

FARM BUSINESS ANALYSIS STUDIES.¹

H. M. DIXON,

FARM MANAGEMENT, WASHINGTON, D. C.

Farm Business Analysis Studies, or as they were formerly termed, Farm Management Surveys, have been in progress for about twelve years. Within this time this line of study has probably made as great advancement as that of any other phase of Farm Management research. Twelve years ago very little data on the actual financial conditions of farming in various areas or for a given type of farming were available. Today a number of the State Colleges and Experiment Stations and the U. S. Department of Agriculture have a good start in this important line of work. The results of the work so far accomplished have been of great aid in showing that, while, as a rule, no phenomenal profits can be expected from agriculture as an occupation, it is a good life work and, if capital and labor are wisely expended it will return fair wages and a moderate return on the investment. These studies have