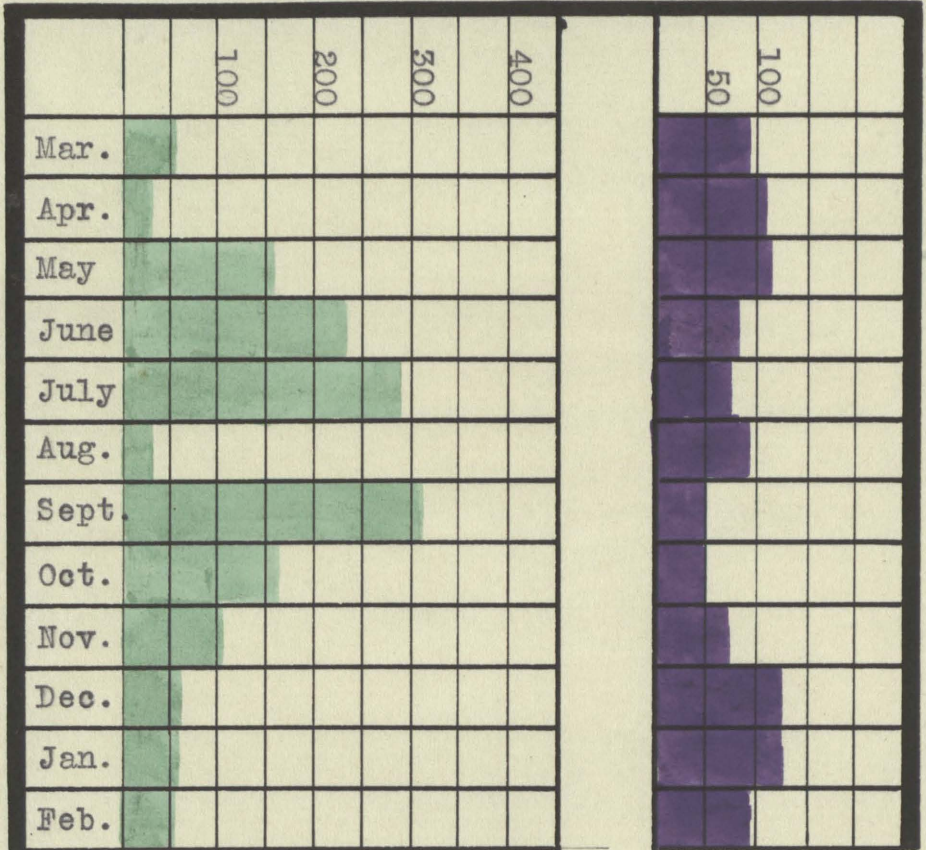


Total Labor Farm No. 11

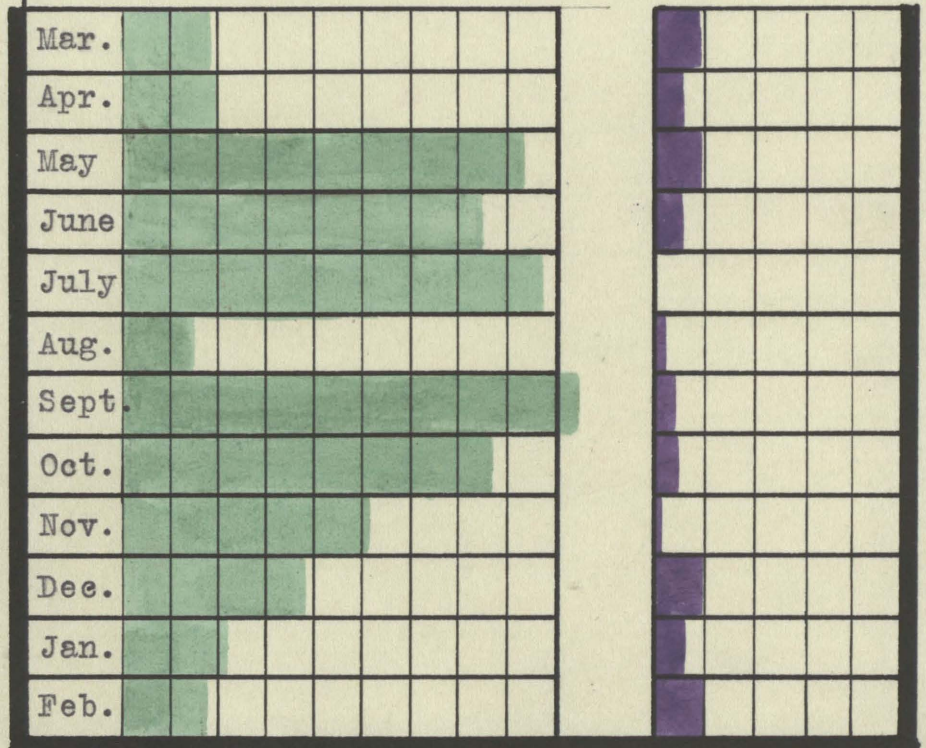
Horse Hours



Man Hours
Field and Stock Labor Farm No. 11



Horse Hours

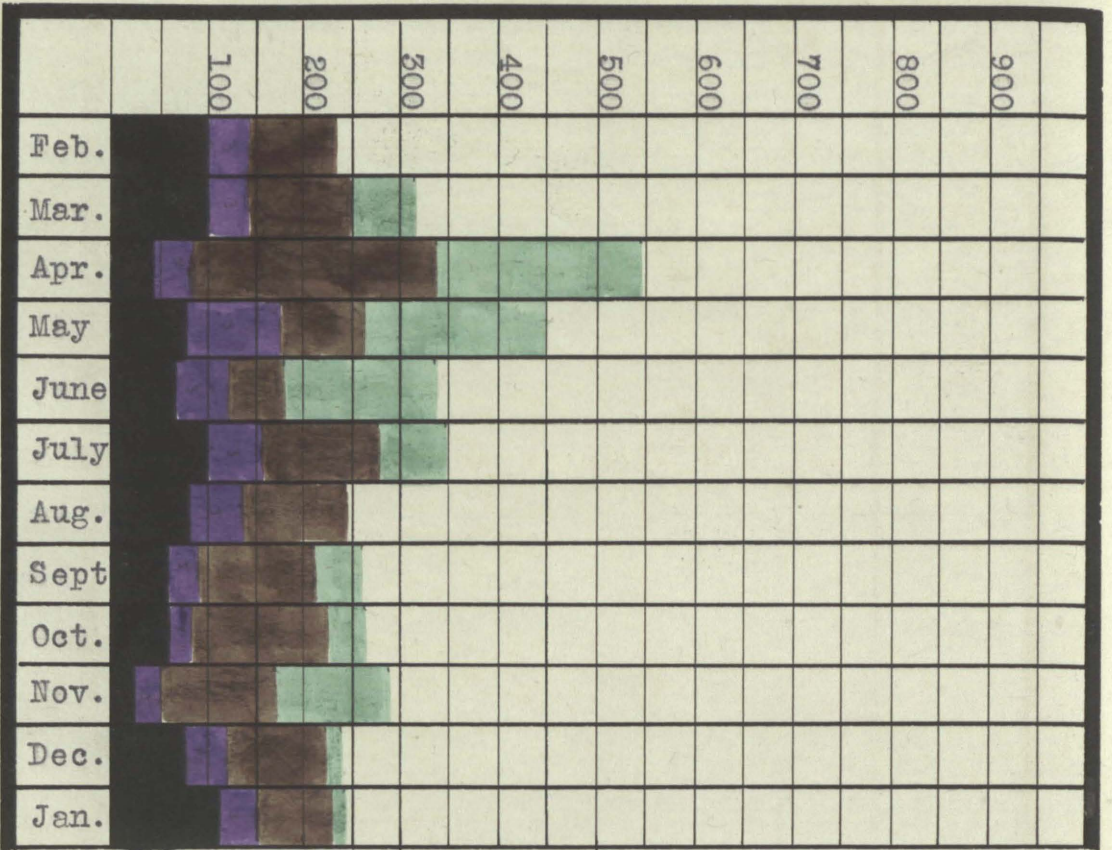


Data Sheet For Farm No. 12 - General Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Feb.	97.	31.	243.	-----	228.	159.	.5	-----	228.5	159.	9.2
Mar.	97.	75.	43.5	3.	251.	212.	62.5	201.	313.5	413.	10.1
Apr.	44.5	45.	37.5	-----	334.	243.	209.5	542.5	543.5	785.5	9.9
May	74.75	47.	94.25	4.	262.5	361.5	187.5	597.5	449.5	959.	11.6
June	66.	40.	54.	-----	176.5	154.	157.5	305.	334.	459.	11.4
July	97.75	69.	60.25	-----	274.	307.	74.5	79.	348.5	386.	10.0
Aug.	79.	141.	54.5	-----	243.5	347.	-----	-----	243.5	347.	9.3
Sept.	63.	68.	25.5	33.	212.5	256.	47.	138.	259.5	394.	9.4
Oct.	63.5	127.	19.75	12.	230.	330.	32.5	65.	262.5	395.	9.4
Nov.	28.	30.	25.5	20.	173.	243.	114.	188.	287.	429.	8.9
Dec.	78.	63.	40.5	-----	222.5	227.	16.	30.	238.5	257.	8.7
Jan.	111.	100.	38.75	-----	226.5	190.	15.	30.	241.5	220.	7.9
Total	899.5	836.	537.	72.	2834.	3029.5	916.5	2176.	3750.	5203.5	9.5

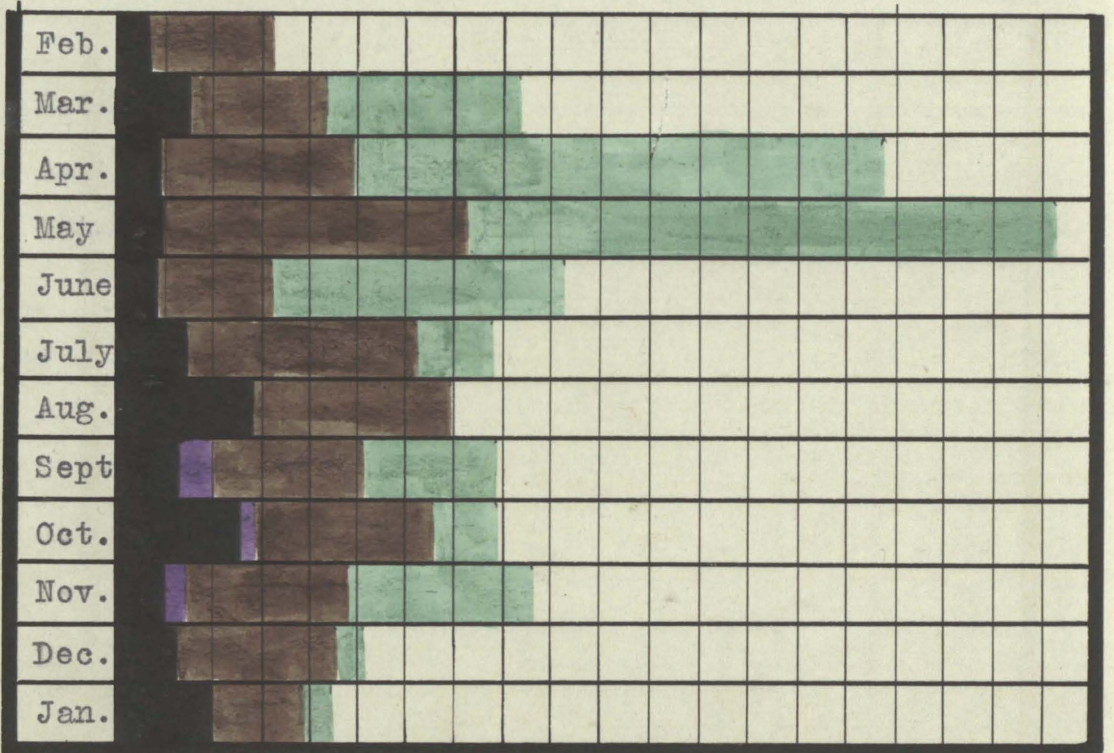
Total number of acres :	120	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	39	Horses	4.16	4.16
" of Corn :	40	Cows	1.	.35
" " oats :	31.5	Other Cattle	0.	
" " wheat :	0	Brood Sows	9.	2.1
" " clover :	0	Other Hogs	55.8	9.68
" " other hay :	0			
" " cowpeas :	0	Poultry	188.	1.54
" " soybeans :	0	Labor Income	\$1004.	Total A. U. 17.83
" " alfalfa :	0	Cost of Family Living:	1062.	

Men Hours

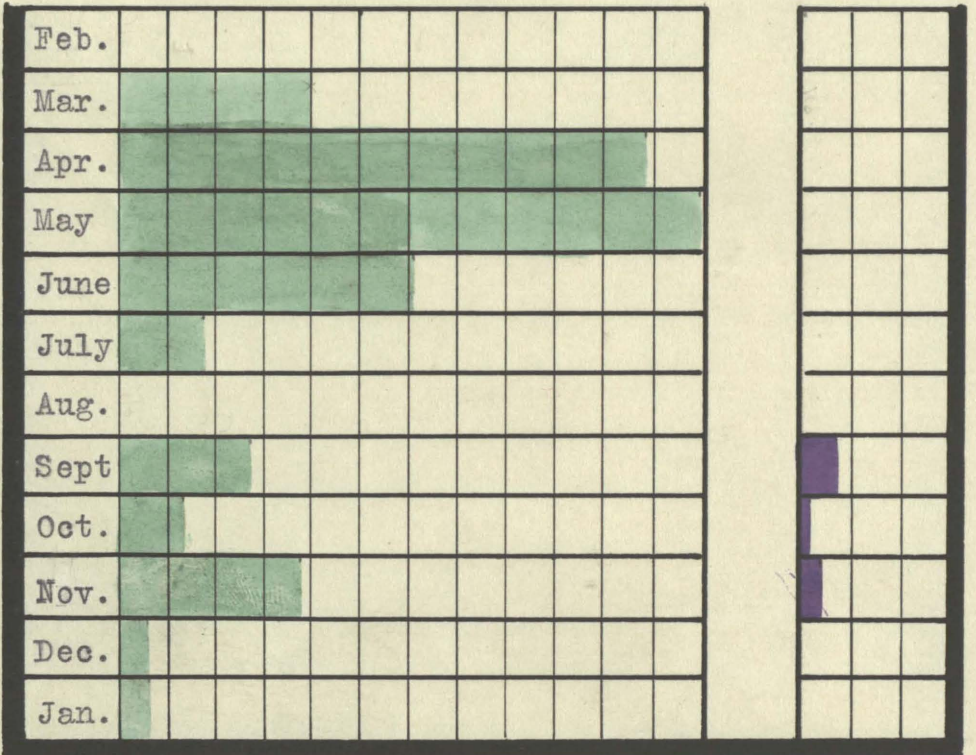
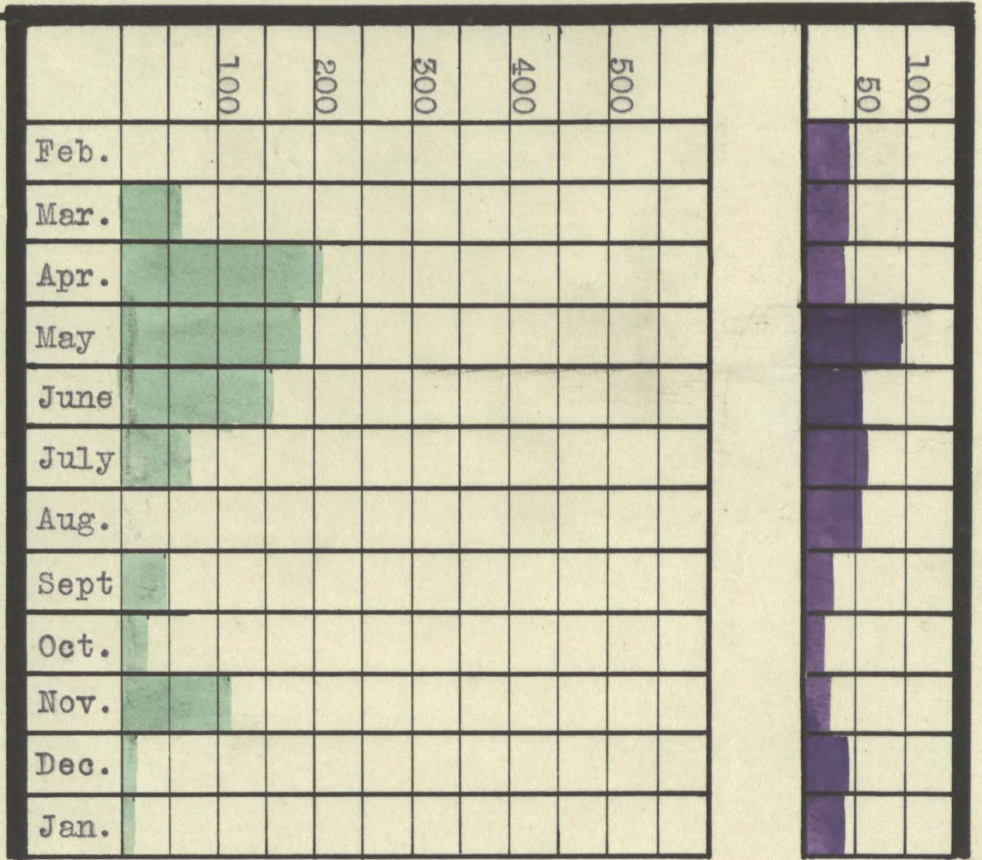


Total Labor Farm No. 12

Horse Hours



Men Hours
Field and Stock Labor Farm No. 12



Data Sheet For Farm No. 13 - General Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan	64.5	22.	73.75	---	415.75	147.5	2.5	2.5	418.25	150.	
Feb	23.	22.	76.	6.	200.	91.	12.	21.	212.	112.	
Mar.	72.	47.	83.5	12.	309.5	188.	105.	165.	414.5	353.	
Apr.	93.	42.	54.5	---	307.5	207	153.5	207.	461.	576.	
May.	48.5	30.	67.5	2.	186.	130.	290.	675.	476.	805.	
June	35.	4.	88.5	15.	204.5	57.5	284.5	495.	489.	552.5	
July	52.5	28.	82.5	---	293.	181.	215.5	461.	508.5	442.	
Aug.	80.	18.	103.	10.	233.	60.	150.5	132.	383.5	192.	
Sept.	91.	61.	90.	---	288.	151.	93.	79.	381.	230.	
Oct.	19.75	32.	98.	10.	229.75	111.	124.	158.	353.75	269.	
Nov.	23.5	18.	122.	36.	225.5	153.	73.	96.	298.5	249.	
Dec.	108.5	46.	117.75	34.	303.25	158.	9.	15.	312.25	173.	
Total	711.25	370.	1057.	125.	3195.75	1635.	1512.5	2568.5	4708.25	4103.5	

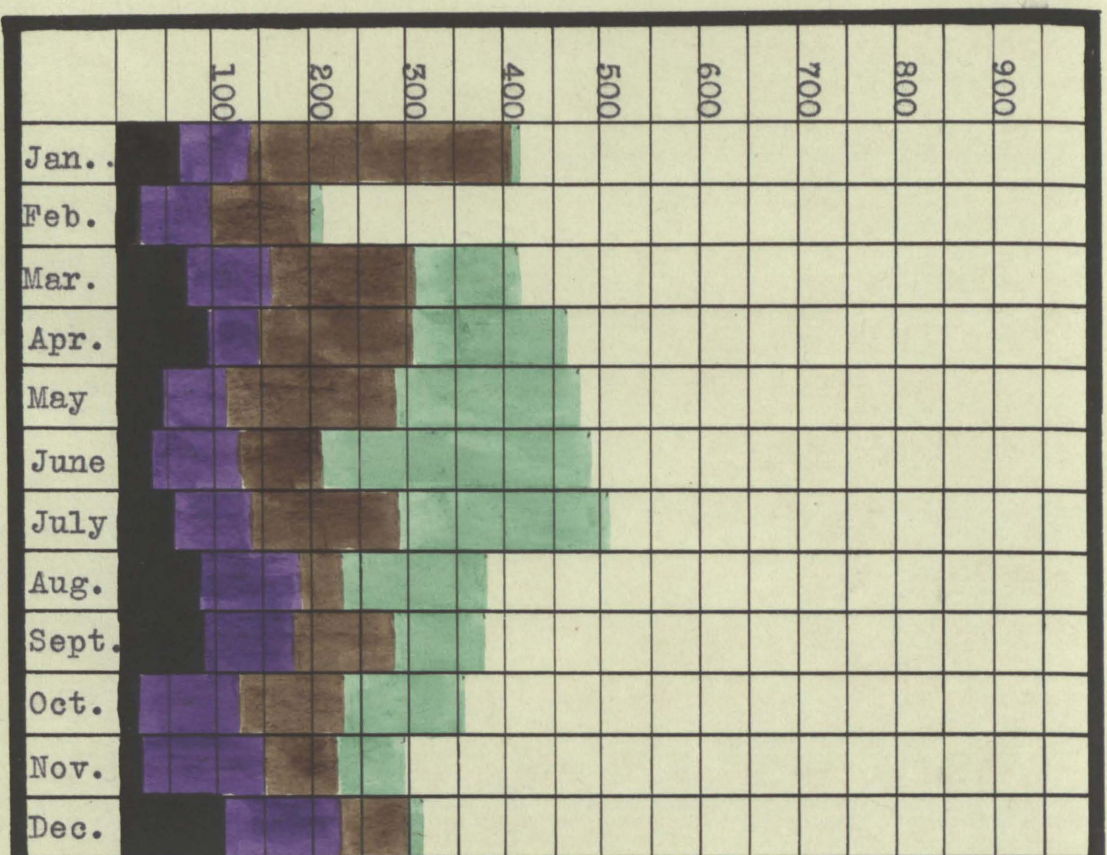
Total number of acres : 160
 Acres in pasture : 46
 " of corn : 62
 " " oats : 19
 " " wheat : 0
 " " clover : 0
 " " other hay : 4
 " " cowpeas : 3
 " " soybeans : 11.5
 " " alfalfa : 0

Class of Stock Ave. Number
 Horses 6.
 Cows 6.
 Other Cattle 2.
 Brood Sows 6.
 Other Hogs 29.73
 Sheep 18.5
 Poultry 167.
 Labor Income : \$523.
 Cost of Family Living : \$701.

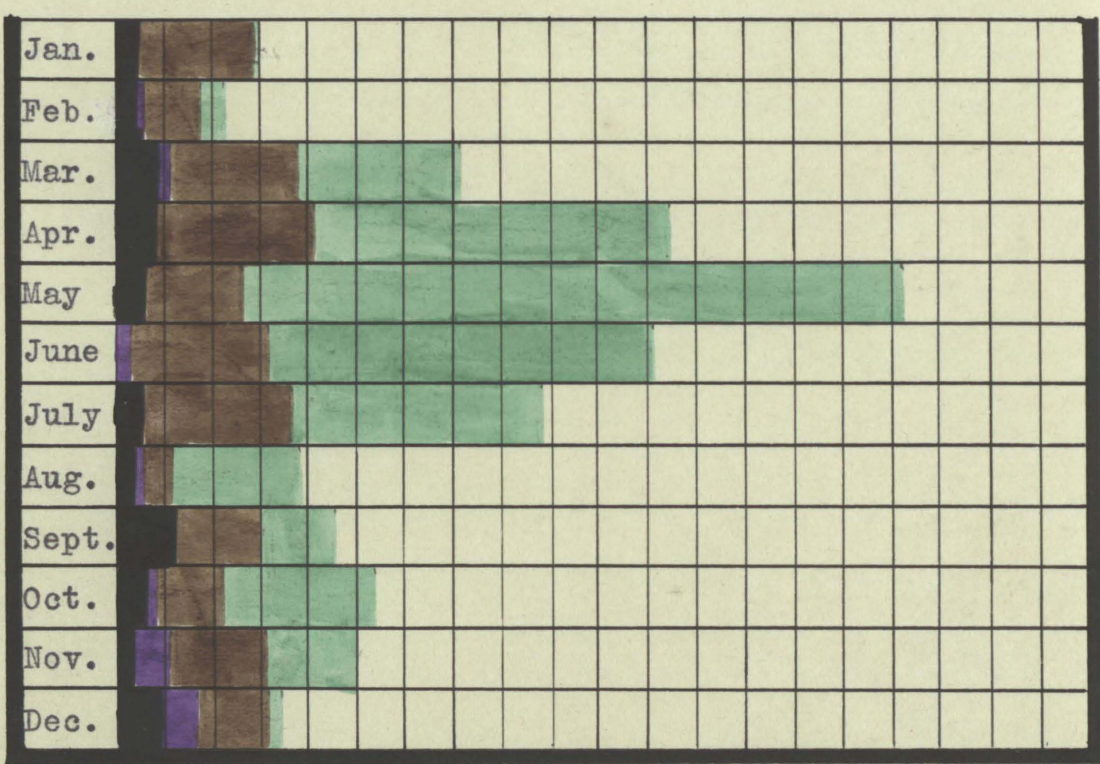
Animal Units
 6.
 2.08
 .55
 1.4
 7.
 .81
 1.37
 Total A. U. 19.21

Men Hours

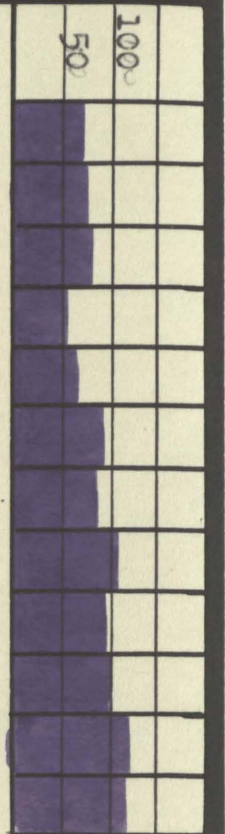
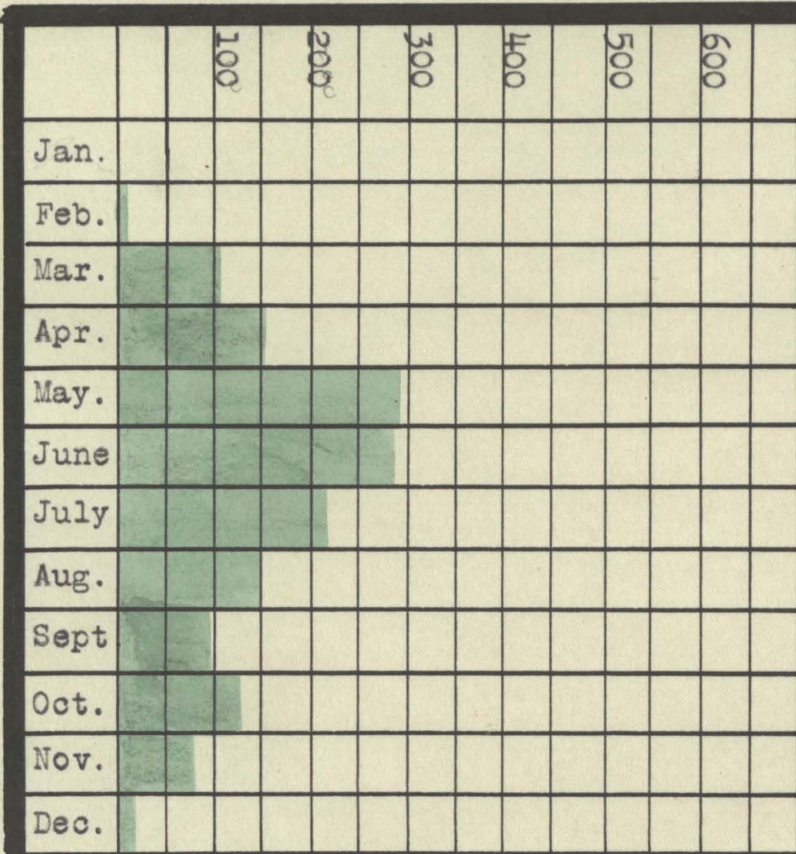
Total Labor Farm No. 15



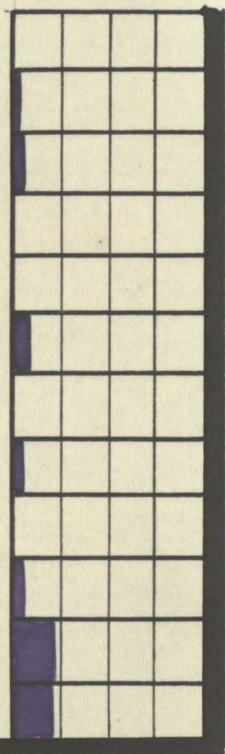
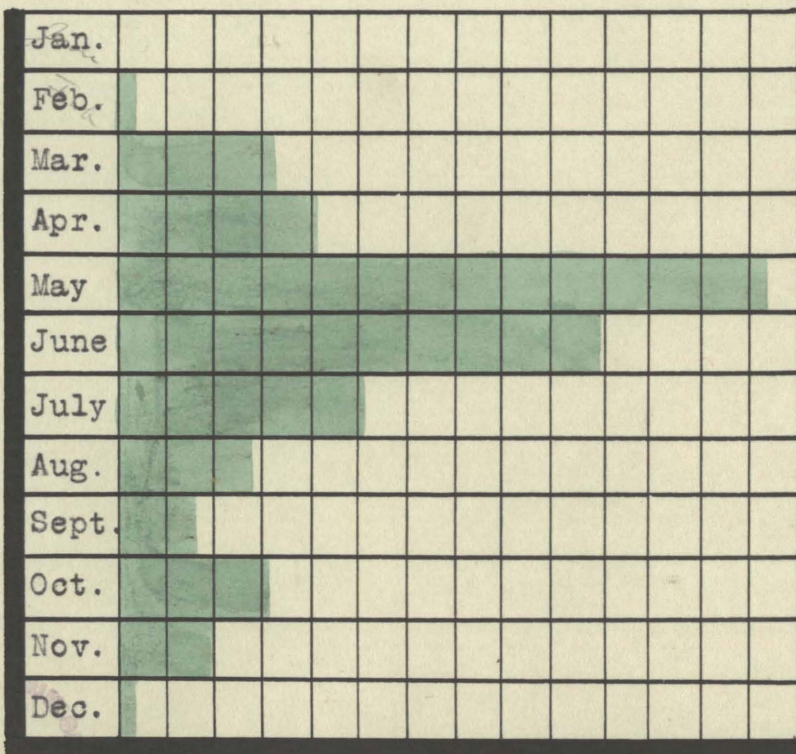
Horse Hours



Man Hours
Field and Stock Labor Farm No. 13



Horse Hours



Data Sheet For Farm No. 14 - Stock Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	67.0	8.0	190.0	76.0	350.5	245.	38.5	145.0	389.	390	10.8
Apr.	74.	17.	193.	103.	414.	296.	43.5	176.	457.5	472.	10.1
May	97	18.	171.	44.	468.5	141.	187.	623.5	655.5	764.5	11.7
June	110.	42.	190.5	26.	489.	151.	248.5	410.	737.5	561.	11.2
July	104.5	31.	130.	37	355.	175	235.5	343.	590.5	518.	10.8
Aug	115.5	39	158.5	10.	946.	326.	211.5	181.	1157.5	507.	11.9
Sept.	198.5	111.	150.	48.	504.5	340.	112.	190.	616.5	530.	11.1
Oct.	113.	177.	130.5	34.	487.5	359.	131.5	219.	619.	578.	10.
Nov.	69.	96.	131.	7.	379.	269.	62.5	198.	441.5	467.	9.8
Dec.	112.5	97.5	253.5	35.	472.5	333.5	22.	84.	494.5	417.5	10.3
Jan.	107.5	113.	197.75	80.5	416.	329.5	1.	2.	417.	331.5	9.2
Feb.	115.5	68.5	136.	96.5	324.	338.5	8.	16.	332.	354.5	8.7
Total	1284.	818.	2031.75	597.	5606.5	3303.5	1301.5	2587.5	6908.	5891.	10.6

Total number of acres : 160
 Acres in pasture : 73
 " of corn : 31
 " " oats : 18
 " " wheat : 0
 " " clover : 8
 " " other hay : 17
 " " cowpeas : 10
 " " soybeans : 0
 " " alfalfa : 3

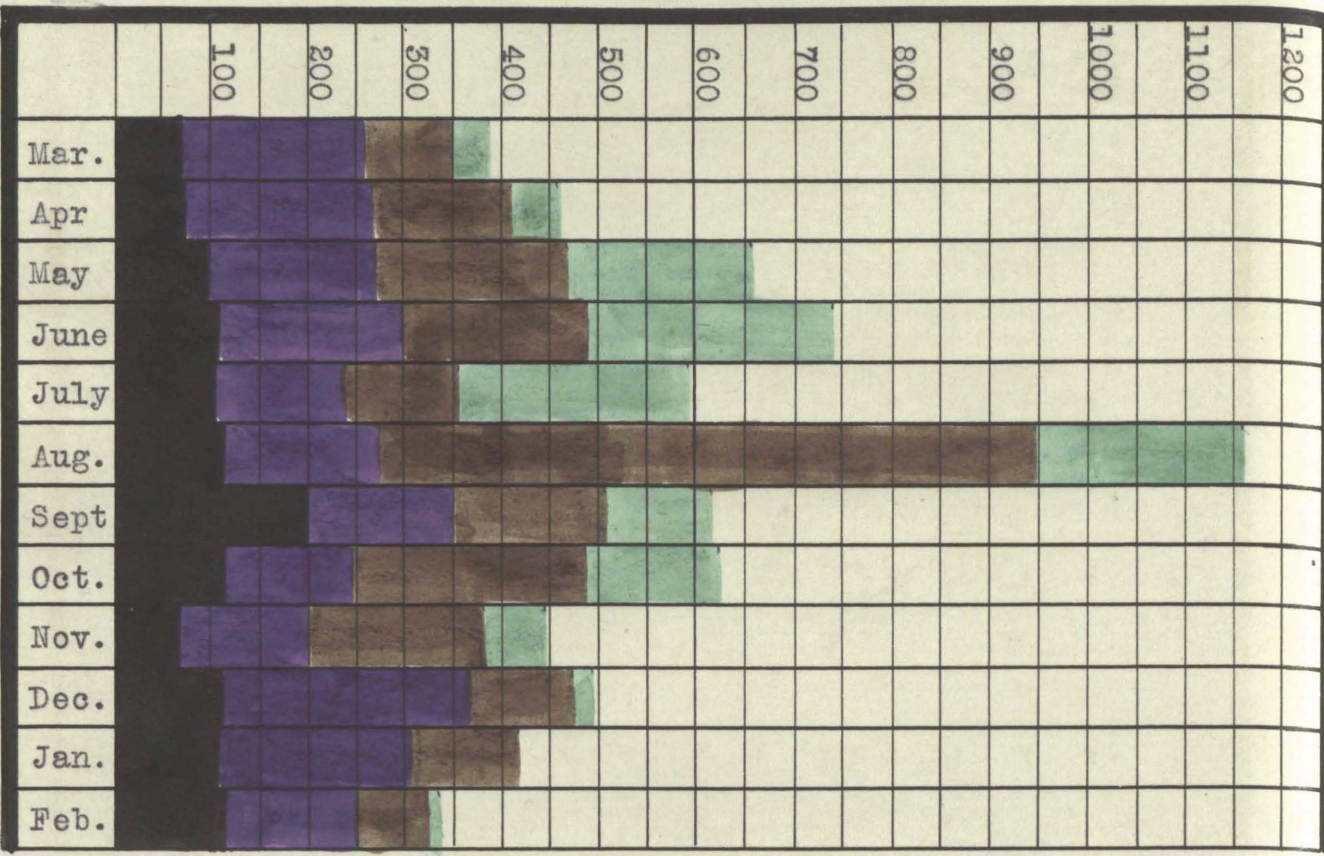
Class of Stock
 Horses
 Cows
 Other Cattle
 Brood Sows
 Other Hogs
 Sheep
 Poultry
 Labor Income :
 Cost of Family Living :

Ave. Number
 7.66
 2.75
 20.
 14.83
 71.
 0.
 0.
 -589.51
 :362.

Animal Units
 7.1
 .95
 4.76
 3.47
 16.47

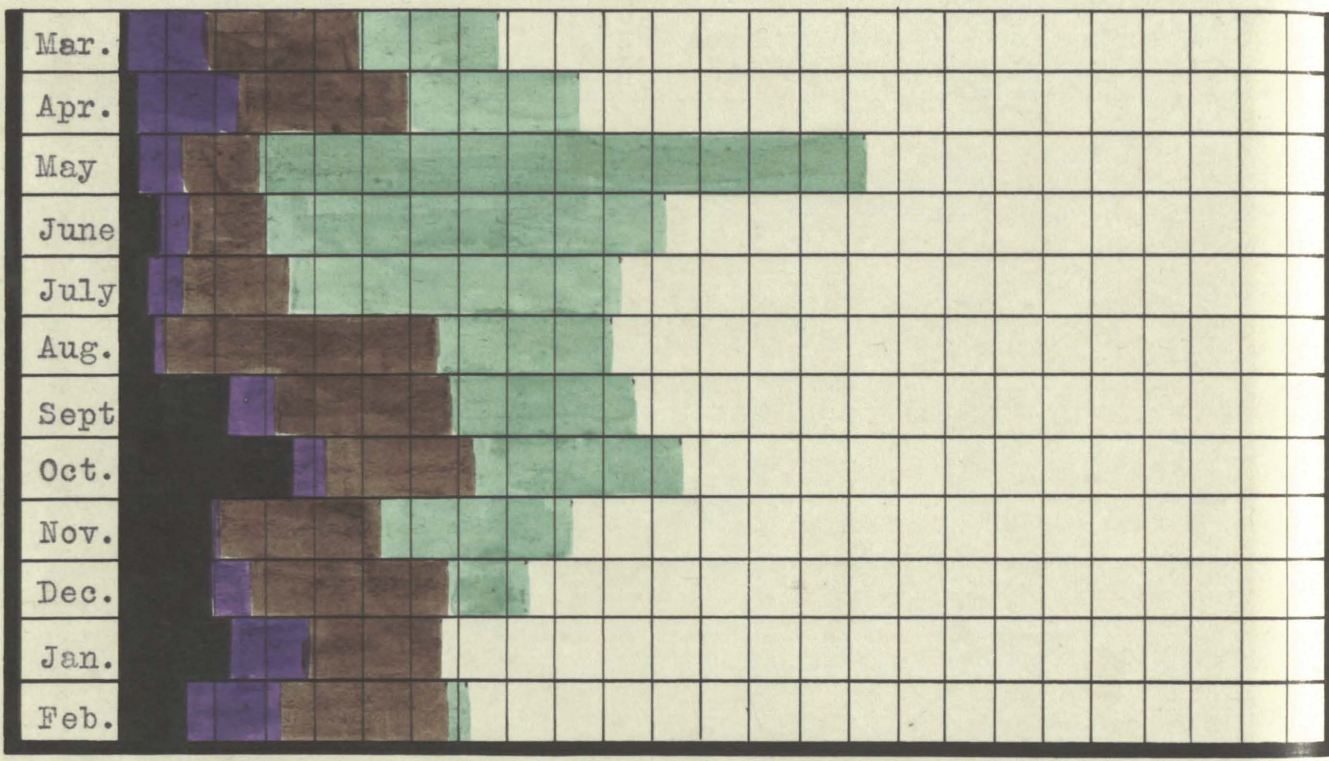
Total A. U. 36.18

Man Hours



Total Labor Farm No. 14

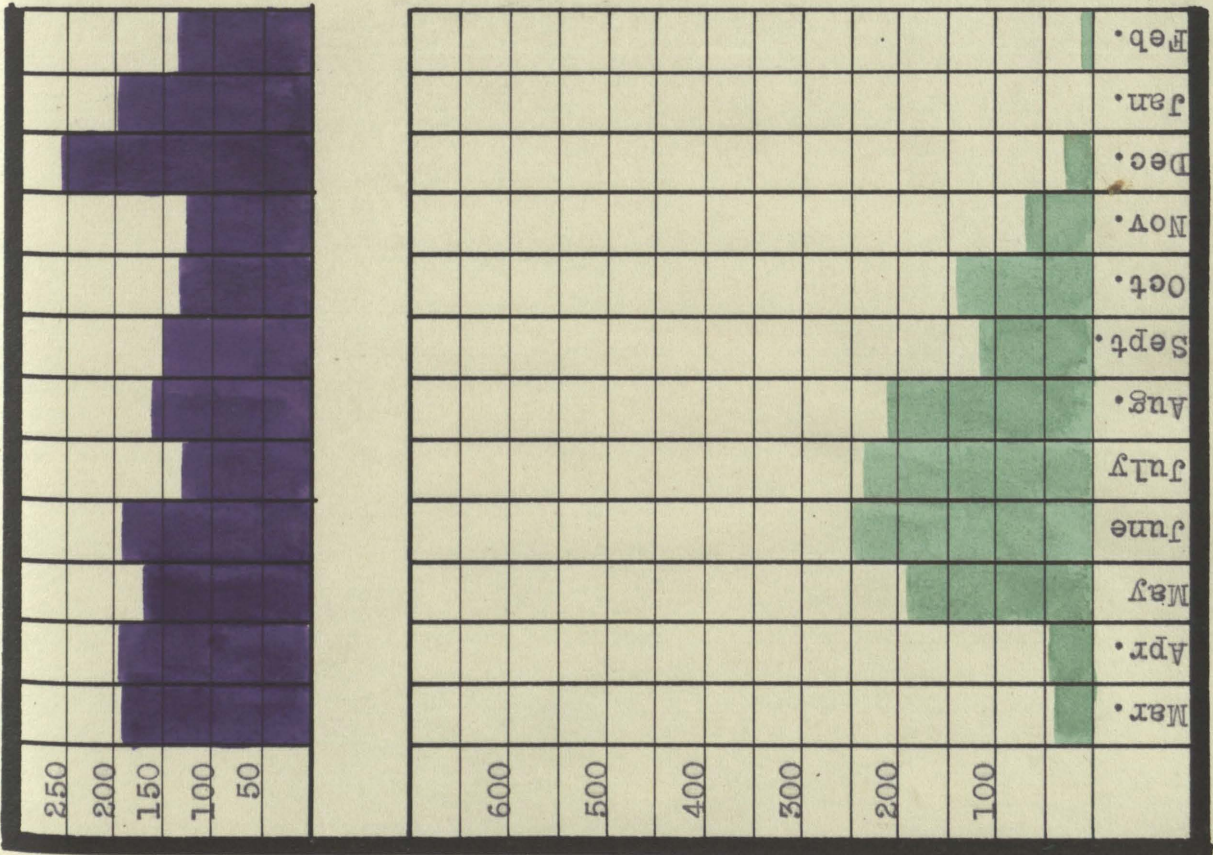
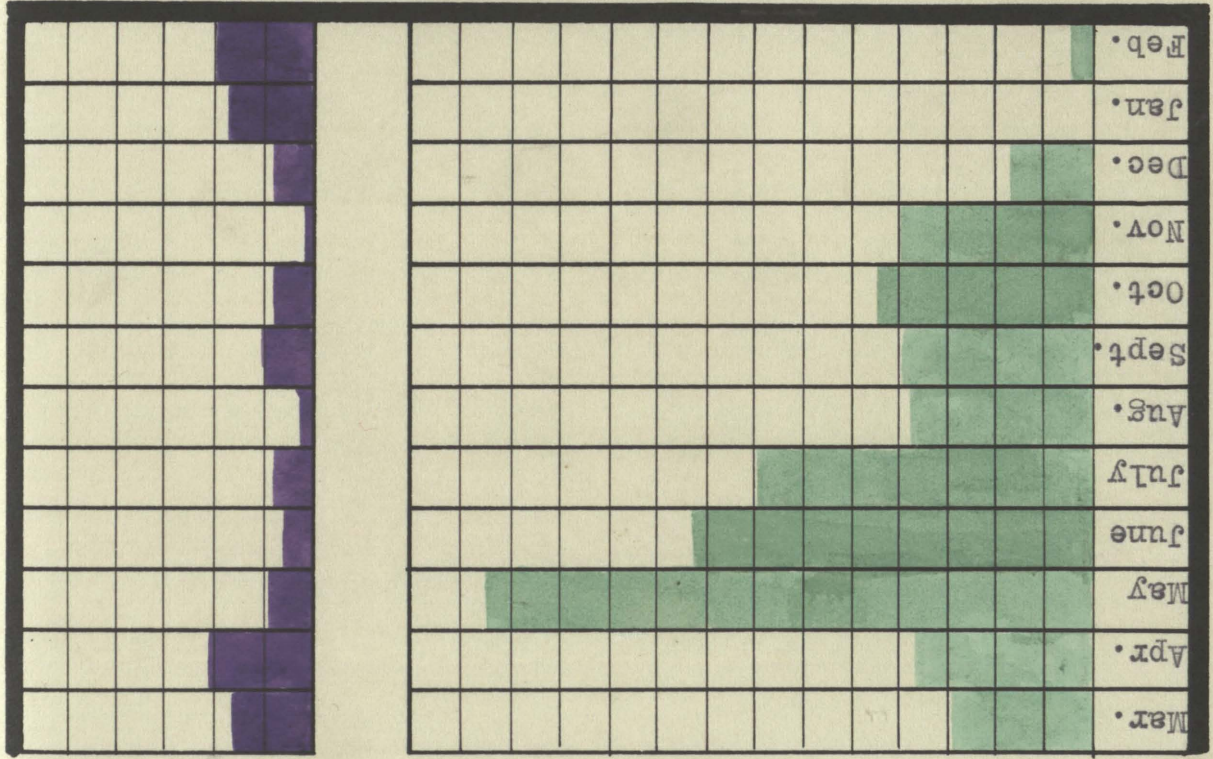
Horse Hours



Horse Hours

Field and Stock Labor Farm No. 14

Man Hours

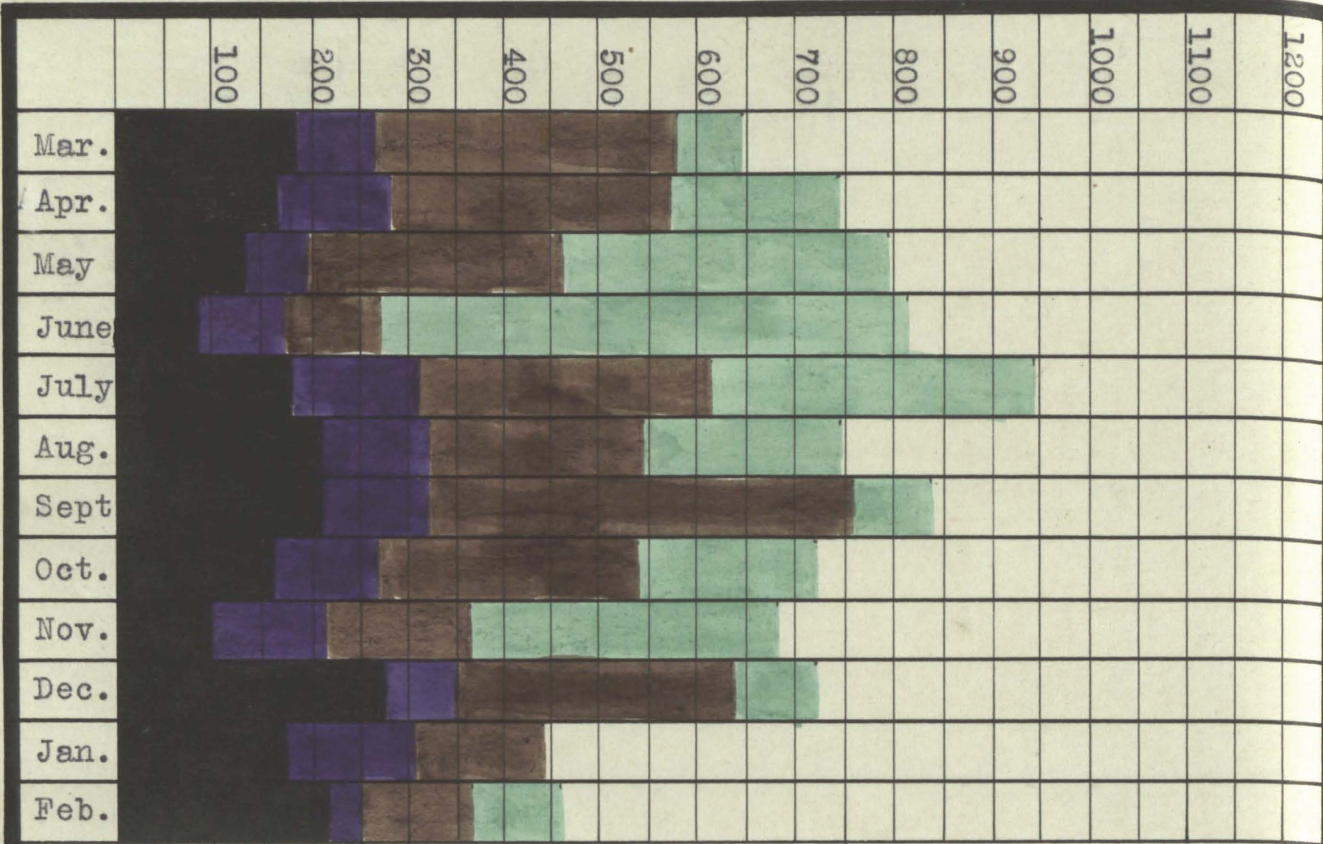


Data Sheet For Farm No. 15 - Stock Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	185.	80.	80.	-----	579.5	219.	68.	150	647.5	369.	9.5
Apr.	165.	24.	116.	-----	572.	239.	169.	471.	741.	710.	9.3
May	129.	14.	65.5	4.5	457.	199.	333.	873.	790.	1072.	9.9
June	84.	15.	87.5	-----	272.	79.	538.5	812.	810.5	891.	10.6
July	178.5	7.	134.5	-----	612.5	476.	334.	317.	946.5	793.	10.5
Aug.	209.5	45.	110.	-----	541.	246.	202.	384.	743.	630.	12.0
Sept.	210.5	89.	103.5	2.5	757.5	472.	78.5	170.	836.	642.	12.3
Oct.	160.	6.	112.	20.	543.	178.	174.5	301.	717.5	479.	12.3
Nov.	95.	2.	73.	16.	361.5	223.	220.	307.	581.5	530.	13.6
Dec.	277.75	78.	135.	4.	634.75	202.	86.	111.	720.75	313.	13.4
Jan.	169.	8.	153.	-----	438.	54.	-----	-----	438.	54.	10.5
Feb.	214.	48.	97.	-----	400.	94.	57.	112.	457.	206.	12.0
Total	2077.25	416.	1267.	46.5	6168.75	2681.	2260.5	4008.	8429.25	6689.	10.8

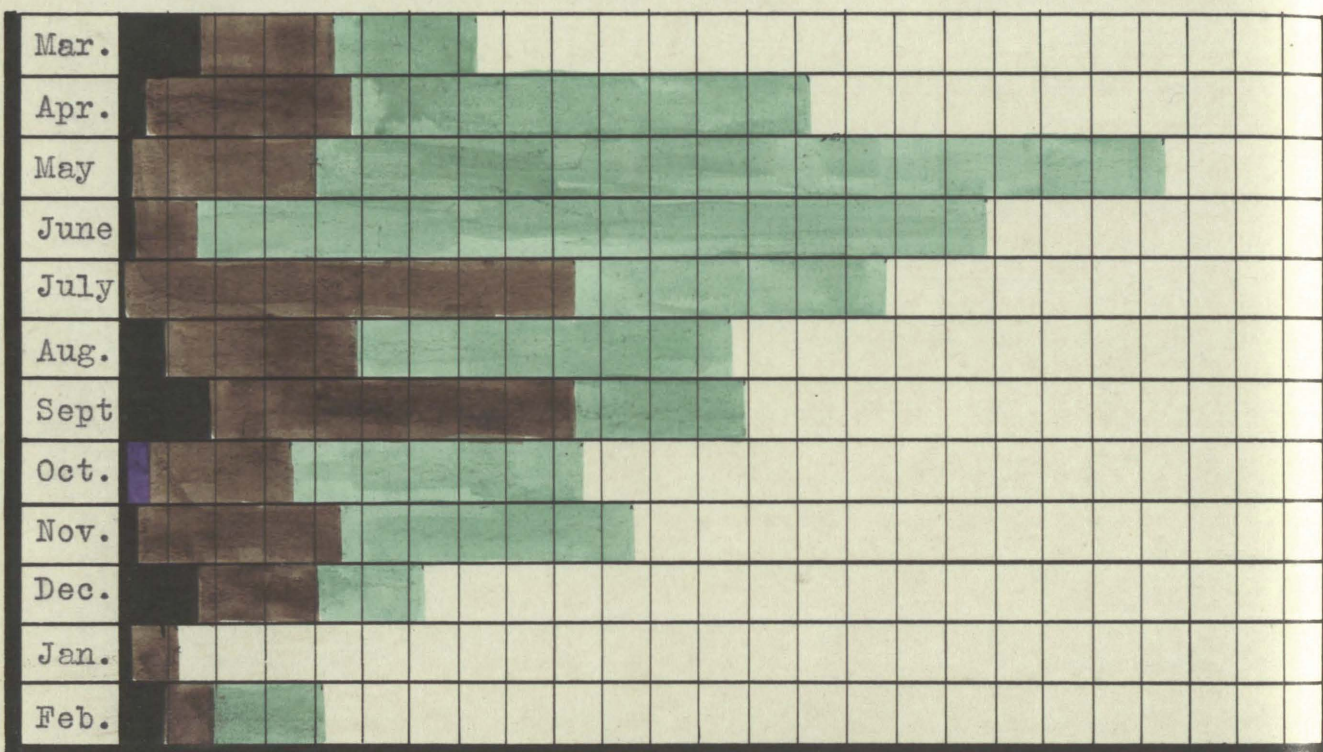
Total number of acres :	230	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	11	Horses	19.	12.67
" of corn :	36	Cattle	3.	1.04
" " oats :	0	Hogs	37.3	9.21
" " wheat :	60	Poultry	50.	.41
" " clover :	30	Labor Income :		<u>Total A. U. 23.33</u>
" " other hay :	0			
" " cowpeas :	0			
" " soybeans :	0			
" " alfalfa :	28			

Man Hours

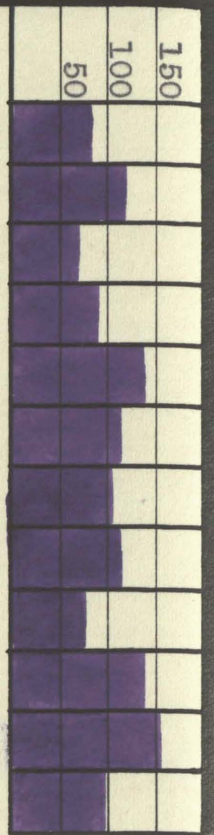
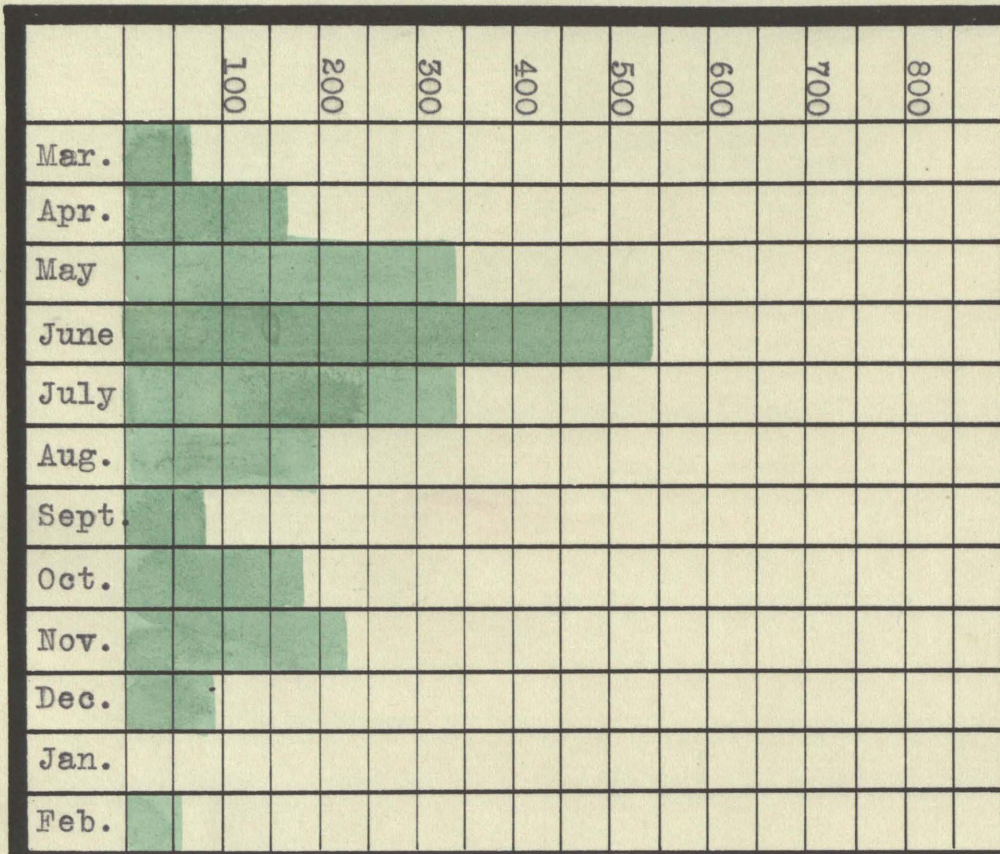


Total Labor Farm No. 15

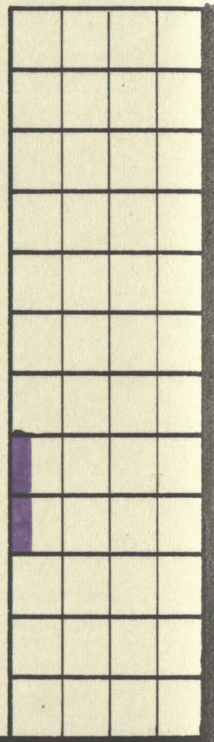
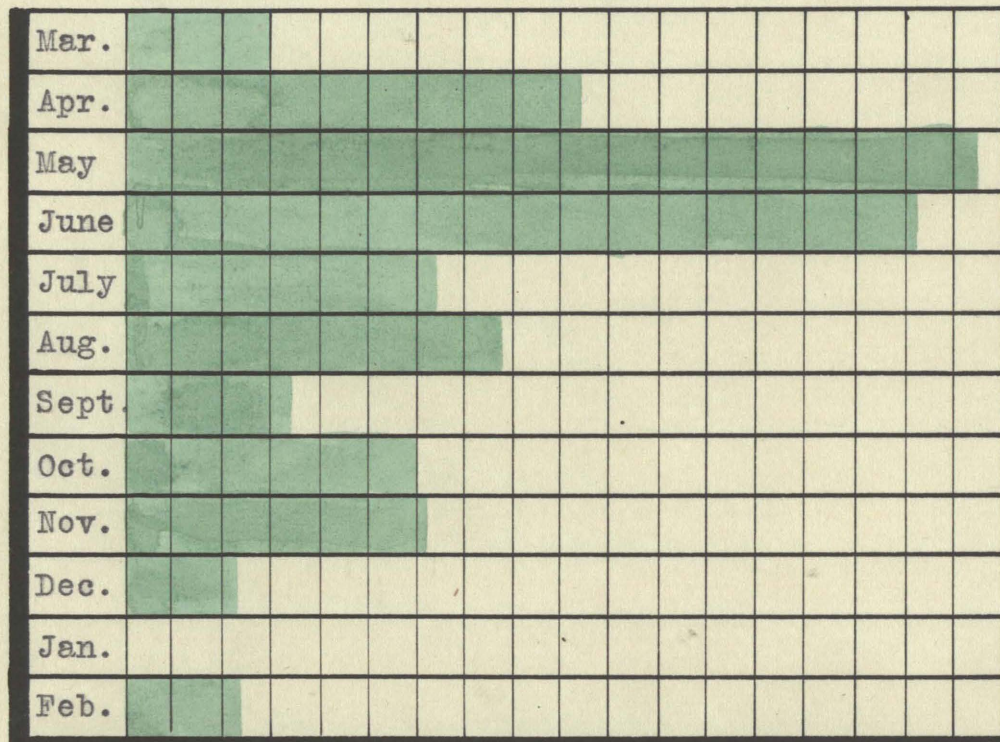
Horse Hours



Men Hours
Field and Stock Labor No. 15



Horse Hours



Data Sheet For Farm No. 16 - Stock Farm

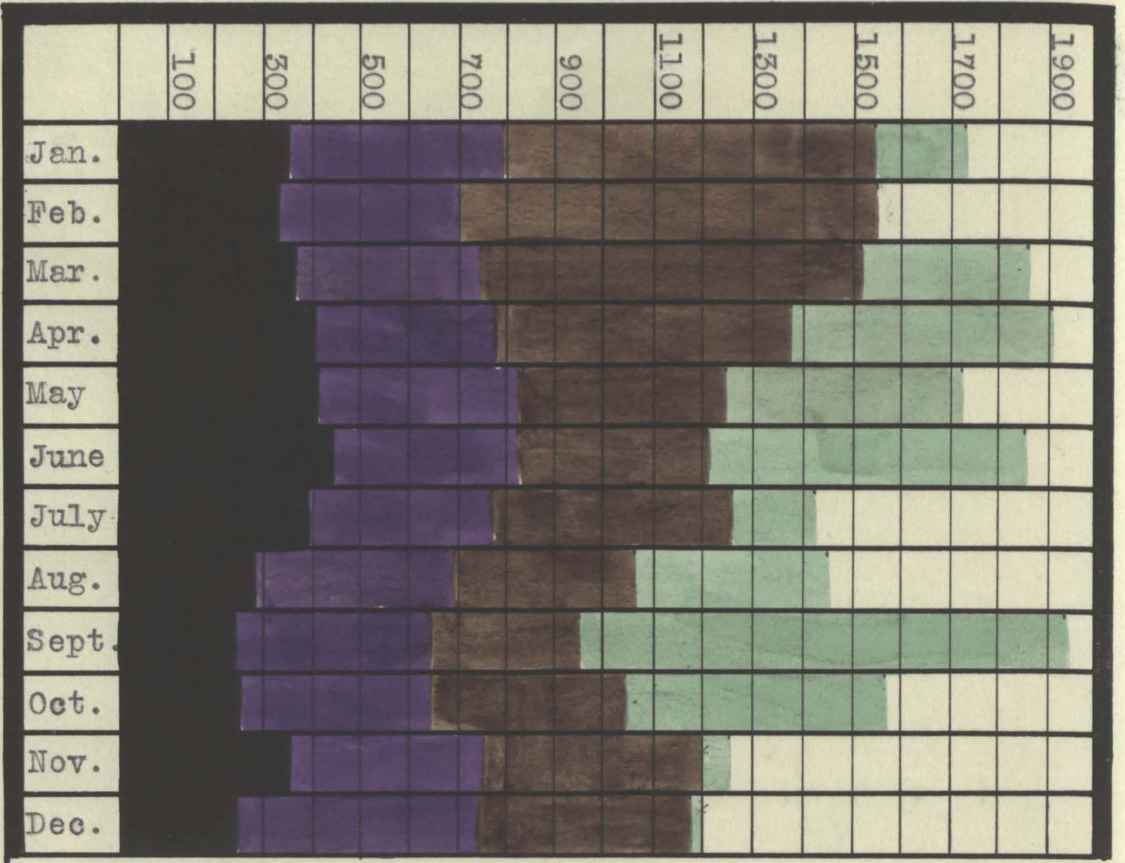
Month	Maintenance		Stock		Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	360.5	20.	431.5	41.	1539.	969.	192.	520.	1731.	1489.	10.3
Feb.	335.5	38.	367.5	2.	1550.5	1275.	-----	-----	1550.5	1275.	9.8
Mar.	371.	16.	380.5	7.	1513.	1010.	352.5	698.	1865.5	1708.	9.7
Apr.	406.5	44.	376.5	30.	1378.	698.	526.5	1188.	1904.5	1886.	9.7
May	413.	26.	411.	38.	1258.	392.	464.	871.	1722.	1263.	9.7
June	447.	40.5	373.	25.	1208.	323.5	656.	794.	1864.	1117.5	9.4
July	389.	46.	381.5	28.	1265.	453.	156.	191.	1421.	644.	9.1
Aug.	283.5	20.	480.75	63.	1060.	531.	391.	388.5	1451.	919.5	9.7
Sept.	245.5	15.	392.5	53.	956.5	436.	972.5	1066.5	1929.	1592.5	9.9
Oct.	259.5	28.	389.	18.	1038.5	489.	532.5	665.5	1571.	1154.5	9.7
Nov.	353.5	31.	407.5	23.	1200.	474.	57.5	130.	1257.5	604.	9.7
Dec.	242.5	5.	506.	3.	1180.5	558.	21.	50.	1201.5	608.	10.6
Total	4107.	329.5	4825.25	331.	15147.	7608.5	4321.5	6563.5	19468.5	14171.	9.8

Total number of acres : 326.5
 Acres in pasture : 122.25
 " of corn : 45.
 " " oats : 0
 " " wheat : 0
 " " clover : 13
 " " other hay : 0
 " " cowpeas : 0
 " " soybeans : 4.75
 " " alfalfa : 10.

Class of Stock
 Horses
 Cows
 Other Cattle
 Mature Hogs
 Sheep
 Poultry
 Labor Income :
 Cost of Family Living :

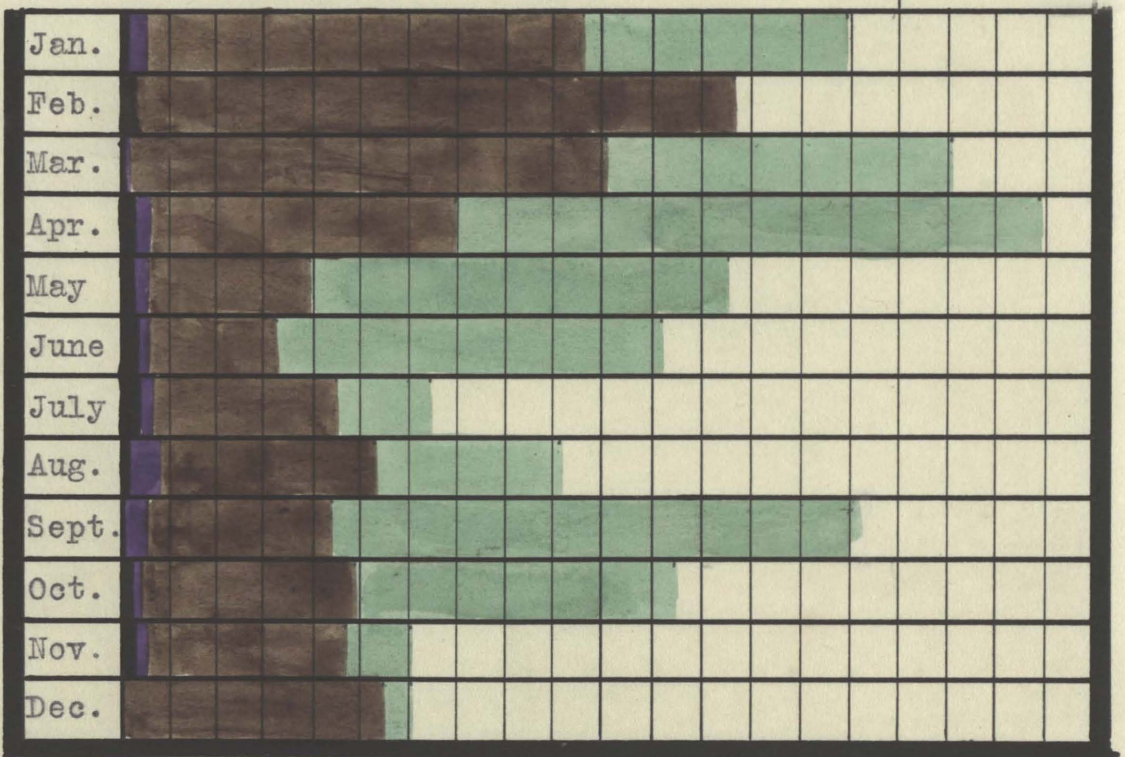
Ave. Number
 5.75
 28.
 46.
 11.
 0.
 85.
 -\$498.74

Animal Units
 5.75
 15.2
 12.67
 3.94
 .7
 Total A. U. 38.26



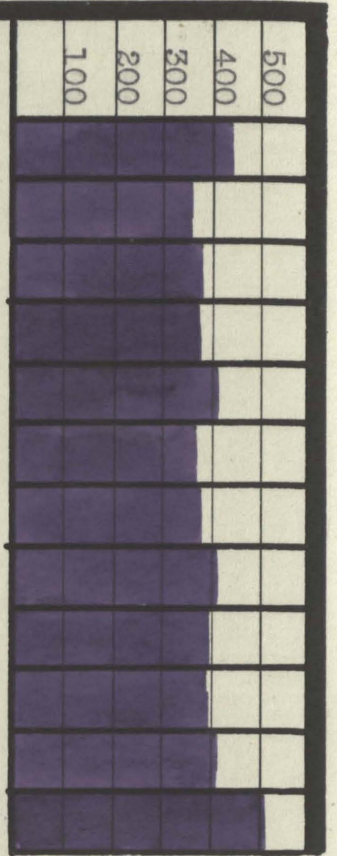
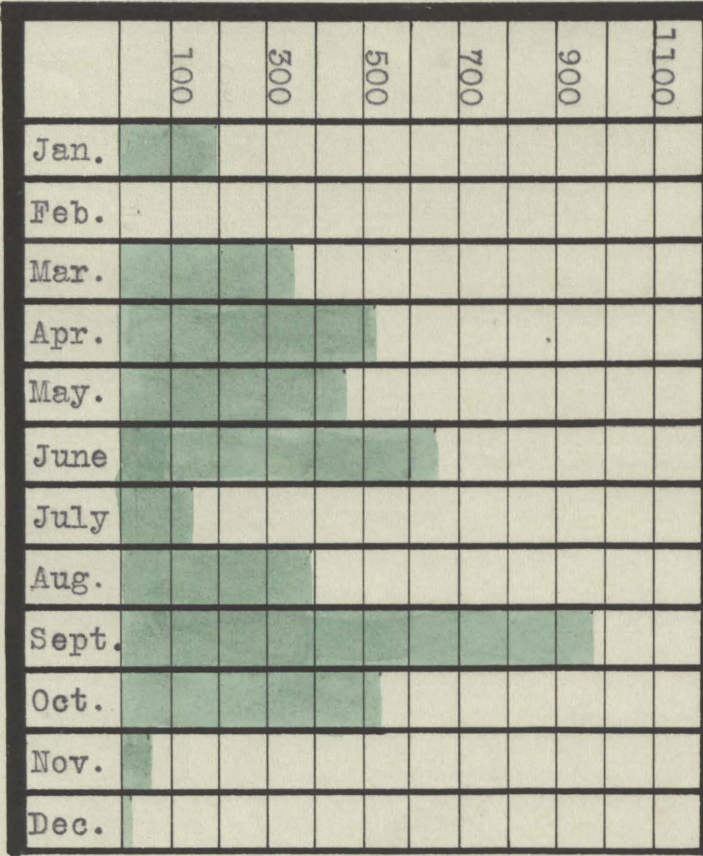
Man Hours

Total Labor Farm No. 16

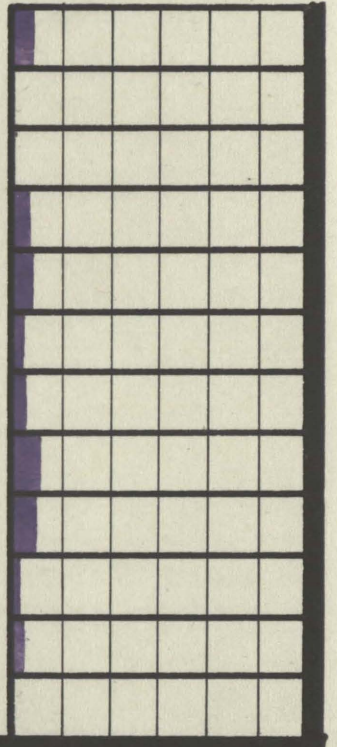
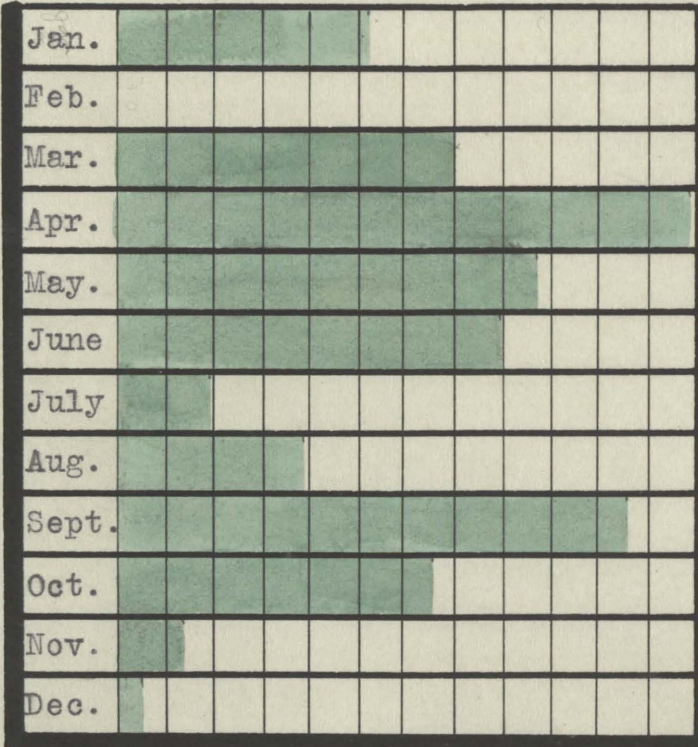


Horse Hours

Men Hours
Field and Stock Labor Farm No. 16



Horse Hours



Data Sheet For Farm No. 17 - Dairy Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	148.	32.5	616.5	20.	1071.	467.5	179.5	440.5	1250.5	907.5	10.5
Apr.	192.5	69.5	731.5	34	1302.	539.5	245.5	729.	1547.5	1268.5	10.0
May	174.	47.	837.	90.5	1643.	453.	441.5	1154.	2084.5	1607.	10.4
June.	167.5	31.	725.	42.	1533.	325.	608.5	1058.	2141.5	1383.	10.6
July	158.	27.	760.5	49.	1525.5	355.5	694.5	1338.	2220.	1693.5	10.6
Aug.	141.	21.	967.5	29.5	1811.	473.5	503.	1059.	2314.	1532.5	11.3
Sept.	167.	33.	905.5	32.5	1523.5	326.5	464.	1018.	1987.5	1344.5	11.8
Oct.	199.	36.5	975.	101.	1750.5	553.	717.5	890.5	2468.	1443.5	11.6
Nov.	225.	66.	830.	31.	1979.5	497.5	336.	804.	2315.5	1301.5	10.8
Dec.	210.	58.	977.	50.5	2091.5	464.5	104.	362.	2195.5	826.5	10.2
Jan.	144.5	63.	837.	102.5	1520.	457.5	32.5	65.	1552.5	522.5	9.7
Feb.	209.	70.	792.	26.	1375.5	364.5	138.5	175.	1514.	539.5	9.8
Total	2133.5	554.5	9954.5	608.5	19126.	5277.	4465.	9093.	23591.	14370.	10.6

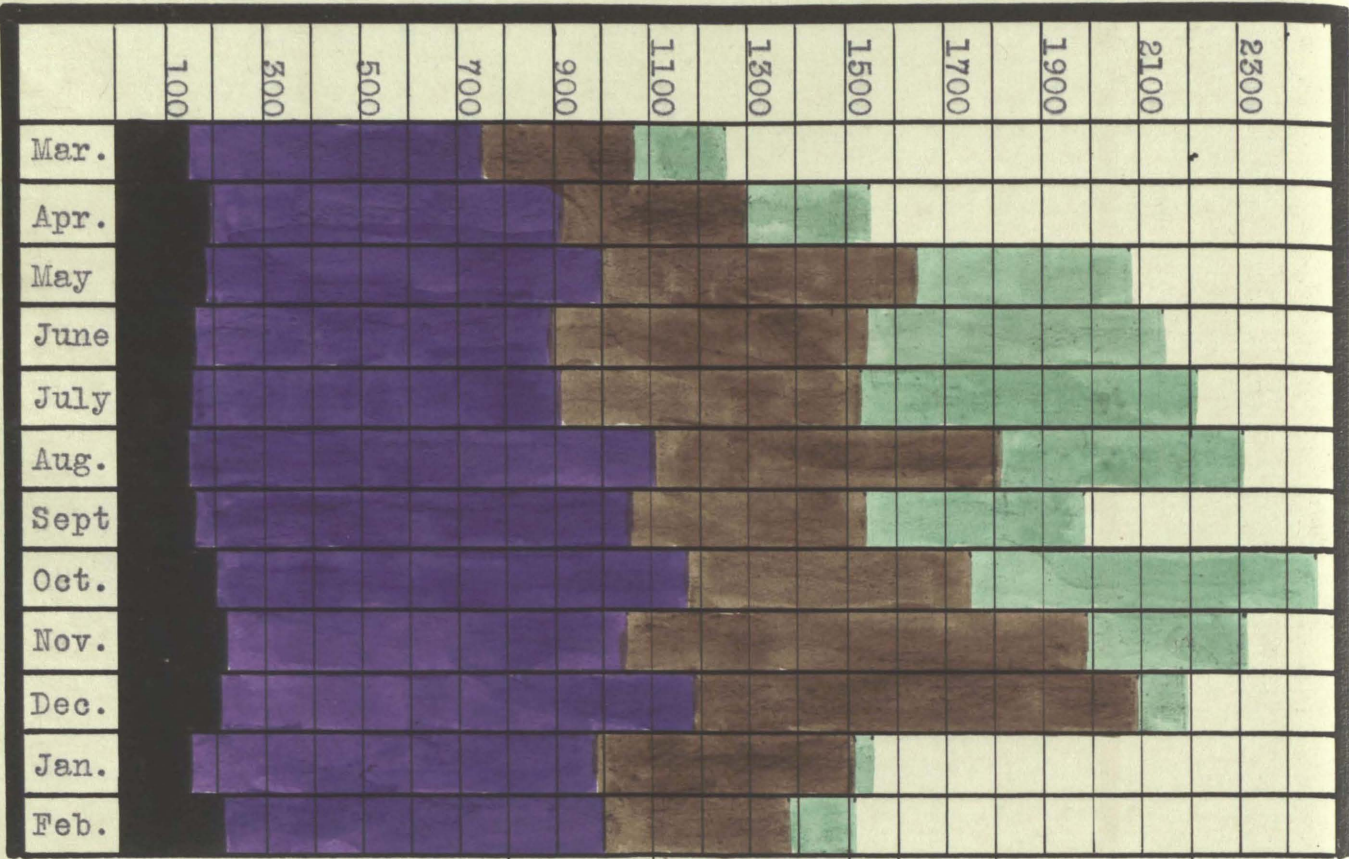
Total number of acres : 277
 Acres in pasture : 70
 " of corn : 63
 " " oats : 42
 " " wheat : 0
 " " clover : 0
 " " other hay : 4
 " " cowpeas : 0
 " " soybeans : 16
 " " alfalfa : 15

Class of Stock
 Horses
 Cows
 Other Cattle
 Brood Sows
 Other Hogs
 Sheep
 Poultry
 Labor Income : -----
 Cost of Family Living : \$260.

Ave. Number
 14.75
 28.4
 22.5
 21.1
 80.5
 74.7
 205.

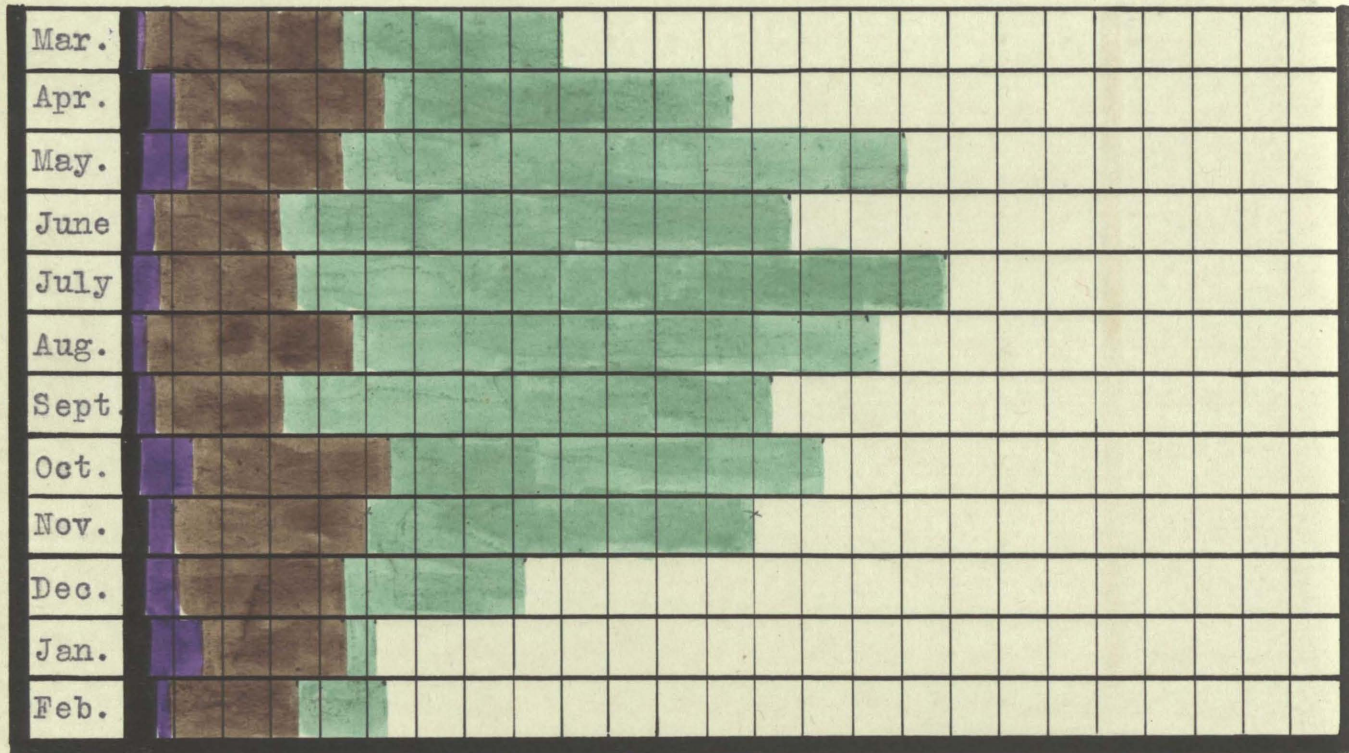
Animal Units
 11.75
 15.42
 6.35
 4.94
 14.30
 3.56
 1.68
 Total A. U. 58.88

Man Hours

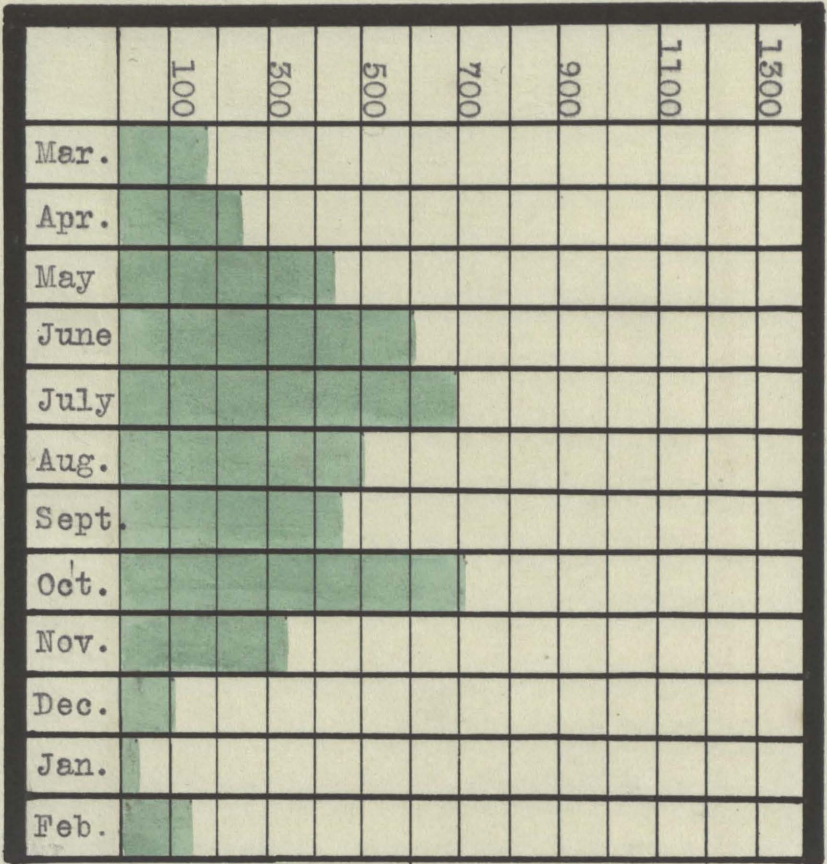


Total Labor Farm No. 17

Horse Hours

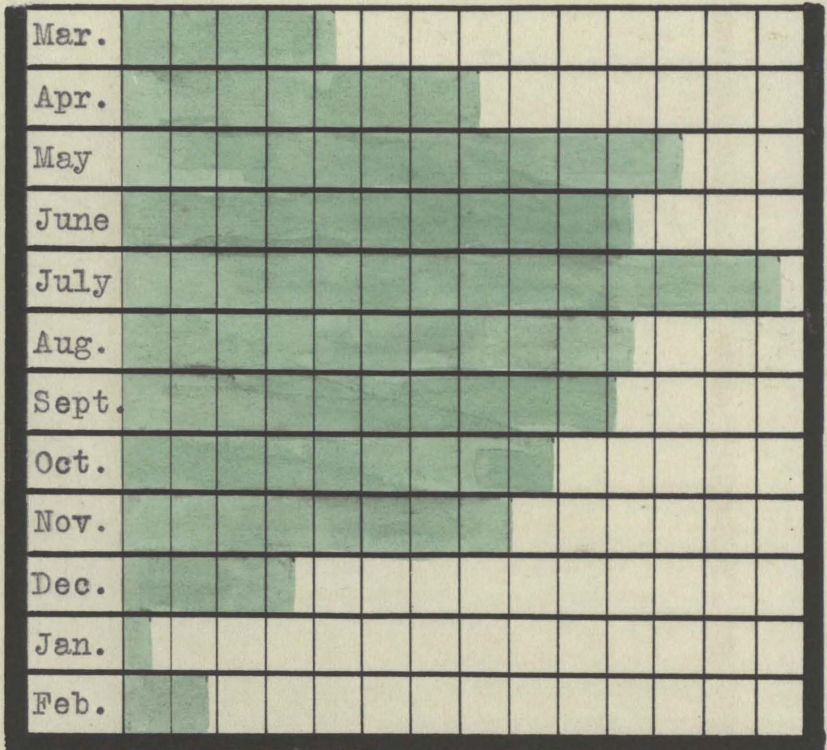


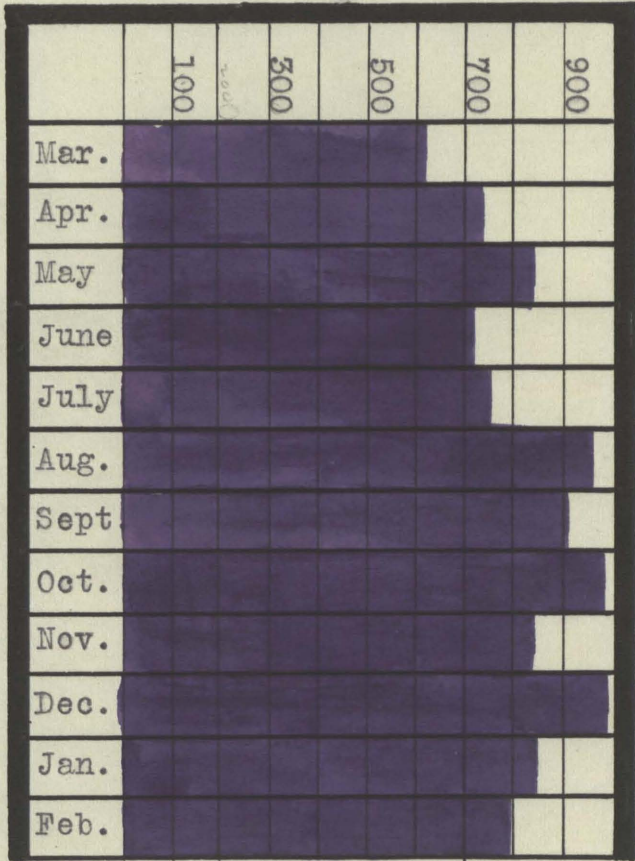
Man Hours



Field Labor Farm No. 17

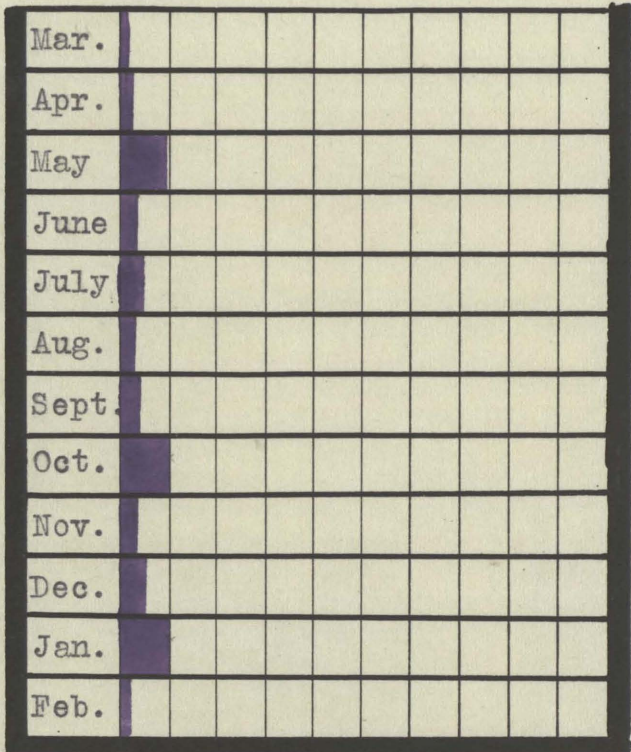
Horse Hours





Man Hours

Stock Labor Farm No. 17

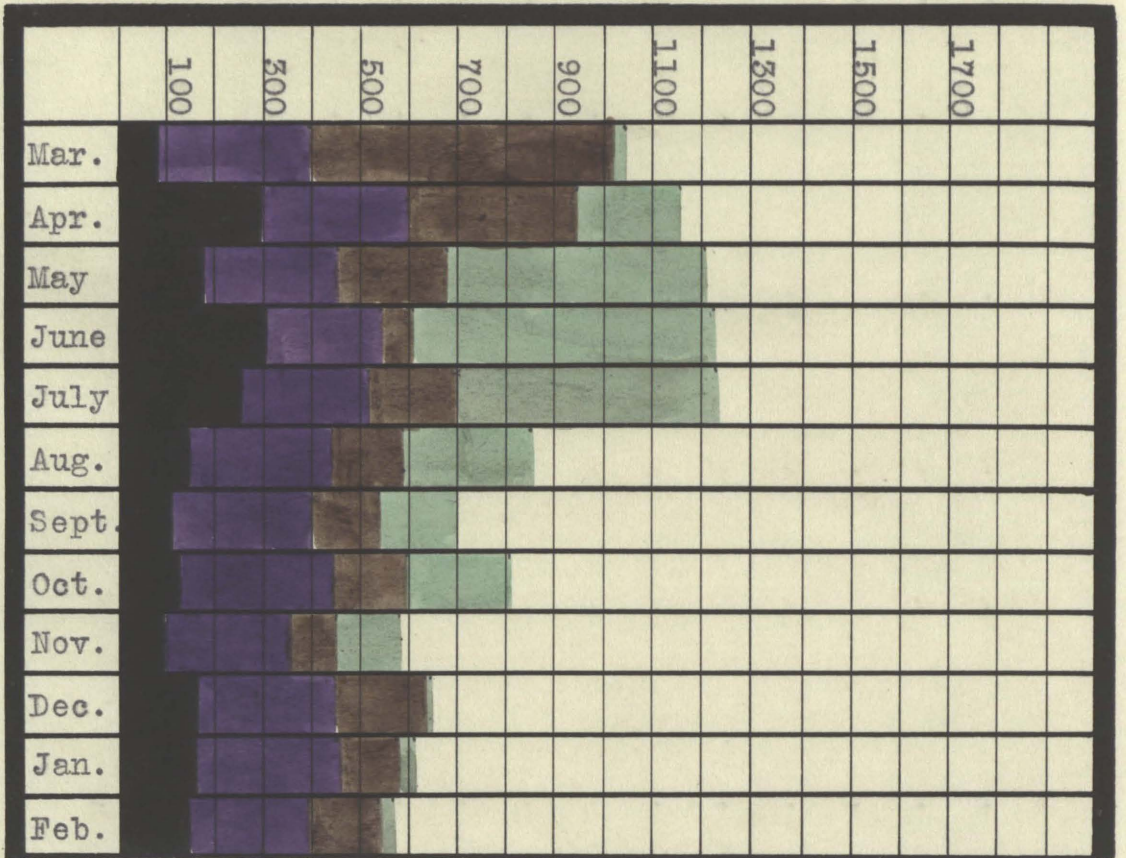


Horse Hours

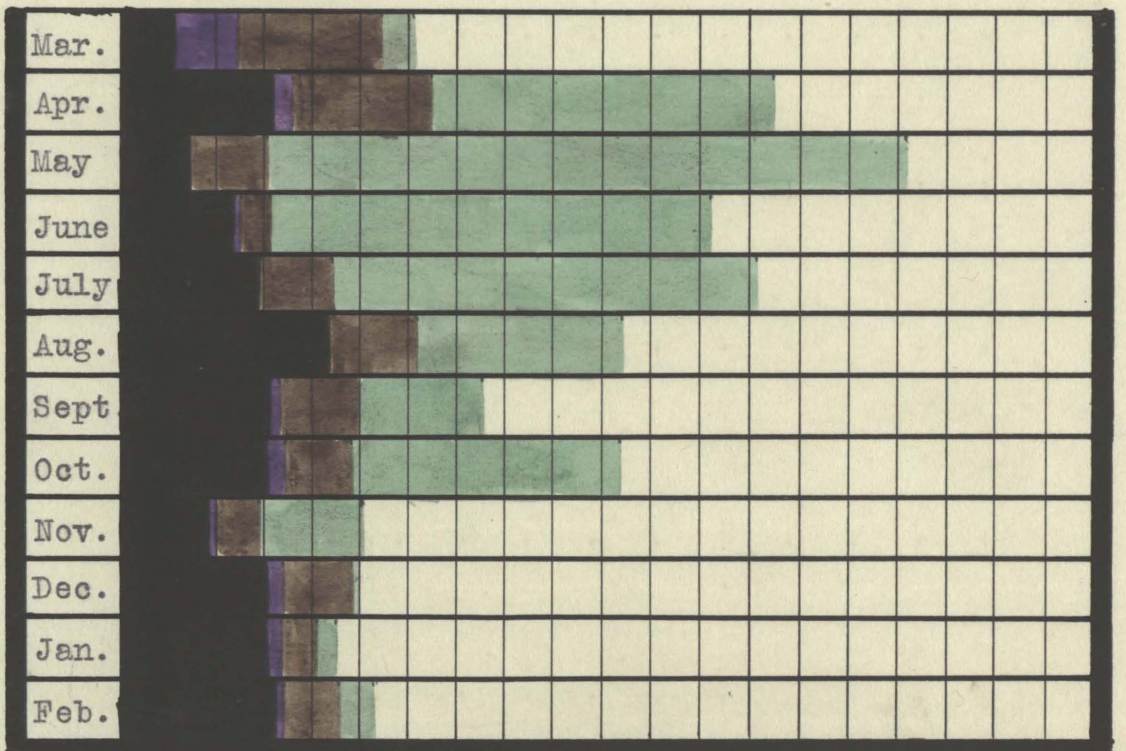
Data Sheet For Farm No. 18 - Stock Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	82.	114.	313.	142.5	1015.	541.5	30.5	72.	1045.5	613.5	10.4
Apr.	292.	319.	308.	45.	944.5	651.	216.5	695.	1161.	1346.	12.2
May.	177.5	144	278.5	-----	678.	307.	527.5	1315.	1205.5	1622.	13.7
June	306.	237.	218.	13.	605.5	315.	622.	1087.	1227.5	1402.	11.0
July	261.5	294.	260.	3.	697.	444.	533.	871.	1230.	1315.	10.7
Aug.	147.5	439.	294.	2.	586.	625.	269.	421.	855.	1046.	8.5
Sept.	114.	314.	287.	24.	541.	502.	158.	257.	699.	759.	10.0
Oct.	127.	312.	320.	45.	594.	483.	212.	555.	806.	1038.	10.2
Nov.	96.	186.	267.	14.	454.	290.	129.	214.	583.	504.	7.0
Dec.	172.	306.	279.	34.	627.	481.	15.	19.	642.	500.	7.4
Jan.	165.	305.	298.5	35.	582.5	413.	32.	39.	614.5	452.	7.2
Feb.	145.5	331.	247.	12.	534.5	468.	40.	59.	574.5	527.	7.4
Total	2086.	3361.	3370.	369.5	7809.	5520.5	2784.5	5604.	10643.5	11124.5	9.6

Total number of acres :	319	Class of Stock	Ave. Number	Animal Units
Acres in pasture :	101	Horses	11.33	11.33
" of corn :	64	Cattle	32.6	10.43
" " oats :	16	Brood Sows	24.	5.62
" " wheat :	40	Other Hogs	166.25	41.06
" " clover :	0	Pigs	68.	4.66
" " Other hay :	14	Poultry	225.	1.85
" " cowpeas :	0	Labor Income :	\$1880.	Total A.U. 74.95
" " soybeans :	0	Cost of Family Living:	1533.	96
" " alfalfa :	24			

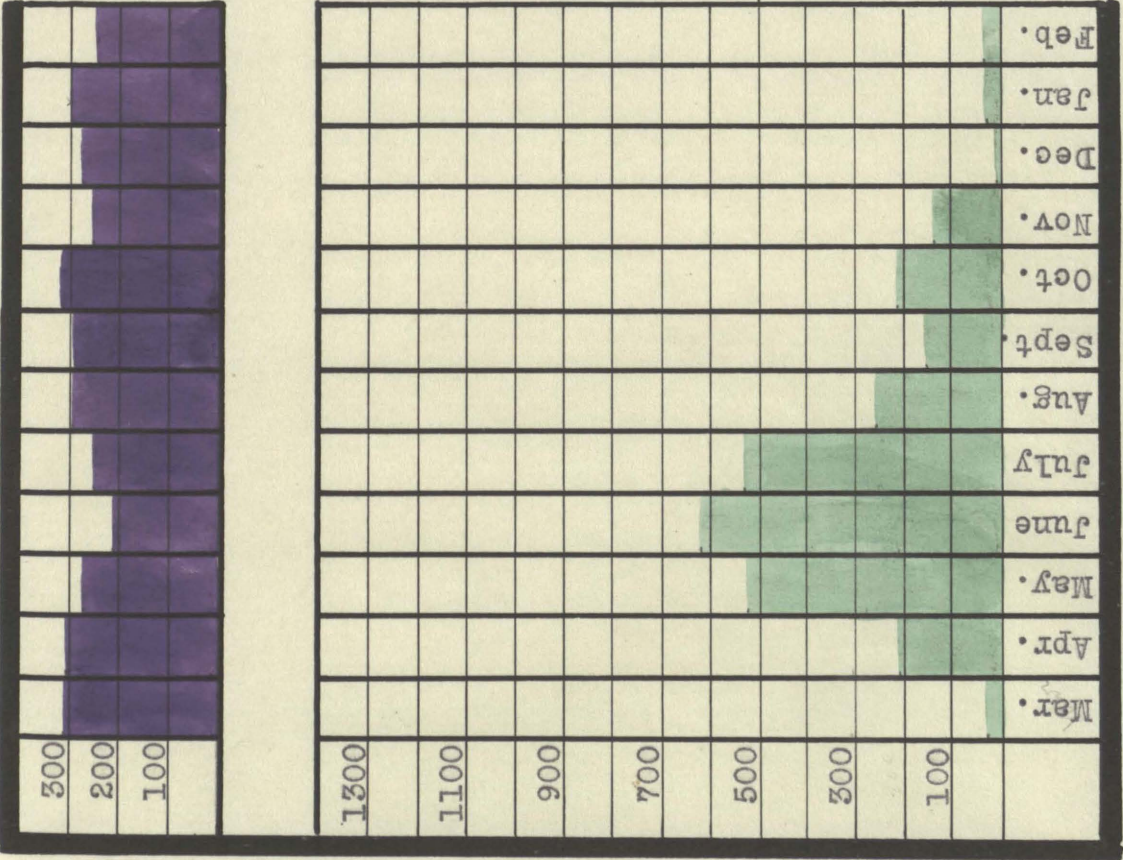
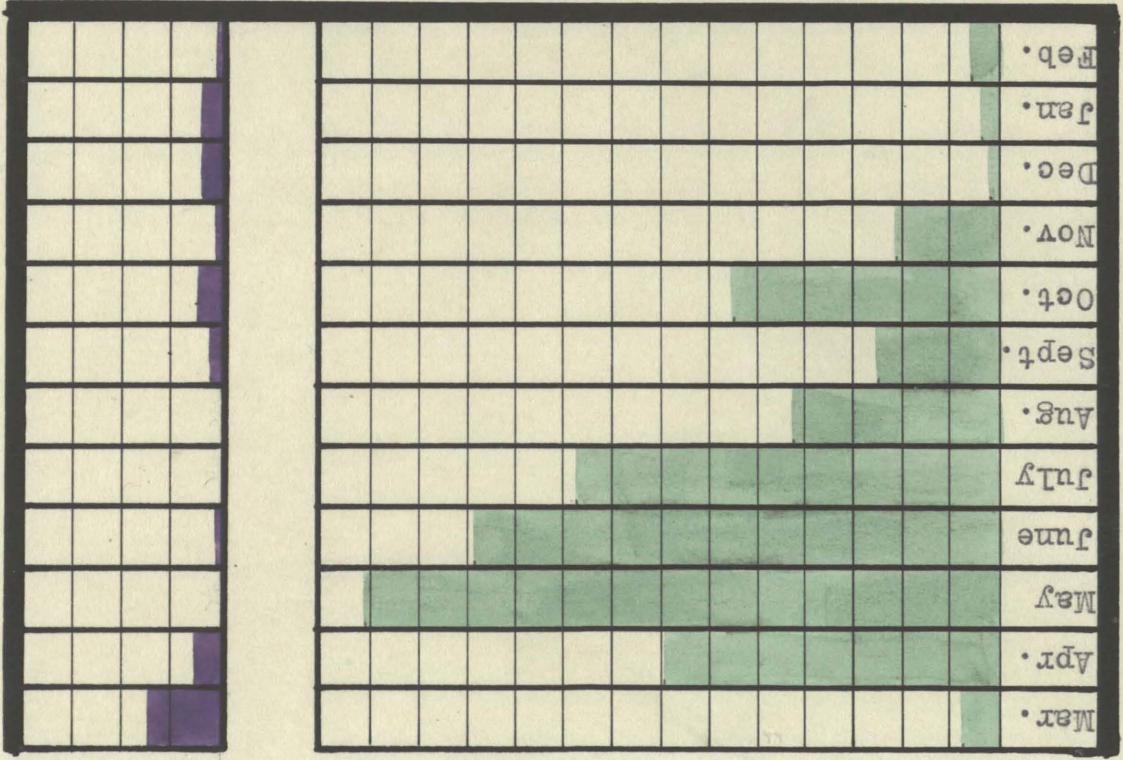


Man Hours
 Total Labor Farm No. 18



Horse Hours

Horse Hours
Field and Stock Labor Farm No. 18
Man Hours



Data Sheet For Farm No. 19- Stock Farm

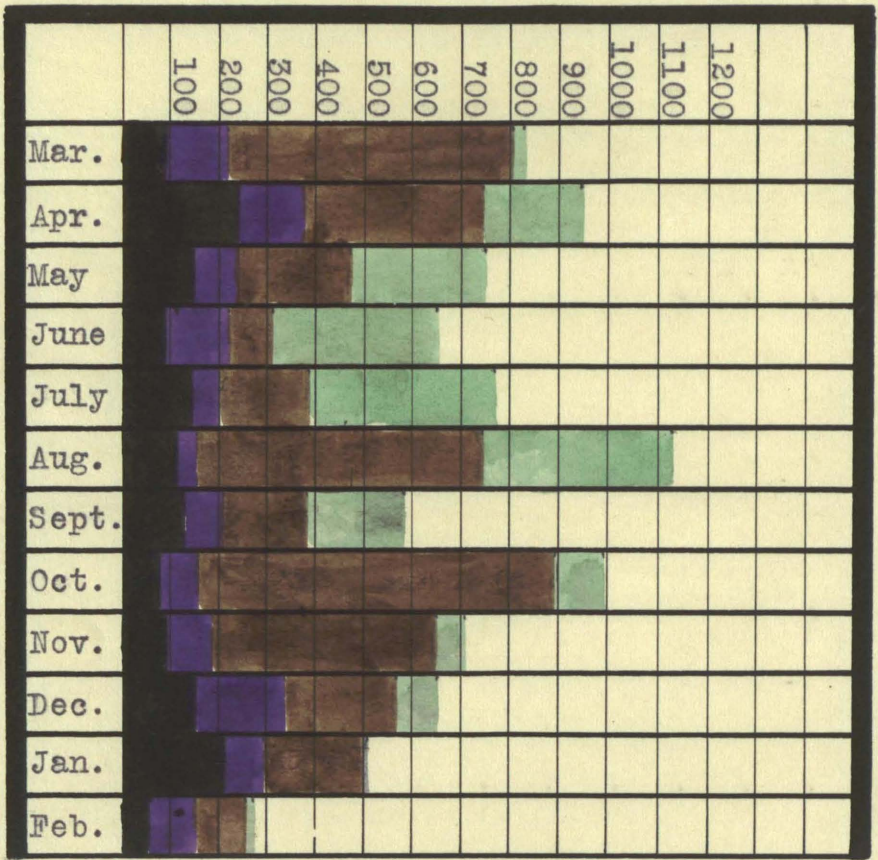
Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	94.5	28.	124.25	121.	808.75	779.	18.	36.	826.75	815.	12.
Apr.	244.5	96.	132.	49.5	737.5	525.5	210.5	597.	948.	1122.5	9.6
May	147.5	98.5	90.5	88.	471.5	481.5	269.	782.	746.5	1263.5	9.1
June	94.75	33.	125.5	73.5	314.5	170.	335.25	552.5	649.75	722.5	8.3
July	141.5	40.	59.	8.	387.5	152.	380.	560.	767.5	712.	8.4
Aug.	116.5	2.	37.5	1.	740.	276.	386.	454.	1126.	730.	8.5
Sept.	124.5	24.5	87.5	6.5	380.	108.	205.5	382.	585.5	490.	8.0
Oct.	81.5	32.5	79.5	17.5	892.	362.	98.	249.	990.	611.	9.2
Nov.	90.	21.	97.	6.	652.5	135.	53.5	94.	706.	229.	8.5
Dec.	156.	10.	175.5	12.	573.5	271.	85.	206.	658.5	477.	7.8
Jan.	214.5	67.	82.	2.	502.	273.	8.	16.	510.	289.	7.8
Feb.	67.	19.	90.	-----	265.	63.	13.	26.	278.	89.	5.7
Total	1572.75	471.5	1180.25	385.	6785.	3636.	2061.75	3954.5	8846.75	7590.5	8.6

Total number of acres : 480
 Acres in pasture : 320
 " of corn : 56
 " " oats : 16
 " " wheat : 0
 " " clover : 0
 " " other hay : 65
 " " cowpeas : 0
 " " soybeans : 0
 " " alfalfa : 5

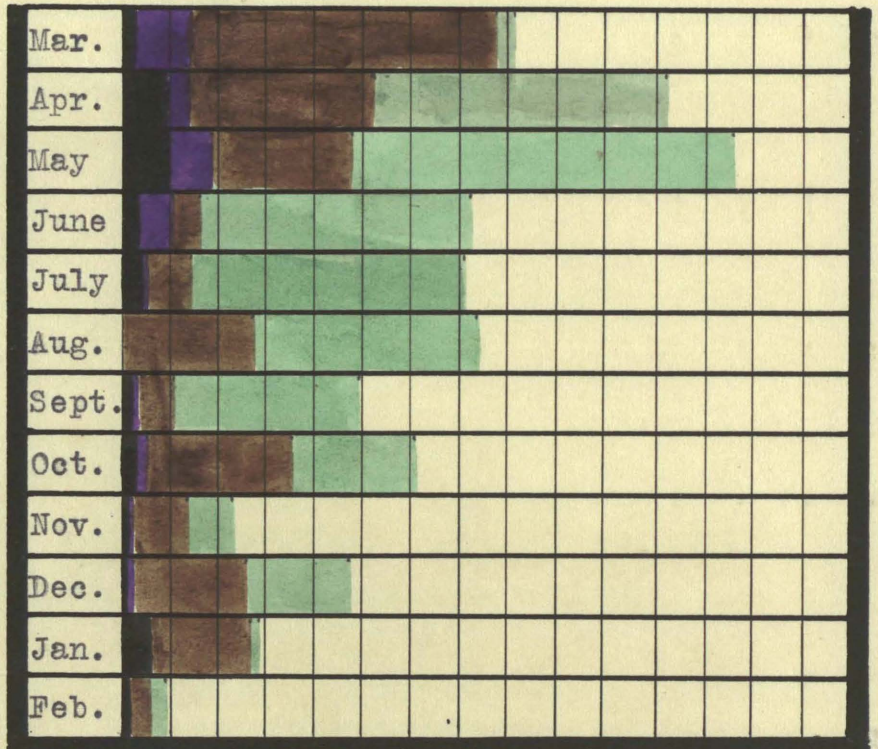
Class of Stock Ave. Number Animal Units
 Horses 16.25 12.08
 Cows 2.25 .78
 Other Cattle 52.83 16.90
 Brood Sows 18.83 4.41
 Other Hogs 56.75 14.01
 Sheep 0.
 Poultry 75.(Est.) .62
 Labor Income : -\$3729.
 Cost of Family Living : \$837.

Total A. U. 48.8 68

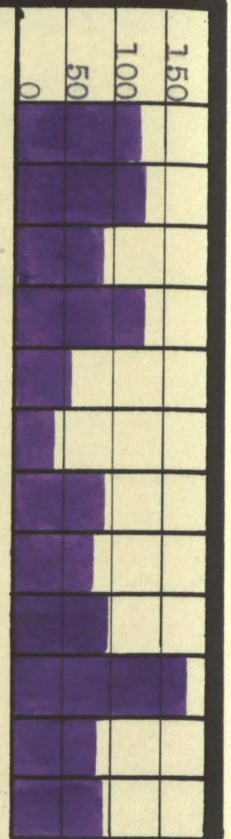
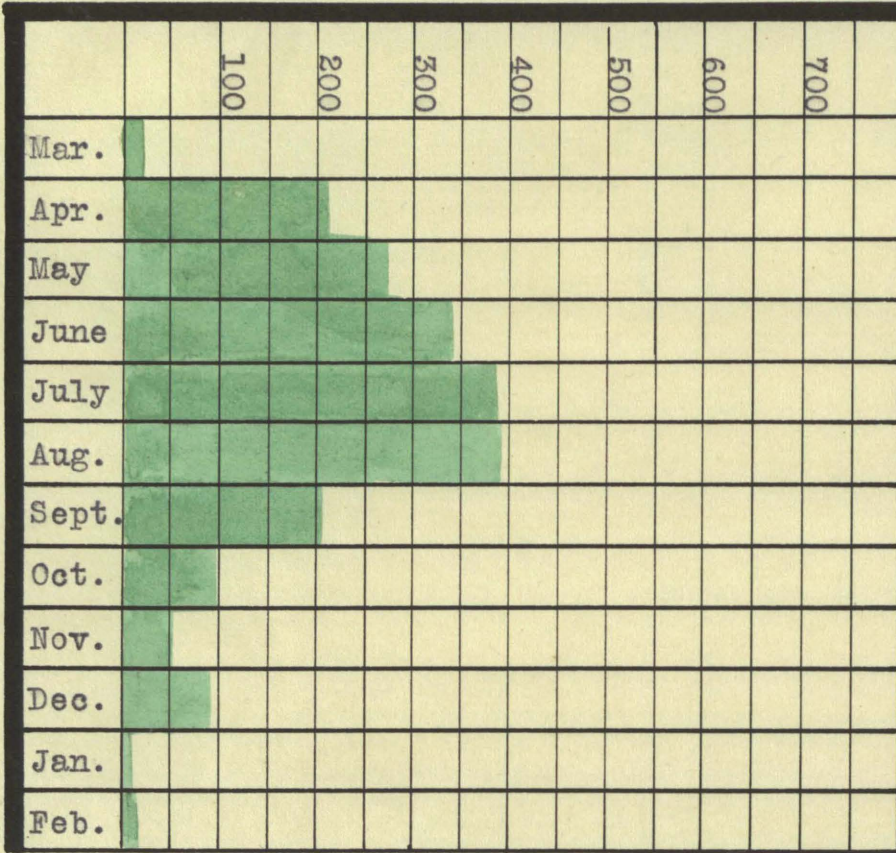
Man Hours
Total Labor Farm No. 19



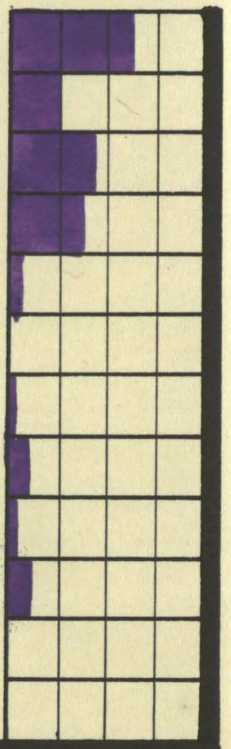
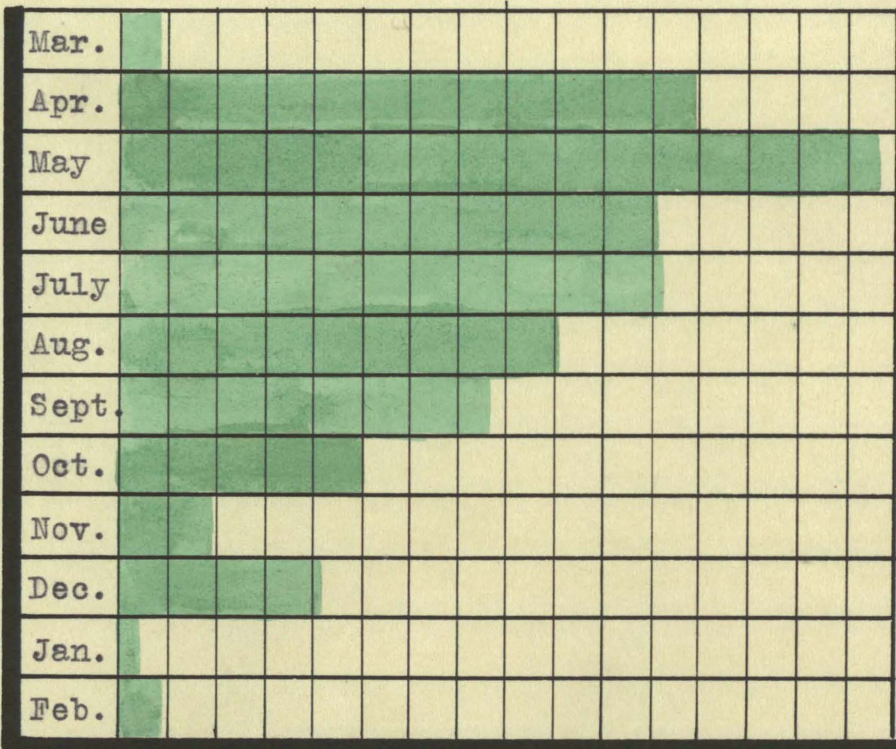
Horse Hours



Men Hours
Field and Stock Labor Farm No. 19



Horse Hours



Data Sheet For Farm No.20 - Stock Farm

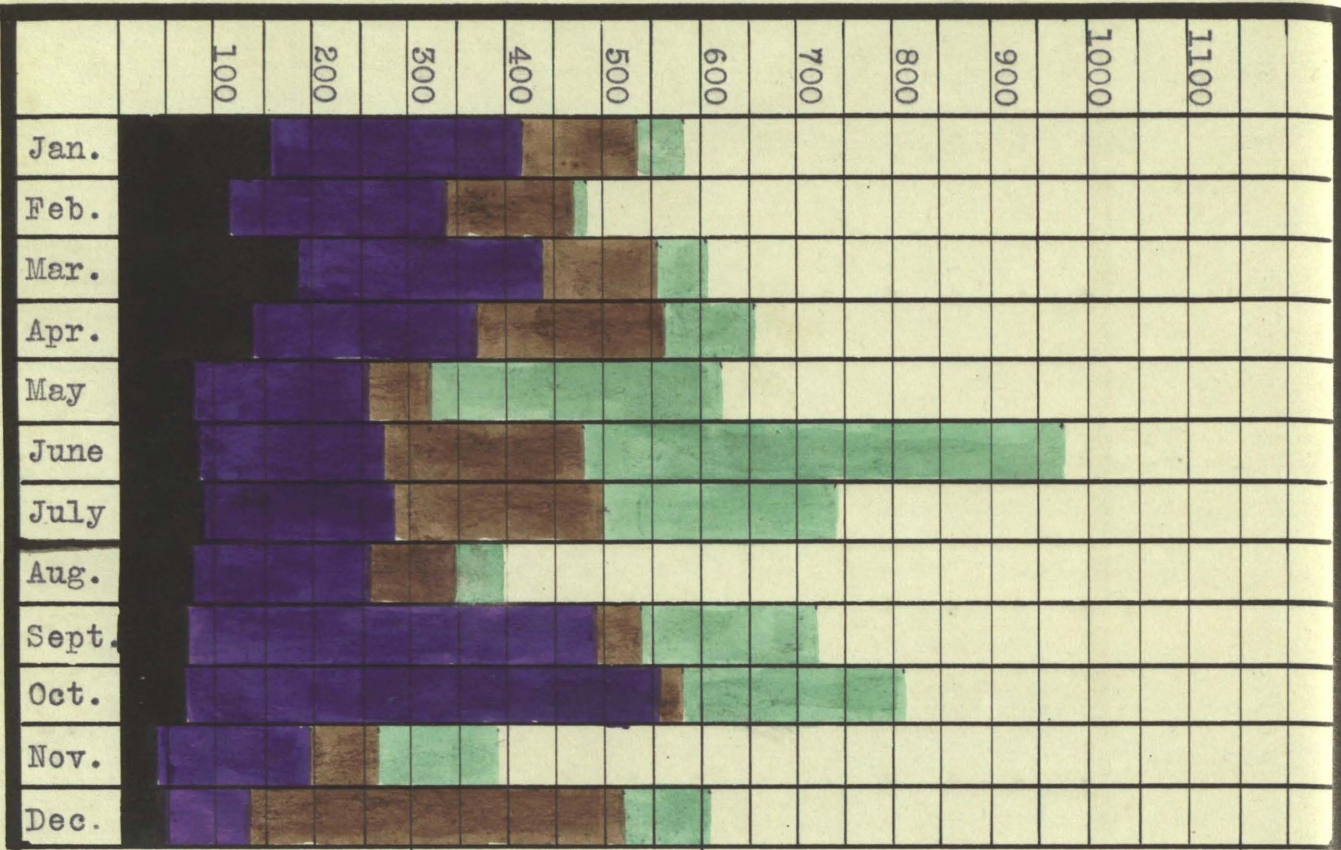
Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan	158.	31.5	257.75	145.5	533.25	280.	52.	83.	585.25	363.	9.4
Feb.	117.	32.	220.5	59.	471.	180.	9.	18.	480.	198.	9.6
Mar.	189.75	33.	247.5	60.	555.75	183.	47.	69.	602.75	252.	9.7
Apr.	136.	115.5	231.25.	94.	566.25	413.75	89.	209.	655.25	622.75	10.8
May	78.5	64.	177.5	85.	320.5	201.5	302.25	855.	622.75	1056.5	10.0
June	85.	69.5	192.	91.5	480.75	305.5	495.	605.	975.75	910.5	10.7
July	90.	100.5	195.	83.	499.25	400.	240.5	326.5	739.75	726.5	10.0
Aug.	78.25	121.5	182.25	86.	348.	313.5	49.	-----	397.	313.5	10.4
Sept.	71.	92.	420.	187.5	537.	346.	185.	153.	721.	499.	10.6
Oct.	67.	90.	492.5	275.	581.	368.	228.5	159.	809.5	527.	10.2
Nov.	37.	76.	158.	88.	269.5	261.	120.	73.	389.5	334.	8.4
Dec.	134.5	56.	255.5	118.5	520.5	400.5	88.	337.5	608.5	437.5	9.4
Total	1242.	881.5	3029.75	1373.	5682.75	3652.75	1905.25	2587.5	7588.	6240.25	10.0

Total number of acres : 140
 Acres in pasture : 31
 " of corn : 41
 " " oats : 0
 " " wheat : 19
 " " clover : 10
 " " other hay : 19
 " " cowpeas : 0
 " " soybeans : 19
 " " alfalfa : 0

Class of Stock
 Horses 8.56
 Cows 1.16
 Other Cattle 0.
 Brood Sows 17.25
 Other Hogs 42.4
 Sheep 0.
 Poultry 0.
 Labor Income : \$565.
 Cost of Family Living : \$814.

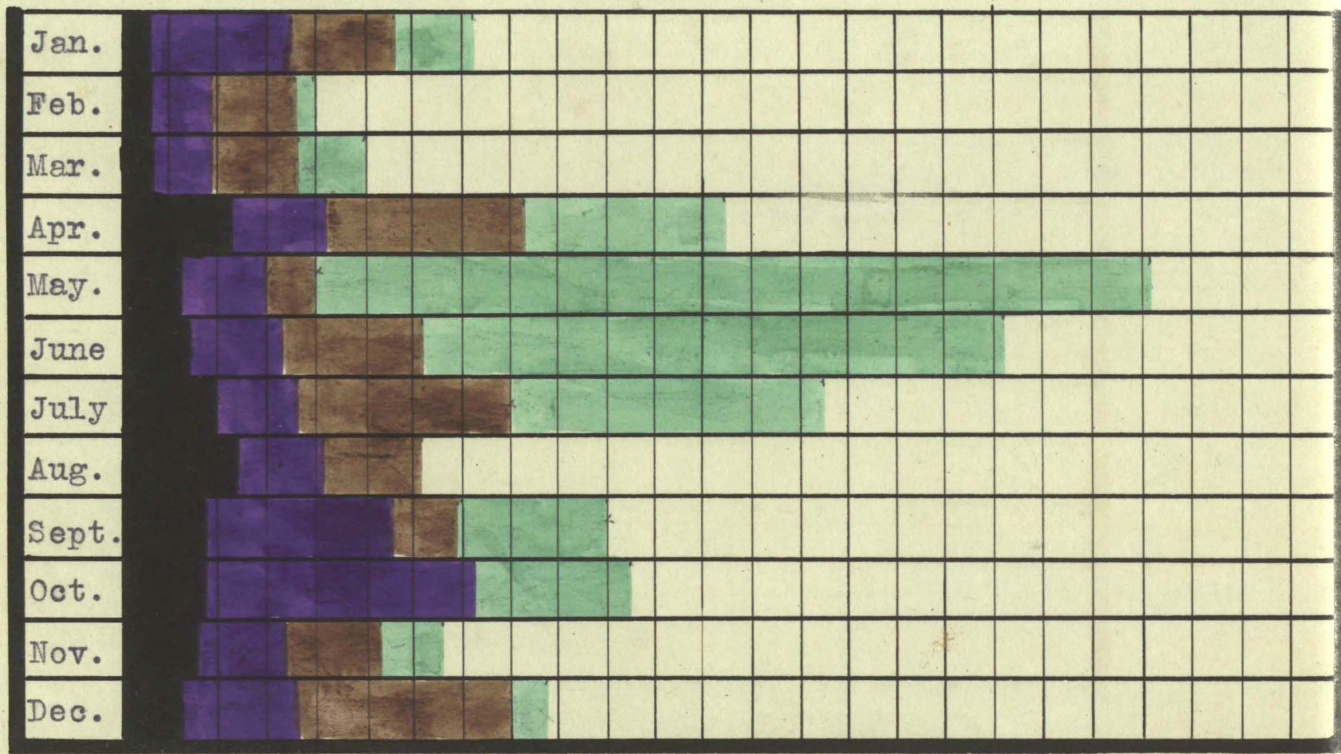
Animal Units
 6.45
 .63
 4.04
 15.49
 Total A. U. 26.61

Man Hours



Total Labor Farm No. 20

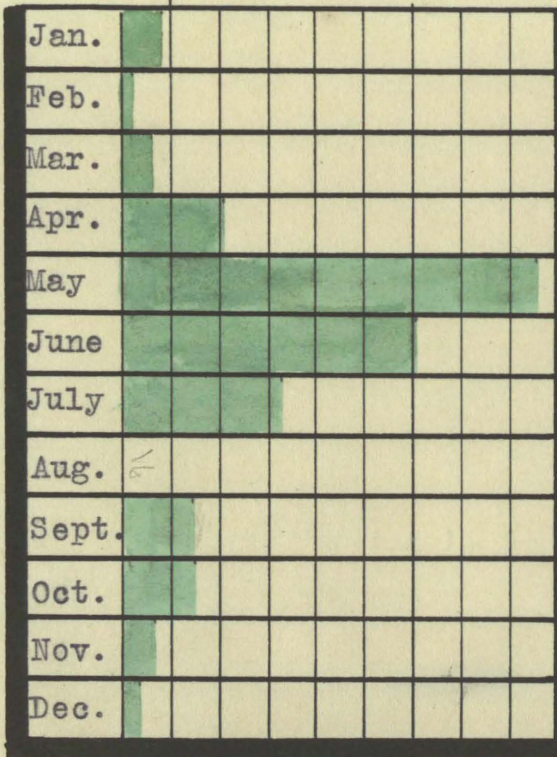
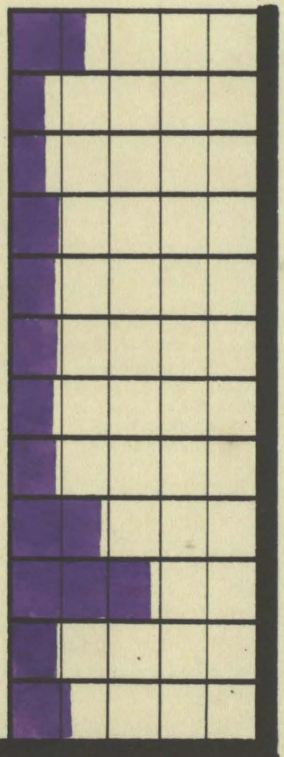
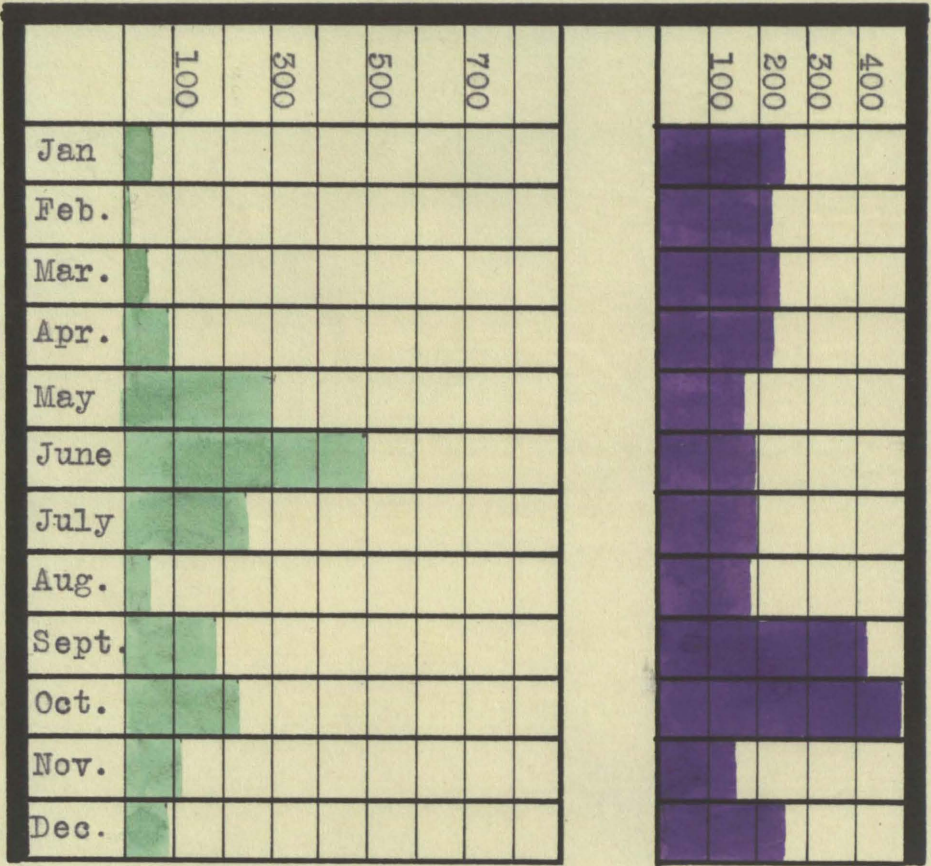
Horse Hours



Man Hours

Field and Stock Labor Farm No. 20

Horse Hours



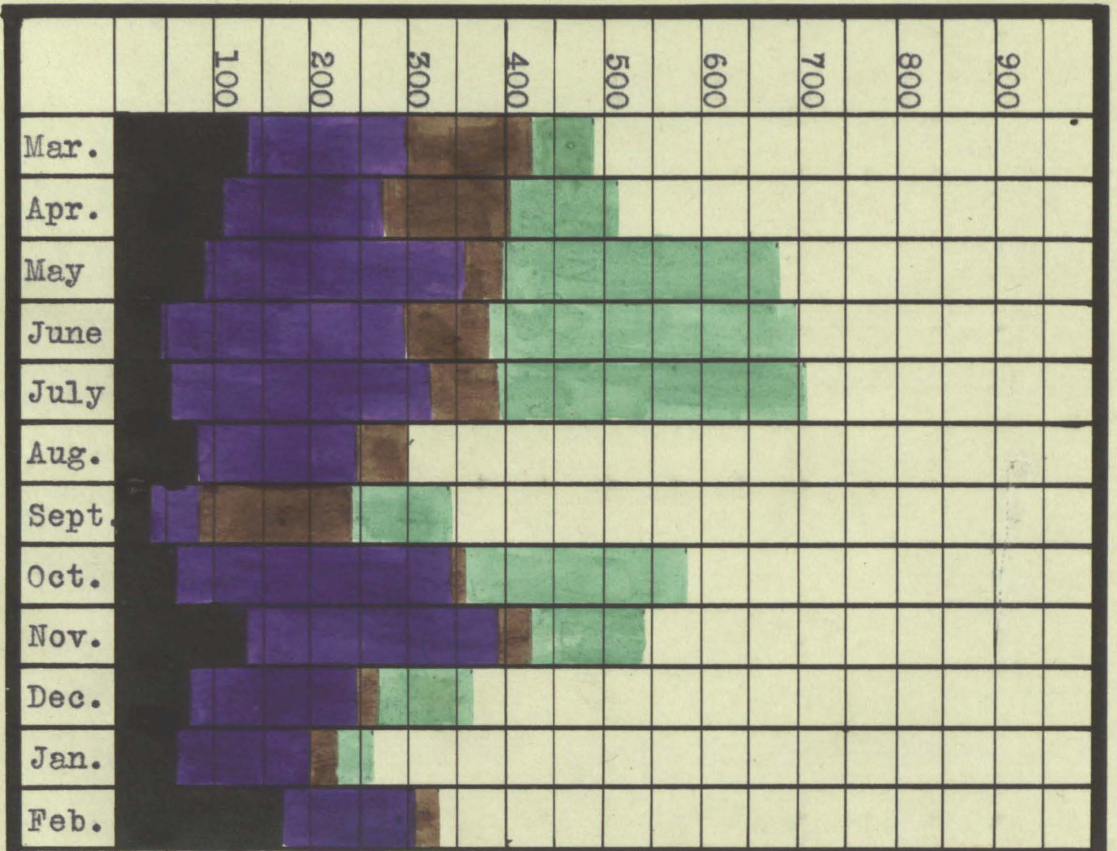
Data Sheet For Farm No. 21 - Stock Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	135.	81.5	158.75	22.5	428.75	188.	62.5	134.5	491.25	322.5	9.1
Apr.	108.	51.	163.5	13.25	402.75	138.5	121.75	386.5	514.5	525.	10.1
May	88.75	47.25	268.25	30.25	397.75	99.5	285.	822.	682.75	921.5	11.7
June	47.	19.5	248.	10.5	382.	117.5	316.	627.	698.	744.5	10.4
July	52.25	14.	266.	8.	489.25	166.	216.5	417.	705.75	583.	10.0
Aug.	71.5	75.	165.	9.5	254.5	115.	45.5	172.	300.	287.	9.4
Sept.	35.5	11.25	168.5	26.	239.75	60.25	100.5	249.	340.25	309.25	11.0
Oct.	60.25	47.25	285.75	106.5	354.25	161.75	230.	529.	584.25	690.75	8.7
Nov.	135.5	107.5	259.	38.	428.5	189.5	117.5	207.	546.	396.5	10.9
Dec.	75.5	83.5	169.5	38.	268.25	128.	99.5	165.	367.75	293.	7.7
Jan.	63.5	37.5	134.75	37.	225.75	173.5	41.	82.	266.75	255.5	7.1
Feb.	173.	64.	133.25	33.	331.75	176.75	-----	-----	331.75	176.75	8.2
Total	1045.75	639.25	2420.25	372.5	4203.25	1714.75	1635.75	3791.	5839.	5505.75	9.5

Total number of acres : 141
 Acres in pasture : 61
 " of corn : 63
 " " oats : 11
 " " wheat : 0
 " " clover : 4
 " " other hay : 0
 " " cowpeas : 4
 " " soybeans : 0
 " " alfalfa : 0

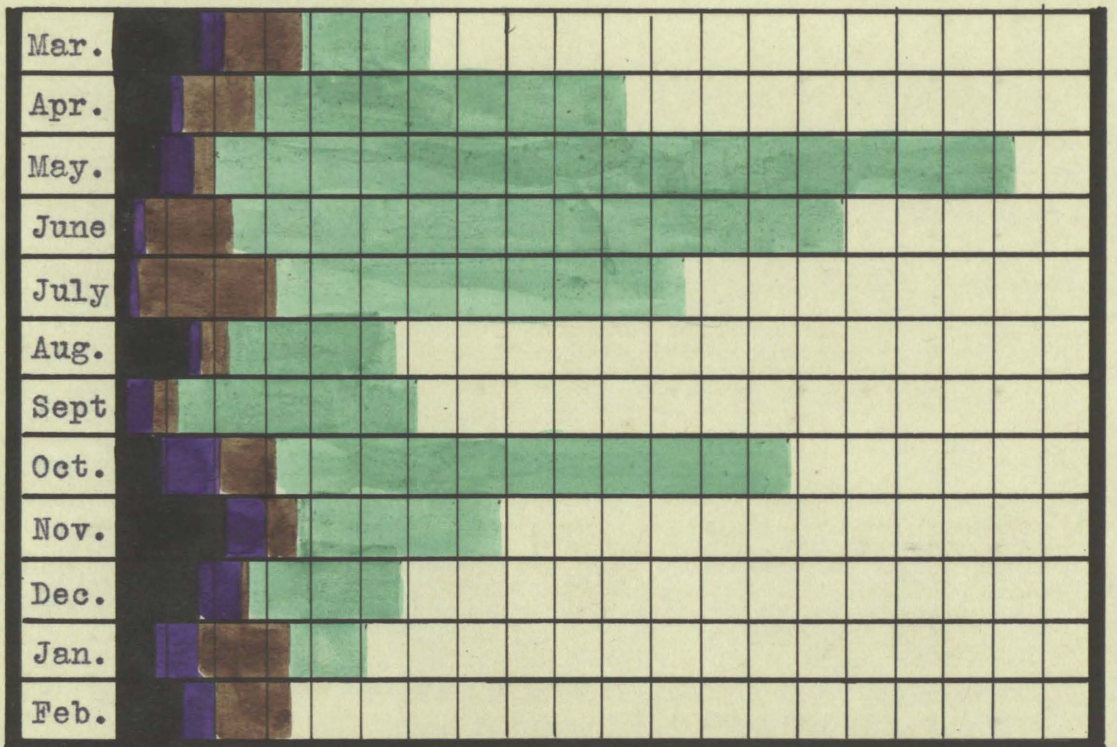
Class Of Stock
 Horses 5.
 Cows 1.83
 Other Cattle 3.16
 Brood Sows 4.33
 Other Hogs 57.6
 Sheep 0
 Poultry 378.
 Labor Income : -\$102.
 Cost of Family Living : \$662.

Ave. Number
 Animal Units
 5.
 .63
 .78
 1.
 14.2
 3.1
 Total A. U. 24.71



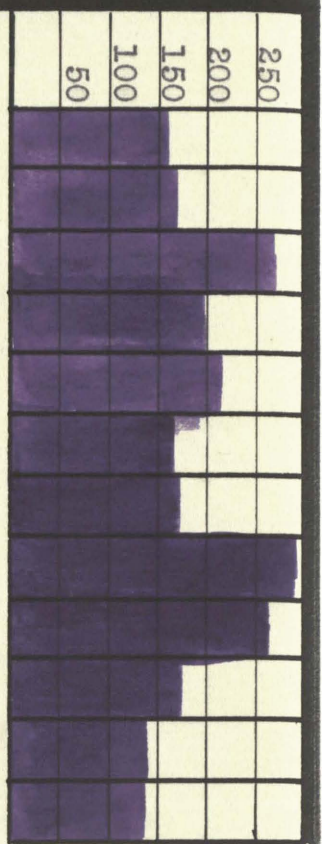
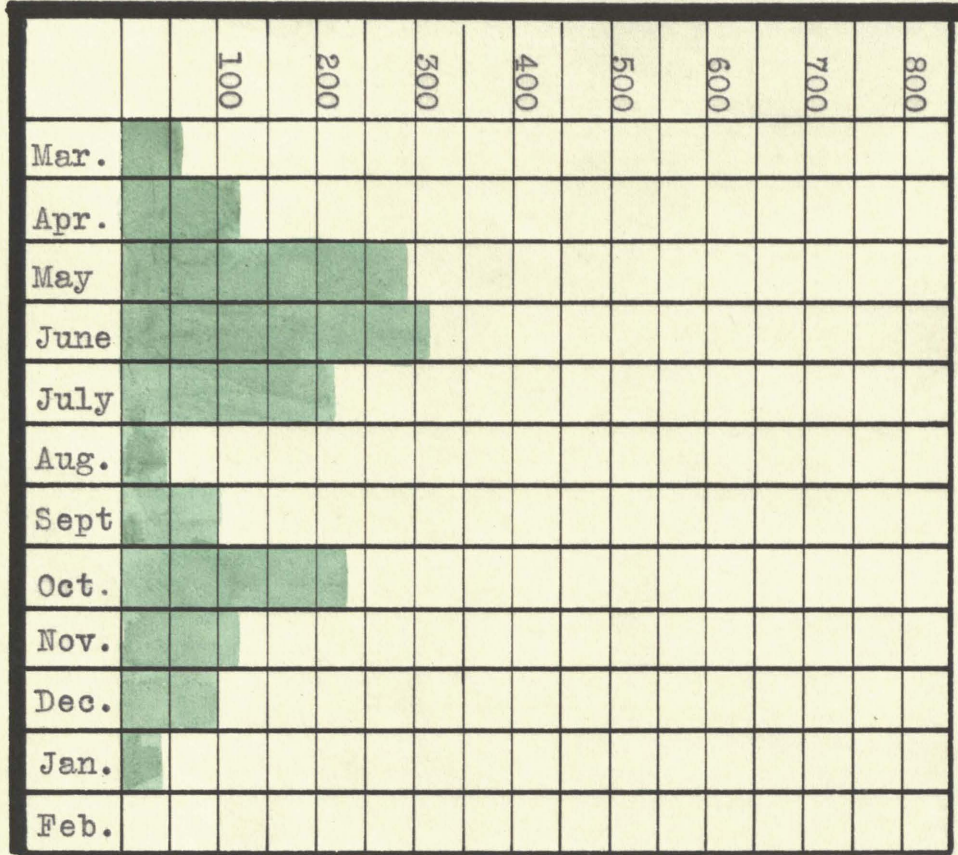
Man Hours

Total Labor Farm No. 21

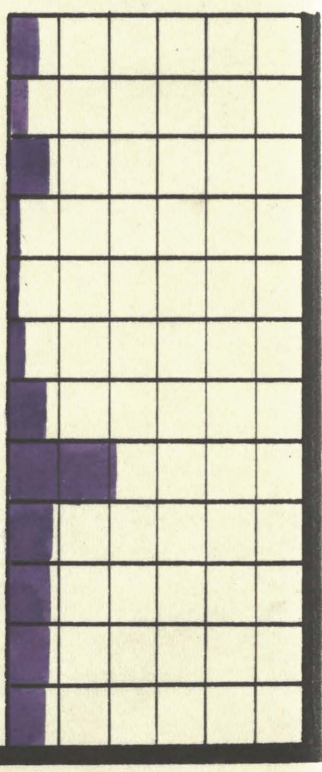
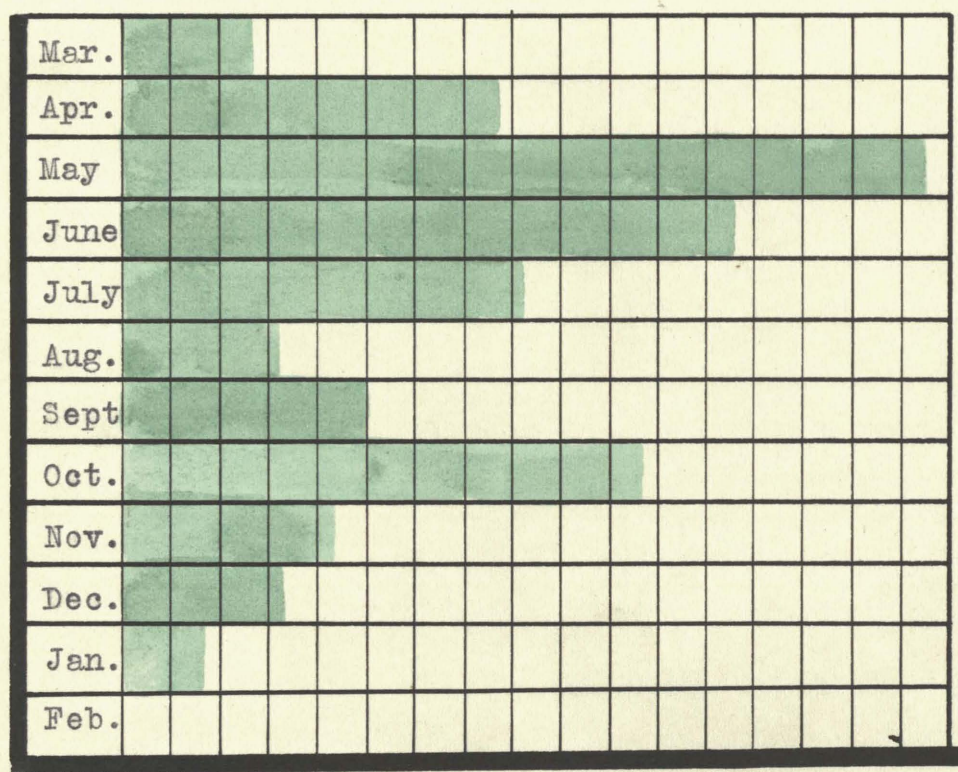


Horse Hours

Man Hours
Field and Stock Labor Farm No. 21



Horse Hours



Data Sheet For Farm No. 22 - Stock Farm

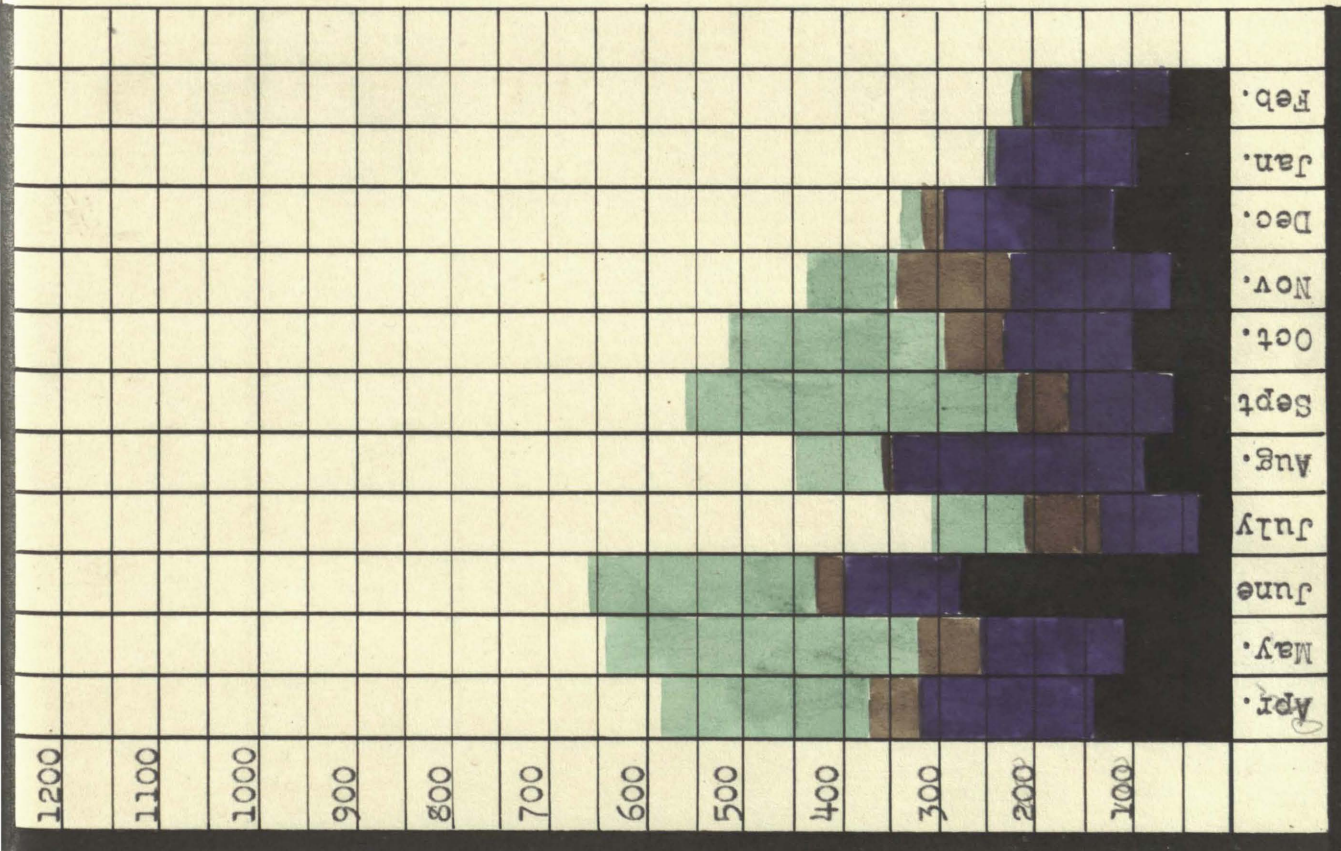
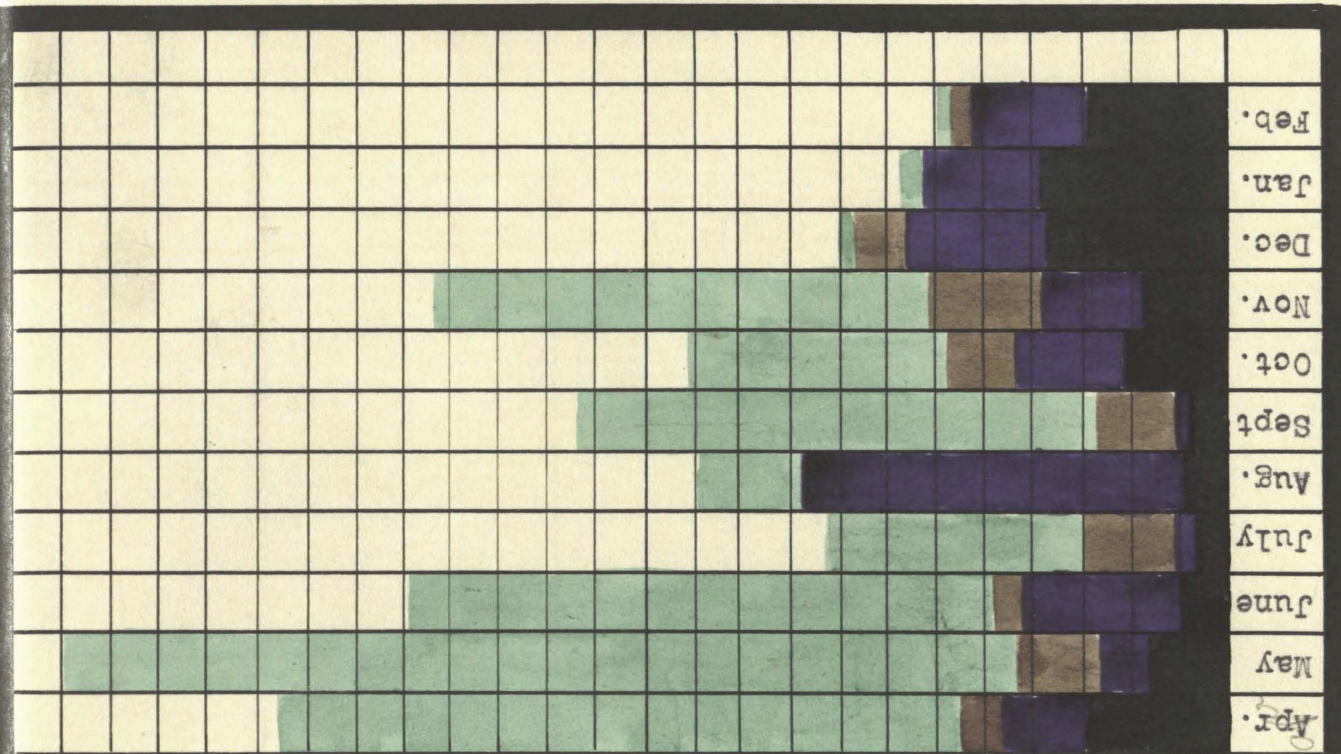
Month	Maintenance		Stock		Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Apr.	140.	143.	177.5	84.	374.5	272.	208.	704.	582.5	976.	10.4
May	114.	80.5	138.	47.75	325.	212.25	310.5	984.5	635.5	1196.25	10.9
June	277.5	208.5	123.5	25.	427.	261.5	227.	581.	654.	842.5	10.5
July	34.75	33.	96.5	22.	204.75	150.	102.	267.	306.75	417.	7.9
Aug.	83.	45.	264.5	390.	351.5	439.	97.	108.	448.5	547.	12.0
Sept.	59.	34.5	106.5	15.5	213.5	130.	350.	537.	563.5	667.	10.4
Oct.	100.	110.	131.25	110.75	289.25	286.25	218.	277.	507.25	563.25	10.1
Nov.	72.	86.	149.5	98.	336.5	305.	94.	518.	430.5	823.	9.7
Dec.	117.	180.	168.	151.	310.	371.	15.	28.	325.	399.	9.1
Jan.	94.	184.	140.	125.	238.	317.	8.	16.	246.	333.	7.9
Feb.	67.	146.	131.	120.	209.	291.	3.	4.	212.	295.	7.8
Total	1158.25	1250.5	1626.25	1189.	3279.	3035.	1632.5	4024.5	4911.5	7059.5	9.9

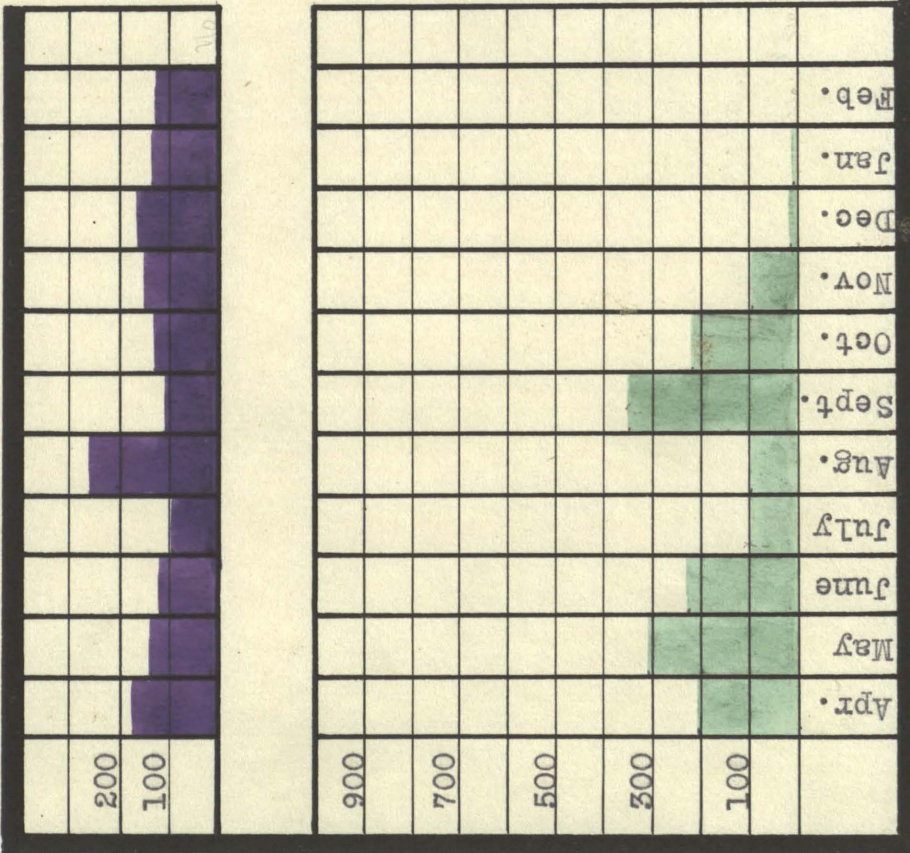
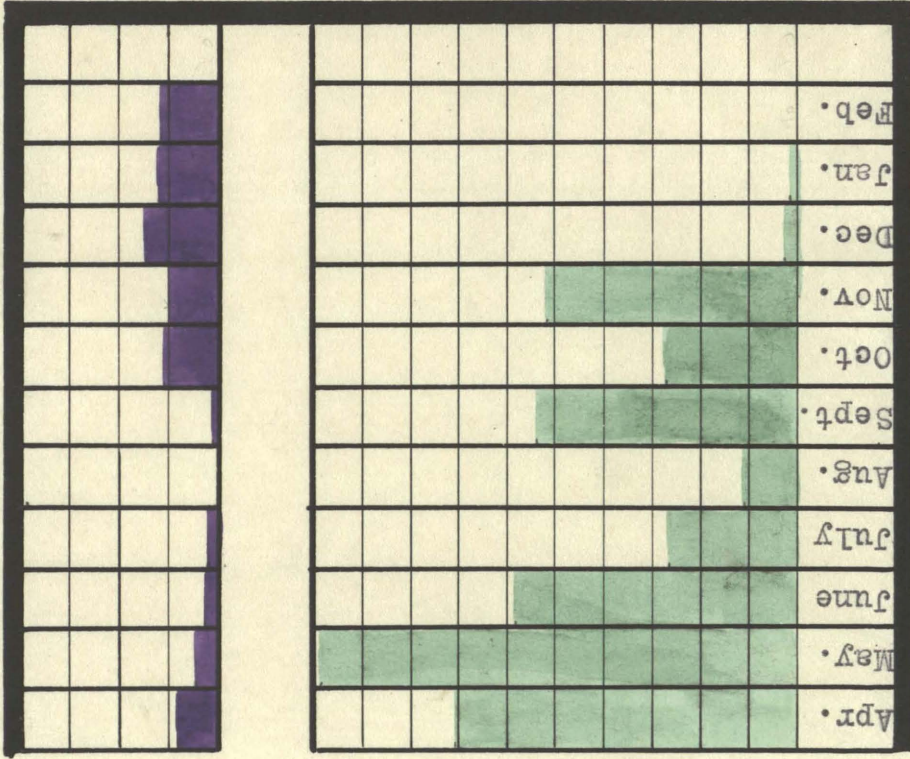
Total number of acres :	320	Class of stock	Ave Number	Animal Units
Acres in pasture :	216	Horses	9.5	7.51
" of corn :	98	Cows	3.	1.04
" of oats :	0	Other Cattle	27.	7.53
" wheat :	0	Brood Sows	10.5	2.46
" clover :	0	Other Hogs	34.66	8.56
" other hay :	0	Sheep	48.25	2.12
" cowpeas :	0	Poultry	204.	1.67
" soybeans :	0	Labor Income :	\$1574.	Total A. U. 30.89
" alfalfa :	0	Cost of Family Living:	699.	

Horse Hours

Total Labor Farm No. 22

Man Hours





Man Hours
 Field and Stock Labor Farm No. 22
 Horse Hours

Data Sheet For Farm No. 23 - Stock Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	148.5	108.	190.75	141.	499.75	389.	13.	16.	512.75	405.	8.5
Feb.	162.5	36.	111.5	16.	373.5	173.	1.	2.	374.5	175.	6.8
Mar.	231.5	66.	90.75	27.75	420.75	195.75	71.5	177.	492.25	372.75	7.7
Apr.	172.75	52.	139.	31.	427.25	183.	244.	742.	671.25	925.	9.9
May	187.5	89.	170.5	6.5	492.5	172.5	303.	736.	795.5	908.5	10.5
June	133.	43.	181.5	2.	358.5	65.	552.5	856.	911.	921.	11.5
July	112.5	22.	174.5	7.	883.	605.	461.	299.	1344.	904.	10.5
Aug.	157.	112.5	162.5	42.	404.5	273.5	81.	240.	485.5	513.5	8.8
Sept.	122.	46.	129.5	4.	292.5	100.	266.5	691.	559.	791.	8.7
Oct.	128.5	72.	166.	55.	554.	491.	83.5	230.	637.5	721.	10.0
Nov.	84.5	40.	101.	6.	213.	96.	338.	676.	551.	772.	10.0
Dec.	176.5	90.	151.5	34.	344.5	146.	-----	-----	344.5	146.5	9.4
Total	1817.	776.5	1769.	372.25	4864.75	2491.75	2814.	5057.	7678.	7554.75	9.5

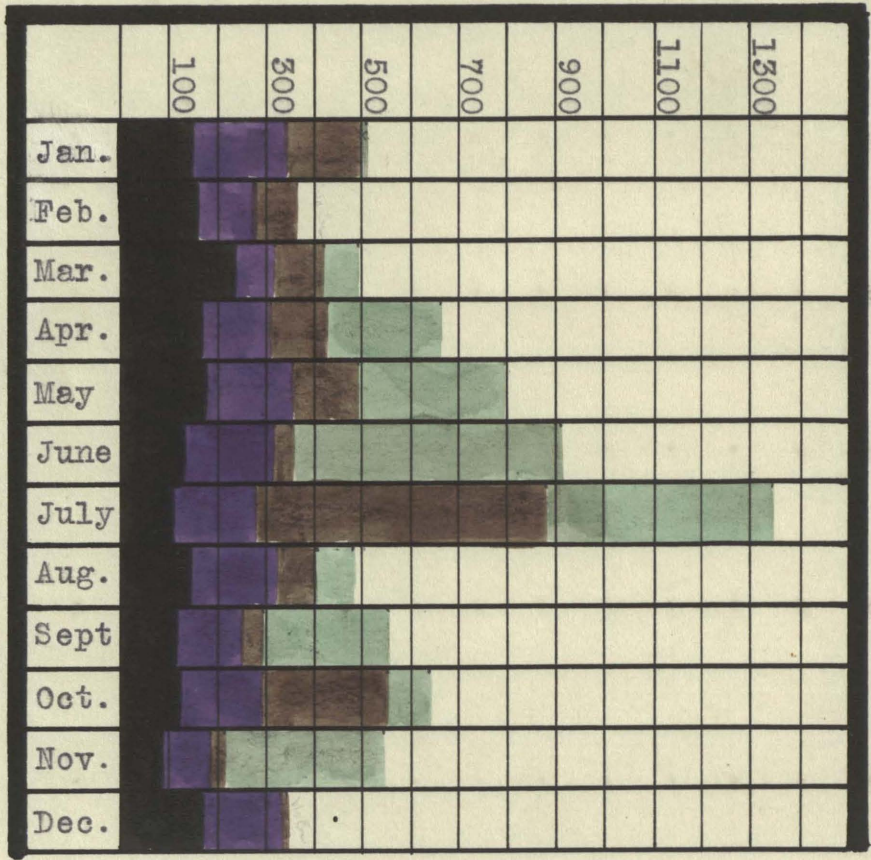
Total number of acres : 295
 Acres in pasture : 132.5
 " of corn : 77.5
 " " oats : 17.
 " " wheat : 48.
 " " clover : 13
 " " other hay : 5
 " " cowpeas : 0
 " " soybeans : 0
 " " alfalfa : 2

Class of Stock
 Horses 18.25
 Cows 4.4
 Other Cattle 20.3
 Brood Sows 9.
 Other Hogs 25.5
 Sheep 0.
 Poultry 173.
 Labor Income \$1360.
 Cost of Family Living : 1210.

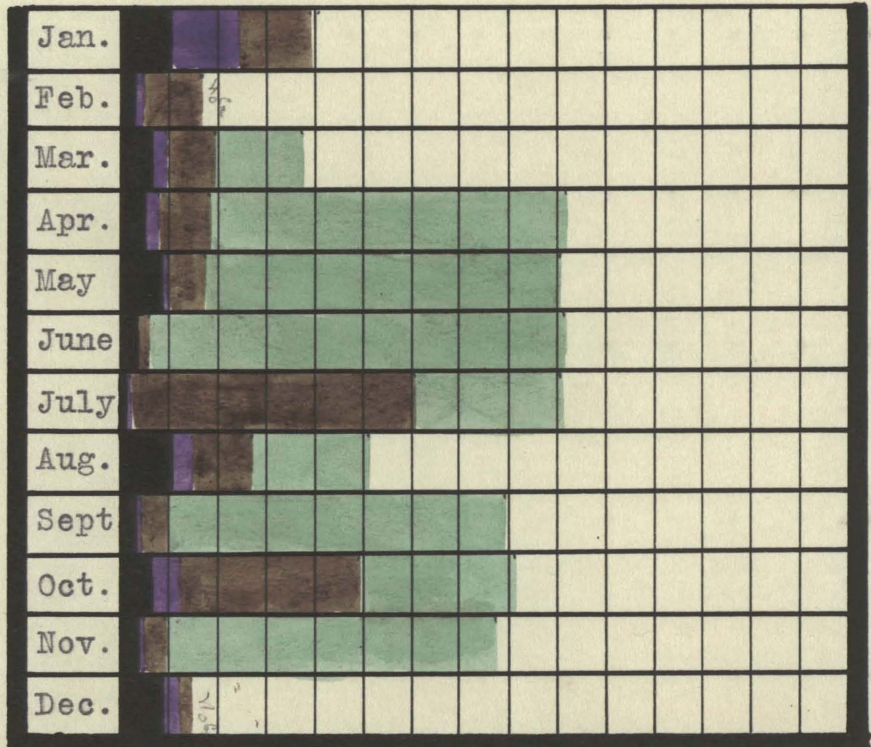
Animal Units
 10.09
 1.52
 5.56
 2.1
 6.3
 1.42
 Total A. U. 26.99

Men Hours

Total Labor Farm No. 23

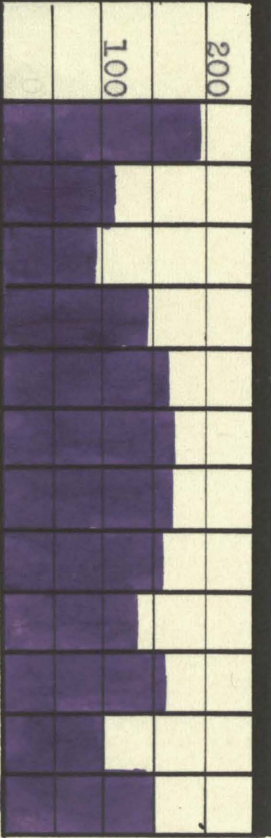
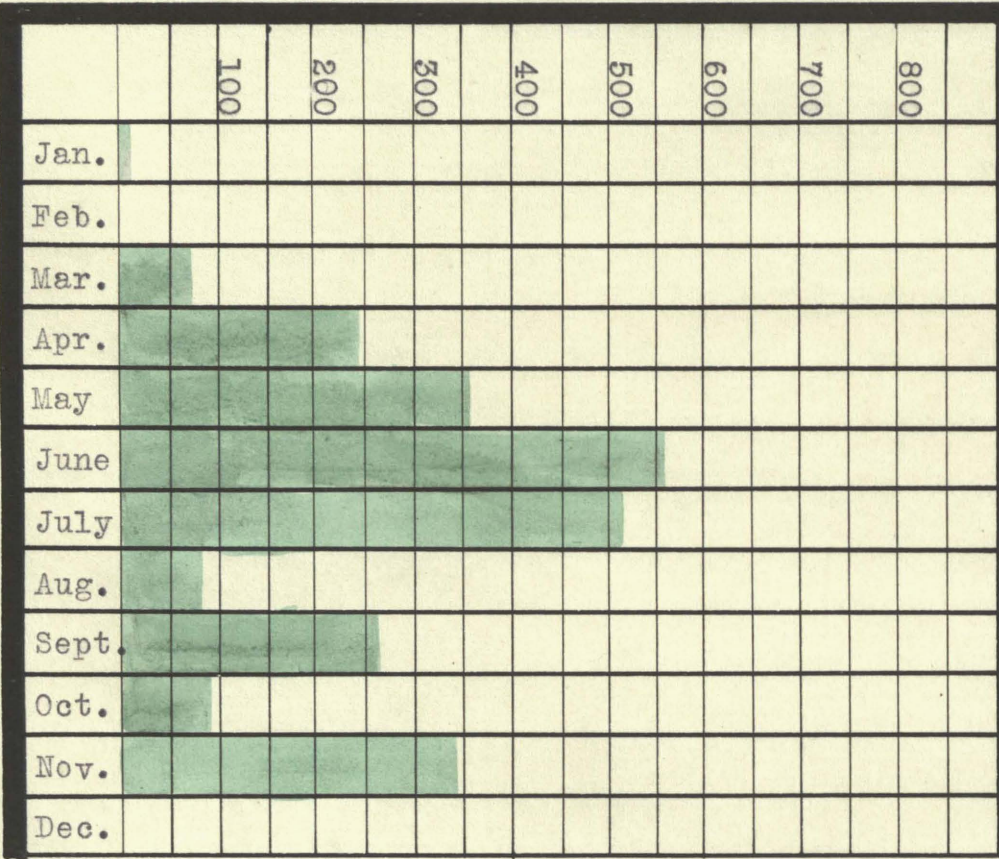


Horse Hours

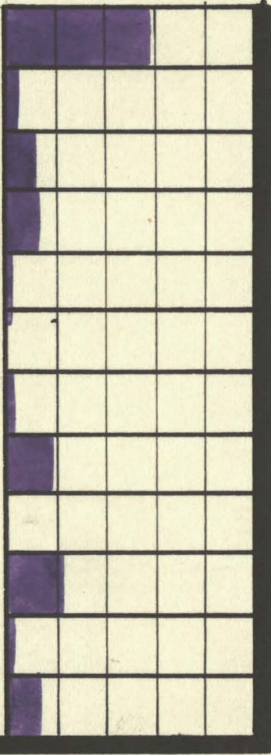
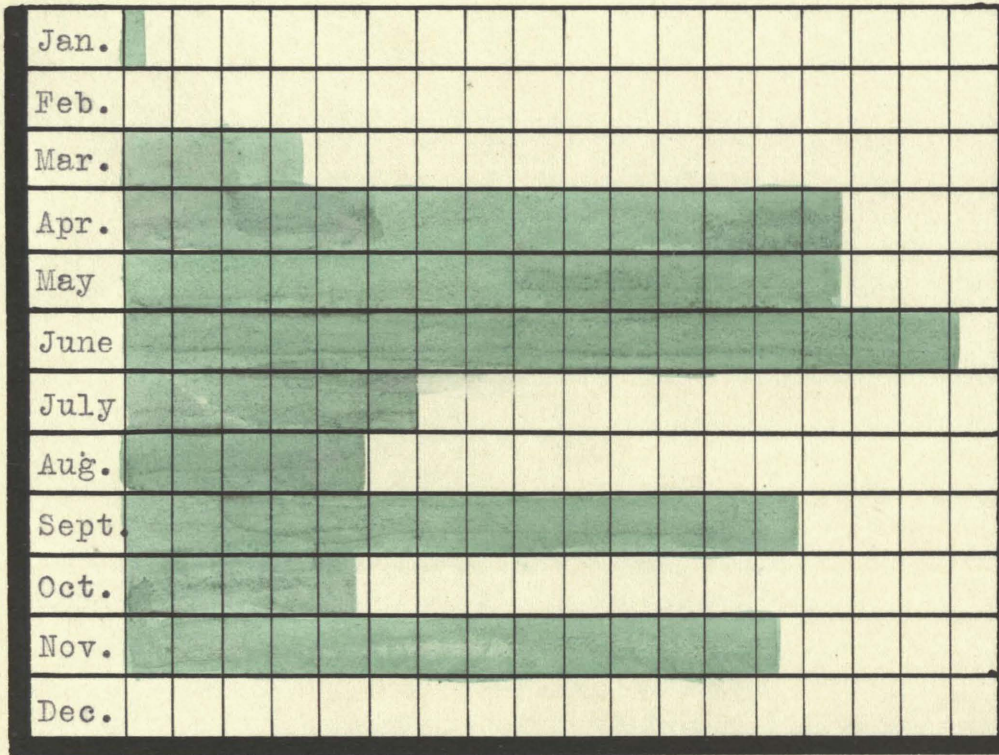


Man Hours

Field and Stock Labor Farm No. 25



Horse Hours



Data Sheet For Farm No. 24 - Stock Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Jan.	111.25	60.	65.	22.	274.25	121.5.	103.5	189.	377.75	310.5	
Feb.	60.5	15.	60.	4.	491.5	116.	44.	108.	535.5	224.	
Mar.	30.5	11.	79.5	20.	404.	64.	60.	106.	464.	170.	
Apr.	80.5	38.	54.	3.	477.	322.	116.	452.	593.	774.	
May	74.5	18.	87.5	16.	299.	192.	239.	808.	538.	1000.	
June	75.	36.	58.5	-----	267.5	154.	442.	546.	709.5	700.	
July	74.5	12.	47.75	-----	548.25	160.	358.	343.	906.25	503.	
Aug.	83.	30.	68.25	11.5	173.25	44.5	55.	178.	228.25	222.5	
Sept.	95.5	26.	92.	2.	575.5	89.	143.	118.	718.5	207.	
Oct.	25.5	12.	56.75	-----	658.25	282.	144.5	532.	402.75	814.	
Nov.	112.	88.	30.	-----	295.	387.	206.	710.	501.	1097.	
Dec.	97.5	14.	48.	20.	243.5	88.	112.	223.	355.5	311.	
Total	920.25	360.	747.25	98.5	4707.	2020.	2023.	4313.	6730.	6333.	

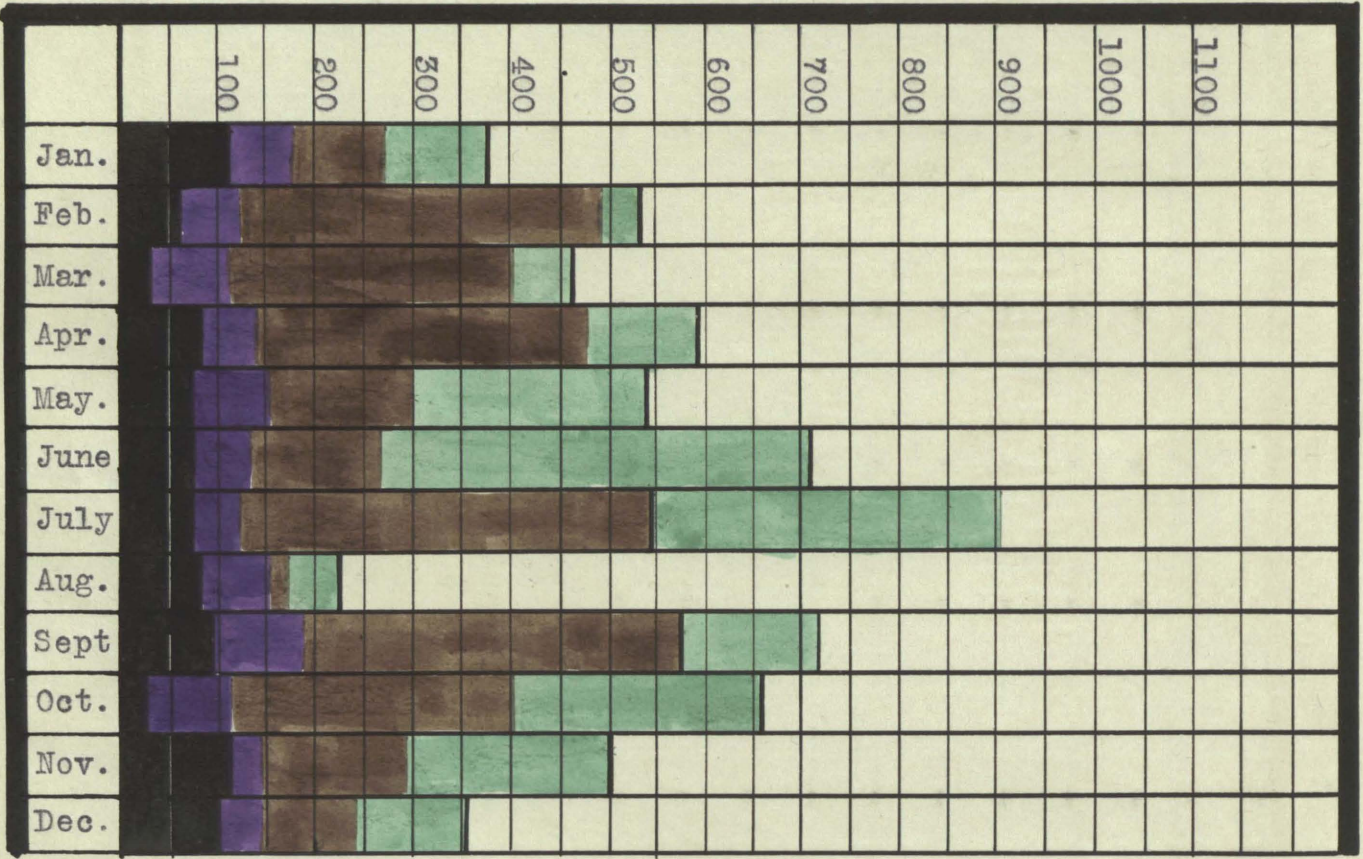
Total number of acres : 503
 Acres in pasture : 224
 " of corn : 95
 " " oats : 20
 " " wheat : 50
 " " clover : 0
 " " other hay : 47
 " " cowpeas : 0
 " " soybeans : 0
 " " alfalfa : 0

Class of Stock
 Horses
 Cows
 Other Cattle
 Brood Sows
 Other Hogs
 Pigs
 Poultry
 Labor Income :
 Cost of Family Living : 1965.

Ave. Number
 8.1
 5.66
 15.91
 17.
 74.
 50.
 95.
 \$1666.

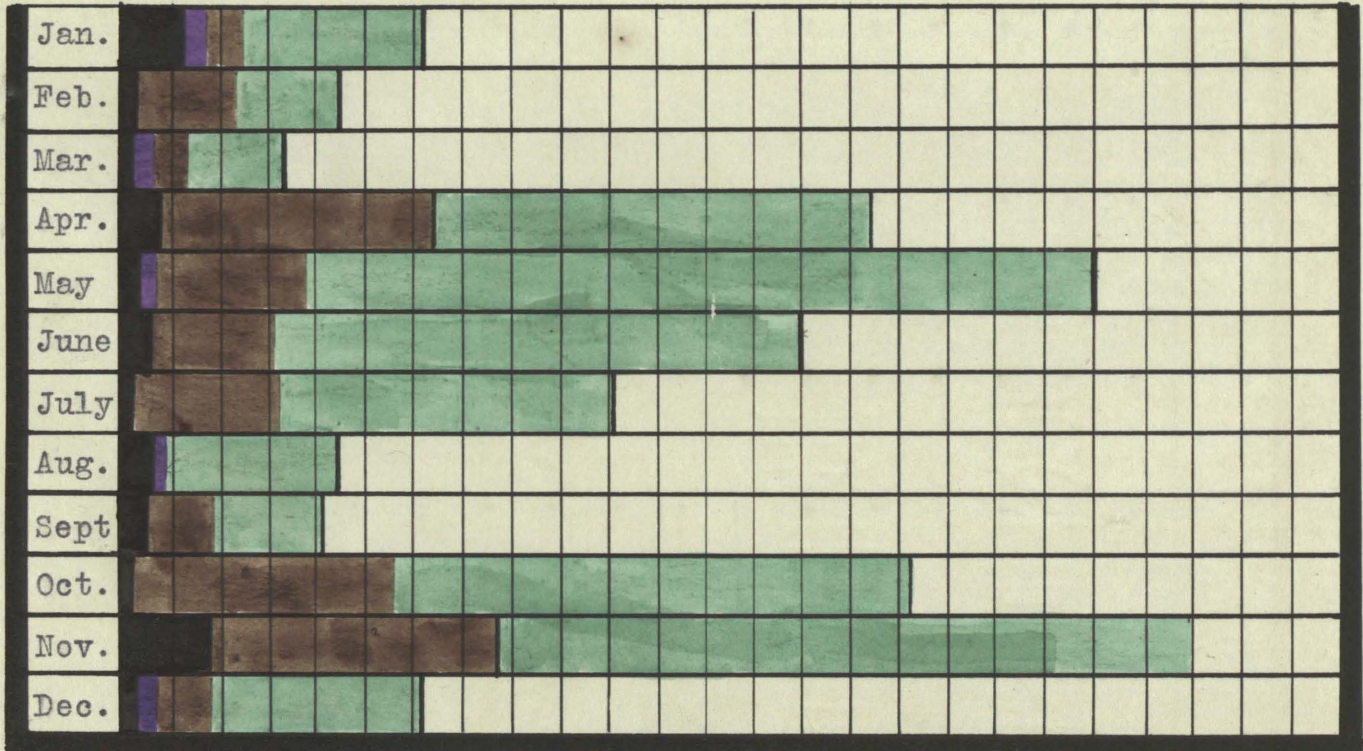
Animal Units
 8.1
 1.96
 4.36
 3.98
 21.61
 3.43
 .78
 Total A. U. 44.22

Men Hours

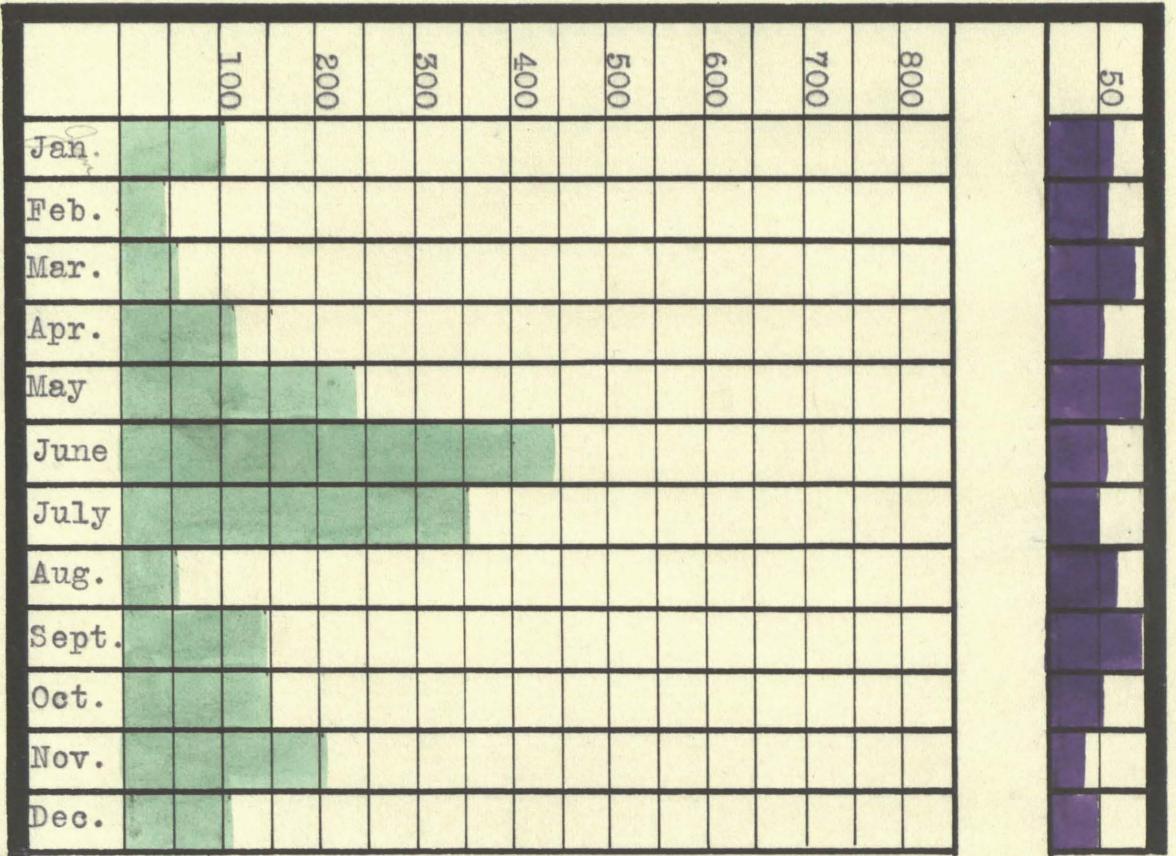


Total Labor Farm No. 24

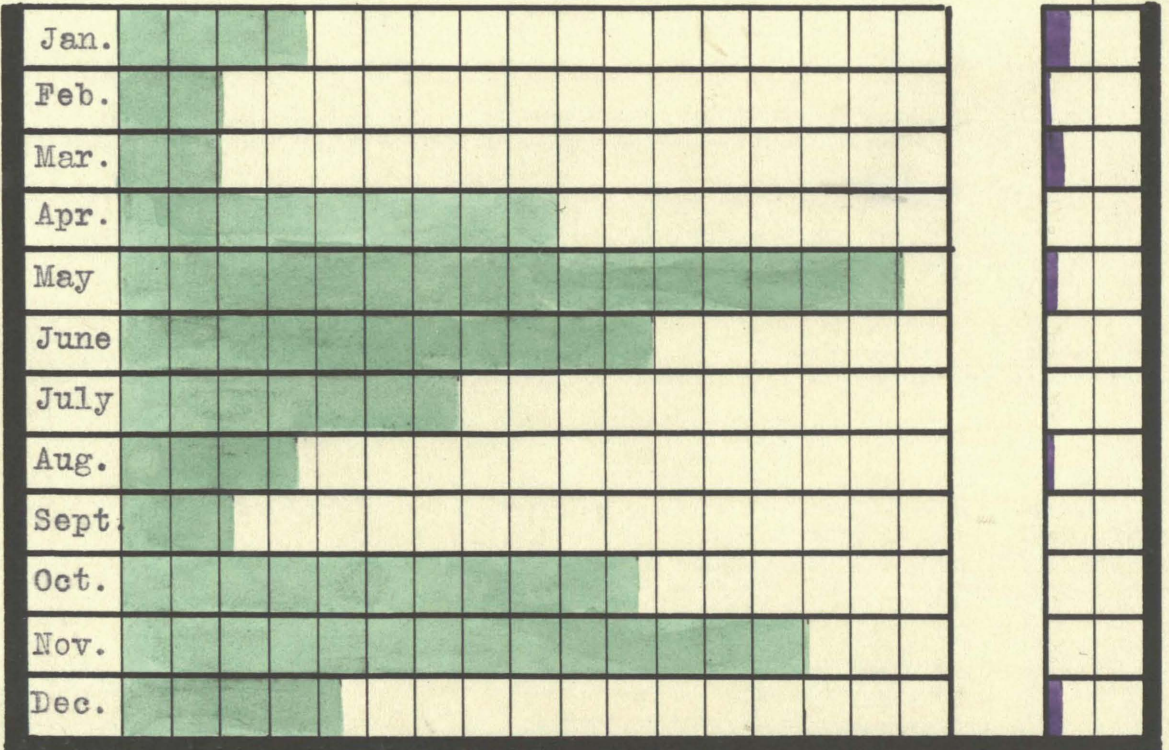
Horse Hours



Men Hours
Field and Stock Labor Farm No. 24



Horse Hours



Data Sheet For Farm No. 25 - Stock Farm.

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Feb.	42.25	29.5	104.5	70.5	223.75	122.	-----	-----	223.75	122.	8.4
Mar.	91.25	119.	110.	27.5	338.75	215.25	108.5	298.5	448.25	513.75	9.6
Apr.	89.5	97.	72.	13.5	593.25	293.25	30.	72.	623.25	365.25	9.4
May	129.75	65.75	79.	-----	299.25	139.25	200.	586.	499.25	725.25	9.4
June	67.25	5.25	105.	1.	223.75	32.25	394.5	892.	617.25	924.25	11.1
July	74.	8	73.5	-----	445.5	258.	258.25	368.25	703.75	626.25	10.8
Aug.	31.5	6	144	14.	1173.75	301.	22.	-----	1195.75	301.	10.8
Sept.	73.	24.	90.25	9.	241.	79.	197.5	413.5	438.5	492.5	10.5
Oct.	93.25	31.	127.25	6.	235.	60.	129.5	265.	364.5	325.	10.9
Nov.	53.5	26.	152.5	86.5	242.75	153.	57.	1135.5	299.75	266.5	10.2
Dec.	54.5	23.	204.	49.5	312.75	81.25	-----	-----	312.75	81.25	9.7
Jan.	54.5	47.	190.25	37.	285.75	272.5	-----	-----	285.75	272.5	8.9
Total	854.25	481.5	1452.25	314.5	4615.25	2006.75	1397.5	3008.75	6012.	5015.5	99.97

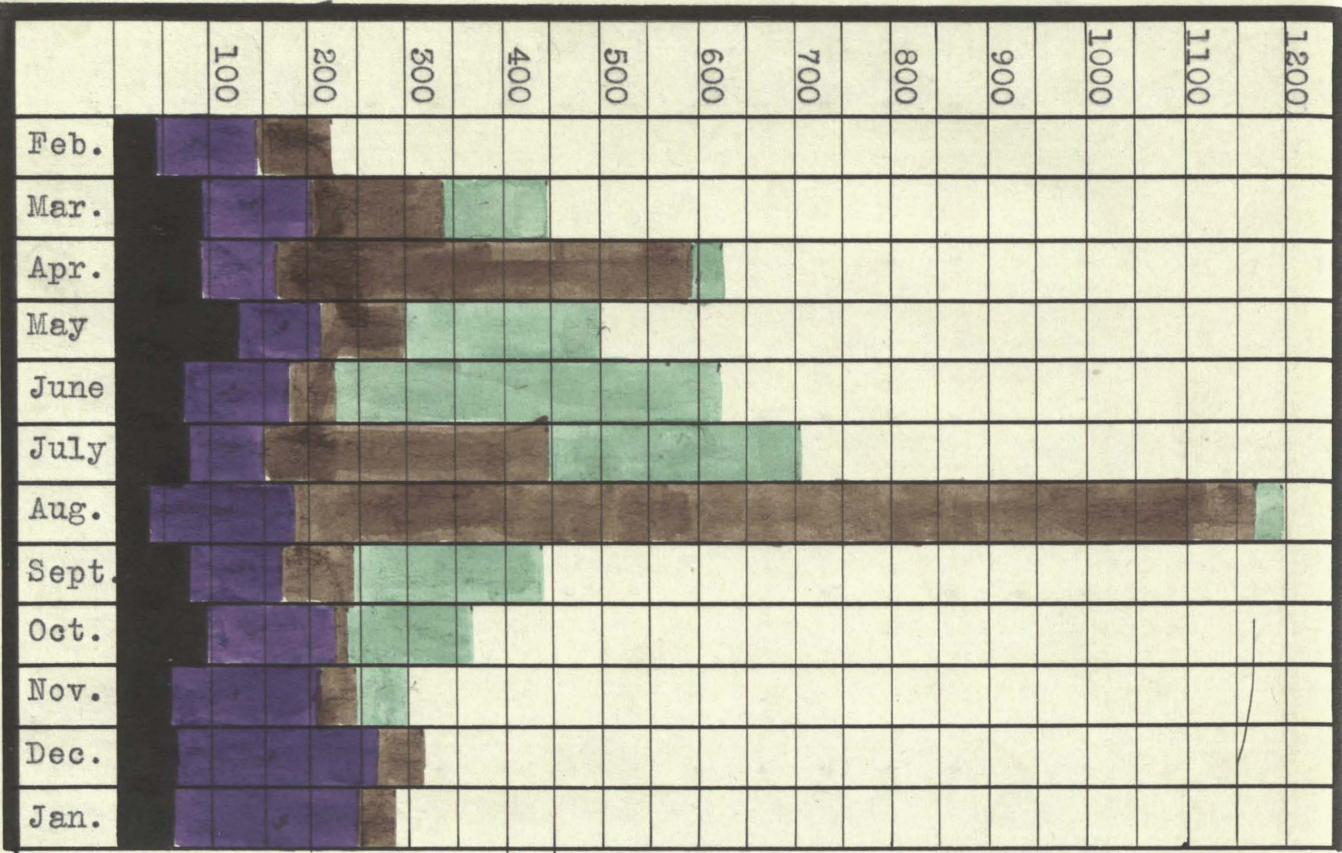
Total number of acres :176.5
 Acres in pasture : 53.75
 " of corn : 40.
 " " oats : 24.5
 " " wheat : 13.5
 " " clover : 0.
 " " other hay : 0.
 " " cowpeas : 29.
 " " soybeans : 0.
 " " alfalfa : 4.75

Class Of Stock
 Horses 6.4
 Cows 3.
 Other Cattle 37.
 Brood Sows 9.4
 Other Hogs 22.4
 Sheep 0.
 Poultry 184.
 Labor Income : \$183.
 Cost of Family Living : \$641.

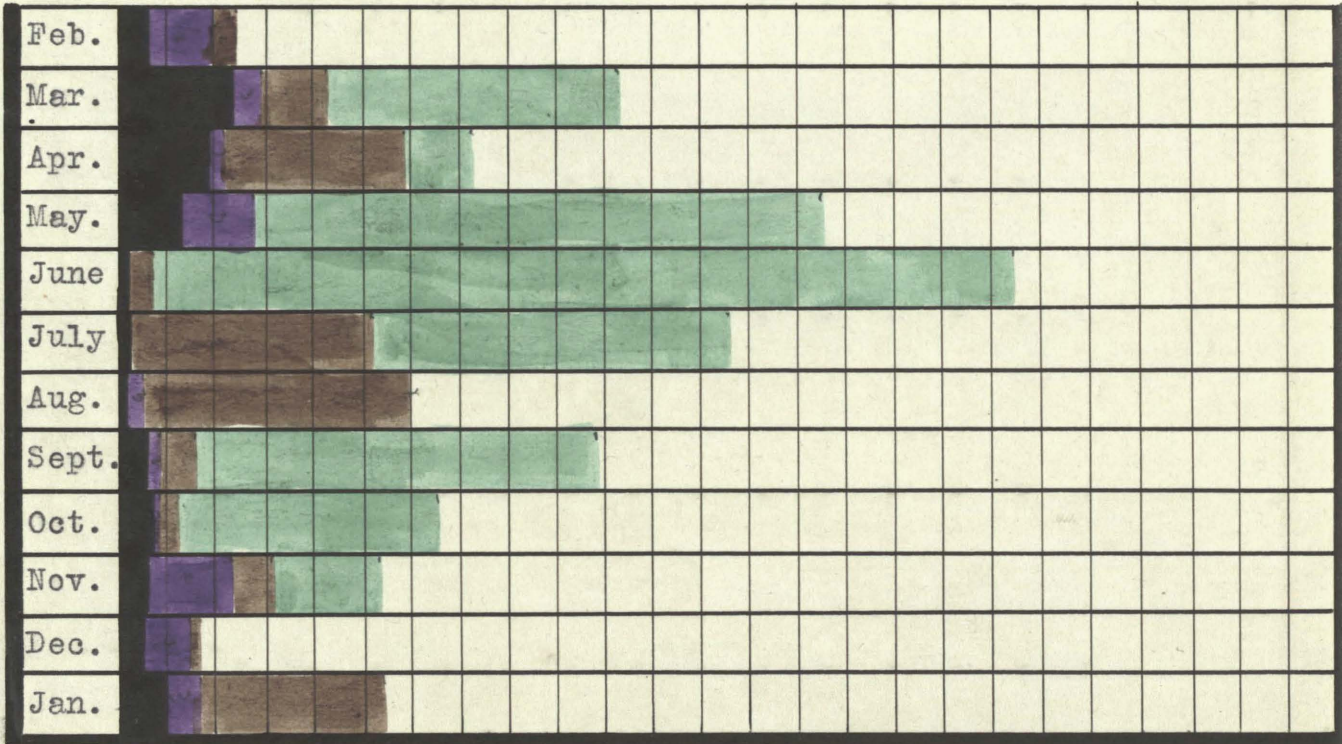
Animal Units
 5.47
 1.03
 11.84
 2.2
 3.25
 1.5
Total A. U. 25.29

Man Hours

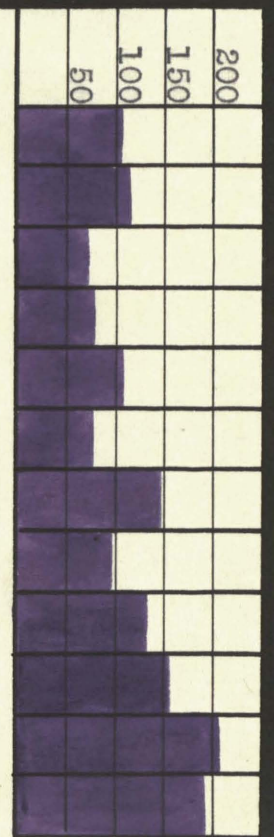
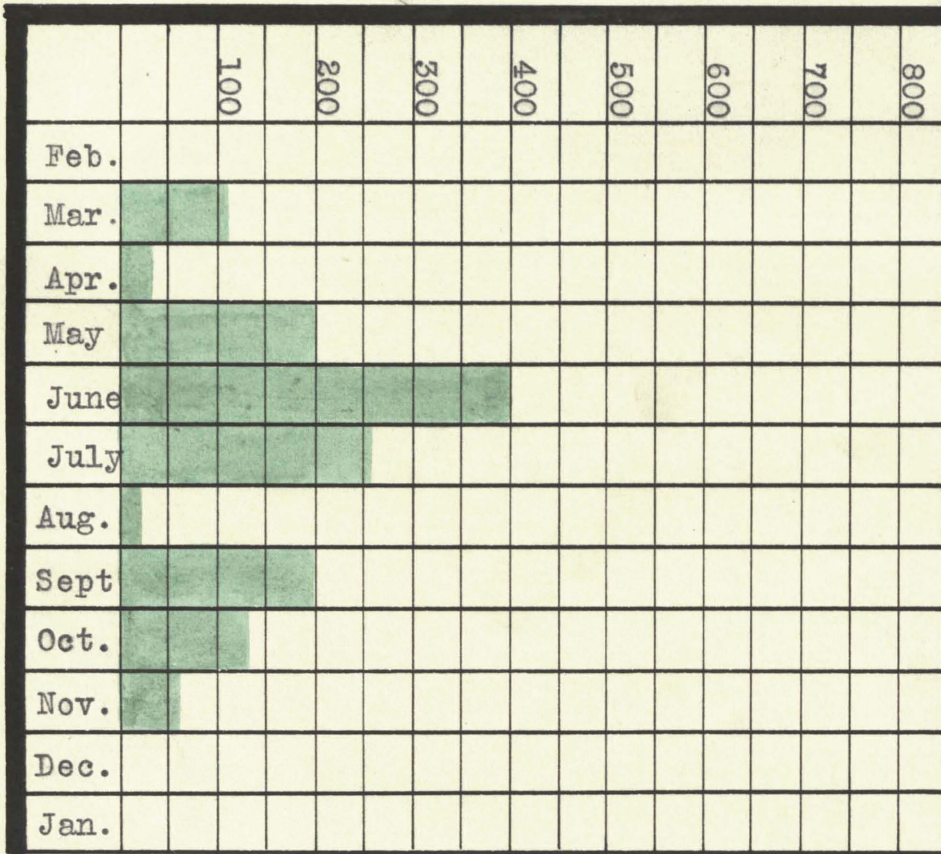
Total Labor Farm No. 25



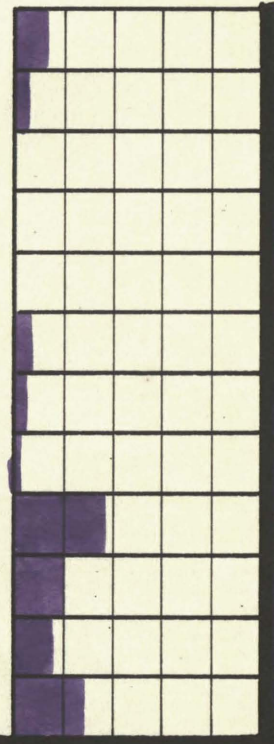
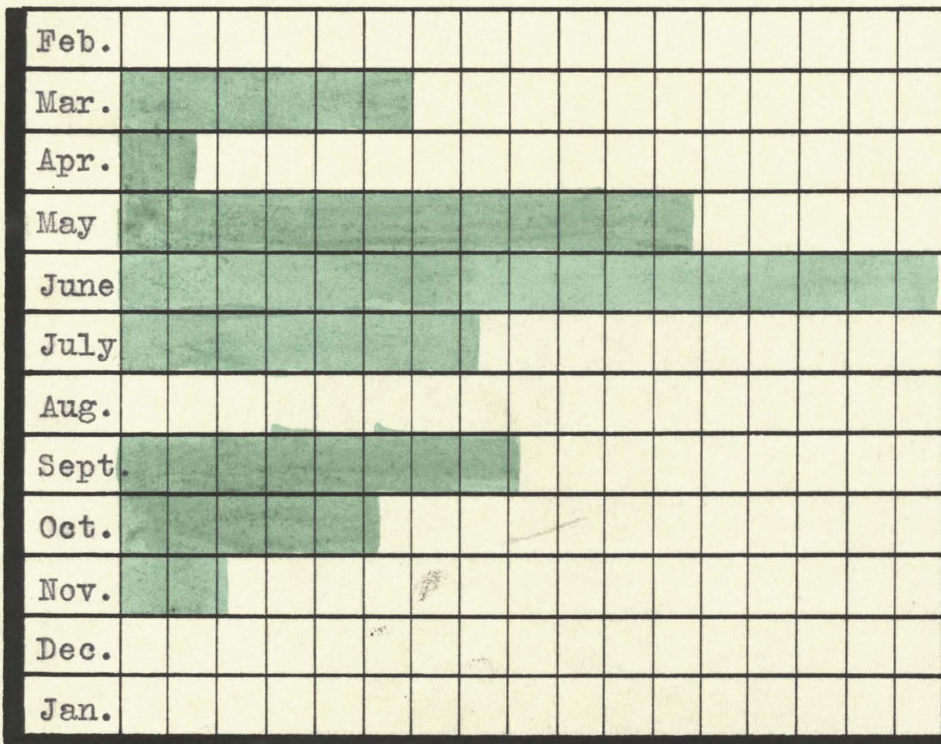
Horse Hours



Man Hours
Field and Stock Labor Farm No. 25



Horse Hours



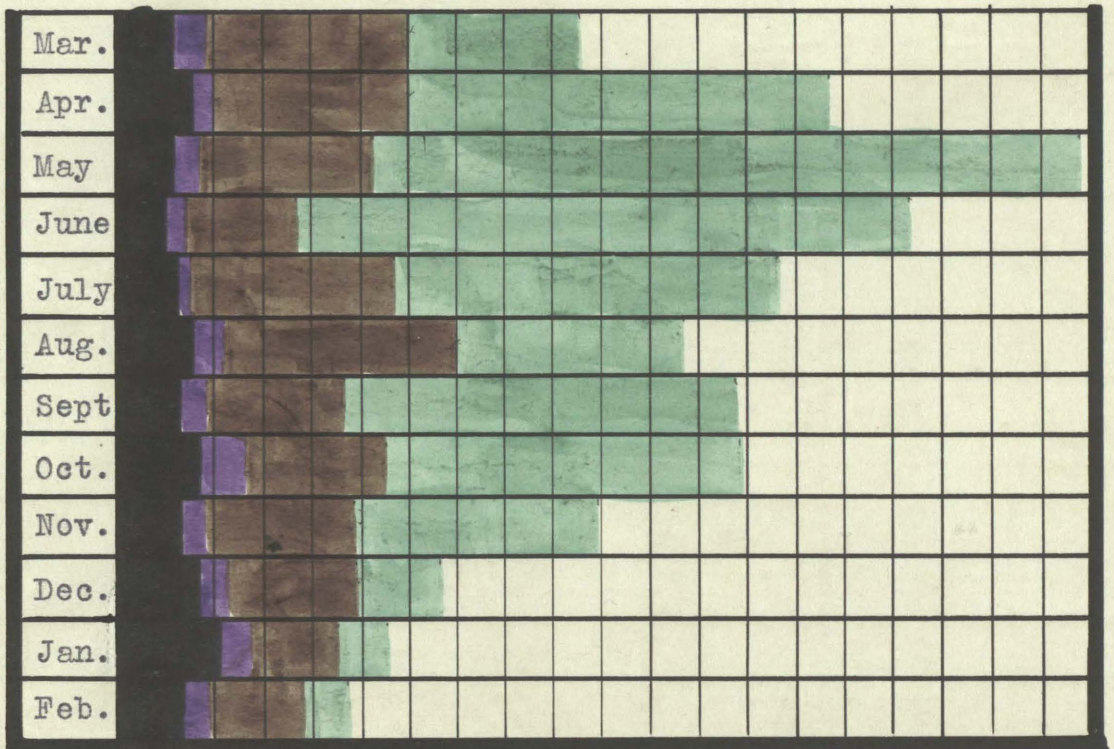
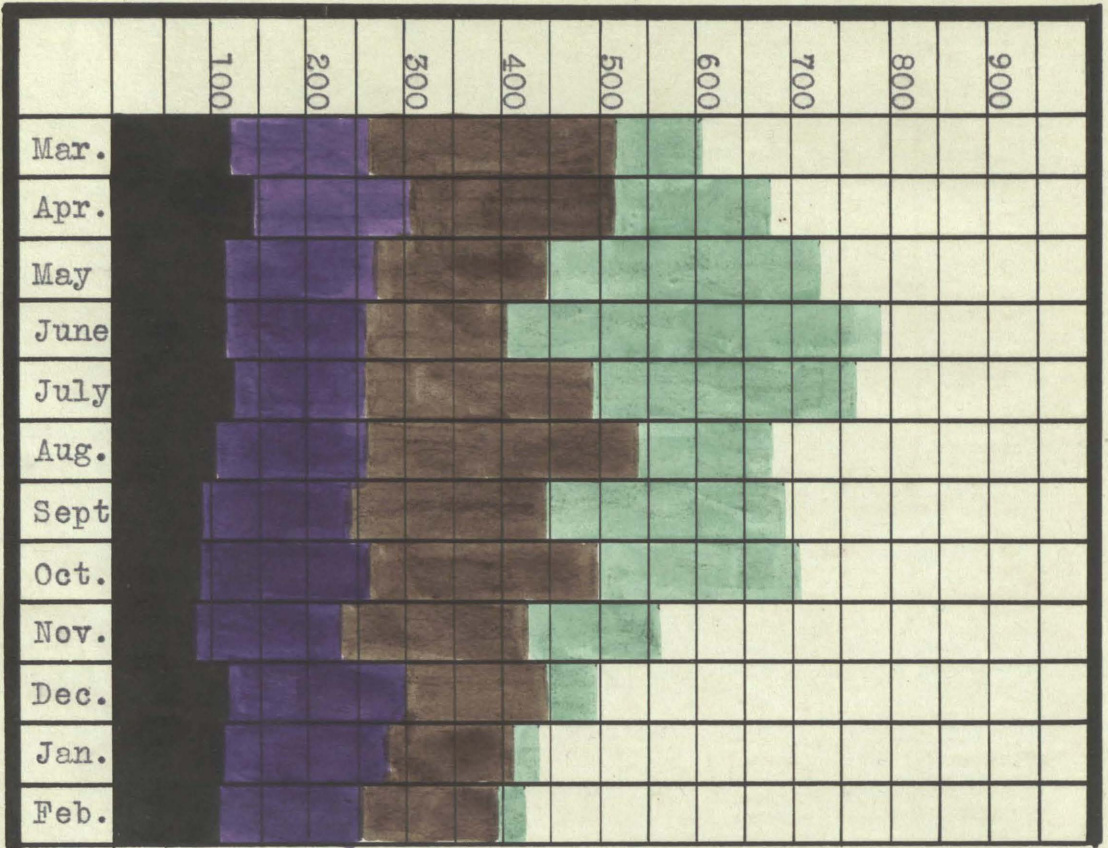
Data Sheet For Average Farm

Month	Maintenance		Stock		Total Miscellaneous		Field Labor		Total Labor		Hours Per Man
	Man	Horse	Man	Horse	Man	Horse	Man	Horse	Man	Horse	
Mar.	111.9	58.6	144.6	33.7	516.4	298.6	86.8	180.7	603.2	479.3	
Apr.	143.4	77.7	159.1	24.4	515.1	299.4	160.	437.1	675.1	736.5	
May.	116.3	57.5	155.5	26.5	447.9	266.	280.6	724.3	728.5	990.3	
June	117.7	47.9	141.3	24.2	400.8	188.5	386.8	631.	787.6	819.5	
July	126.3	59.5	133.4	14.	489.6	285.5	272.	395.1	761.6	680.6	
Aug.	102.6	79.3	154.8	31.2	538.6	350.6	141.3	238.2	679.9	588.8	
Sept.	90.4	64.3	154.4	23.	448.5	231.4	241.8	409.3	690.3	640.7	
Oct.	91.5	85.9	174.4	42.3	500.7	276.3	204.1	366.1	704.8	642.4	
Nov.	87.	63.	146.4	25.3	422.	244.6	138.	250.2	560.	494.8	
Dec.	119.	81.3	181.3	29.6	444.4	241.9	50.3	93.7	494.7	335.6	
Jan.	115.	102.8	167.2	30.1	407.2	227.4	30.2	51.3	437.4	278.7	
Feb.	105.7	71.6	148.	26.3	393.4	192.8	28.9	42.3	422.3	235.1	
Total	1326.8	849.4	1860.4	330.5	5524.6	3103.	2020.8	3819.3	7545.4	6922.3	

Total number of acres : 222.75
 Acres in pasture : 80.41
 " of corn : 46.59
 " " oats : 13.05
 " " wheat : 21.39
 " " clover : 3.28
 " " other hay : 11.16
 " " cowpeas : 4.22
 " " soybeans : 4.41
 " " alfalfa : 3.72

Class of Stock
 Horses 7.72
 Cows 5.53
 Other Cattle 15.02
 Brood Sows 8.26
 Other Hogs 40.48
 Sheep 11.04
 Poultry 124.
 Labor Income : \$ 370.39
 Cost of Family Living : 822.83

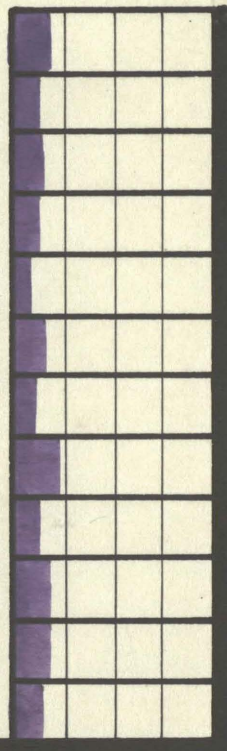
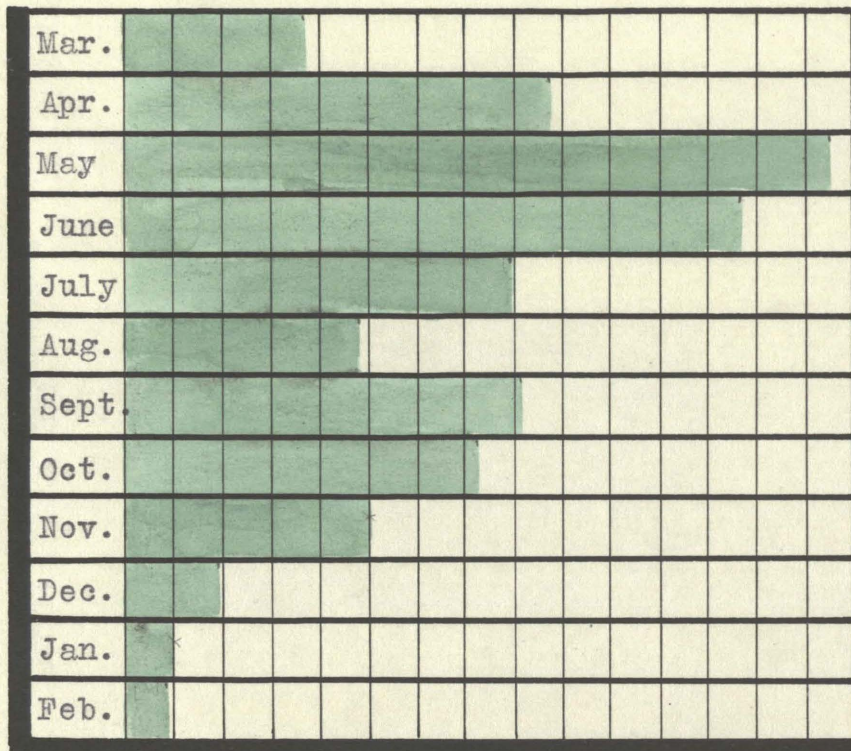
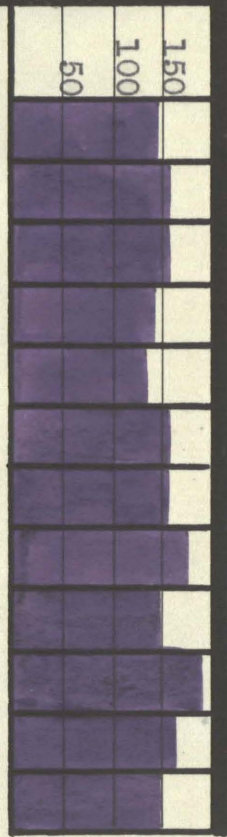
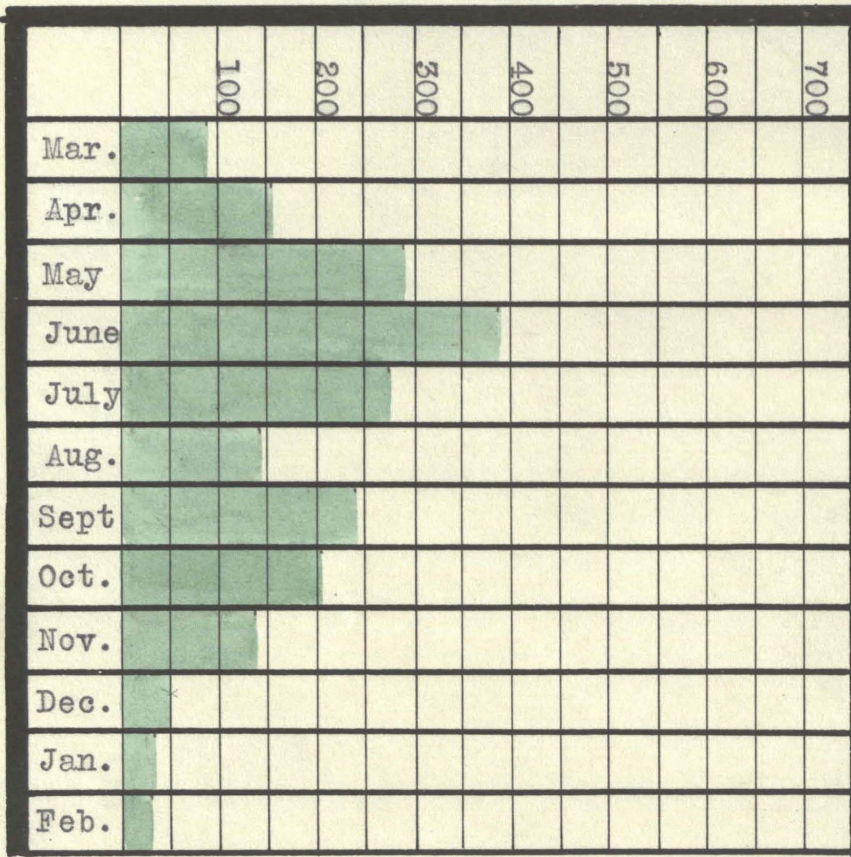
Animal Units
 6.82
 2.38
 4.29
 1.93
 9.21
 .52
 1.02
 Total A. U. 26.17



Field and Stock Labor Average Farm

Man Hours

Horse Hours



S U M M A R Y.

The total labor requirements of an acre of the various farm crops were found to be as follows:

	Man Hours	Horse Hours
Corn	21.8	38.75
Oats	9.37	17.90
Wheat	15.46	26.99
Clover	7.73	7.62
Timothy	7.36	8.71
Cowpeas	18.93	18.34
Soybeans	21.04	34.43
Alfalfa	18.49	31.98

The labor requirements of the various classes of stock per animal are as follows:

	Man Hours	Horse Hours
Work Horses	75.18	8.86
Milk Cows	100.14	3.91
Other Cattle	62.13	22.92
Brood Sows	28.76	2.49
Other Hogs	20.16	5.67
Hens, per 100	203.92	17.86

Grain Farms: Grain Farms studied showed the lack of a system whereby labor would be distributed very regularly throughout the year. The system commonly used provides plenty of labor for the months of May, June, and July, but not enough for other months. To a great extent this poor distribution is due to the cropping system. It is possible to secure even distribution by

a good choice of crops. Where oats can be profitably grown, growing more oats and less corn would help to solve the farmer's problem. Then, too, some Other Production should be provided to furnish work when the crops do not demand it.

General Farms: General farms were found to be somewhat better as to labor distribution. There are two definite periods on the general farm when a large amount of labor was demanded. These periods are May, June, and July, and September, October, and November. However, the managers of these farms usually employ hired labor for a longer period, because thereby they get better workmen. Managers of such farms need to solve the problem of utilizing the workmen during the interval between the periods of maximum labor. The fact that the general farms were found to average about 50 acres larger than the grain farm, made it easier to plan a better cropping system. Man labor seems to be less efficiently used on these farms than on specialized farms, the average hours worked per day being only 9.3, while on the grain farm it was 10. Horse labor was utilized with equal efficiency on both kinds of farms. The average time worked per horse per day was low in many instances because either more horses were kept than were necessary, or the labor was not so planned as to make the best use of the horse labor available.

Stock Farms. The stock farms open a possibility of planning a system that would distribute the man labor quite uniformly and help distribute the horse labor. For a lot of work can be done on stock during months when there is not much crop labor to be done. Dairy farming, a special phase of stock farm-

ing, provides an even better distribution of man labor than other types of farming and a careful planning of the crop rotation on such a farm, will produce a much better horse labor distribution than is possible on any other type of farm.

The study of all these farms has shown the dependence of horses on crop labor, and the independence of man labor on this class of work. Therefore more attention should be given to planning a system that will provide a more even amount of labor. A study of the tables presented on labor requirements of crops and stock will materially aid in planning a farming system that will maintain a fairly uniform distribution of labor throughout the year.

It has not been the purpose of this paper to present an ideal farm plan. For any plan worked out for all farms will not meet the needs of any one farm. In certain sections of the state the farmers can produce only certain farm products, and it is impossible to introduce new products. It is possible, however, to make some change in nearly every farm system, and it was for the purpose of enlightening the farmer or student on certain phases of the farm business that this investigation was carried on.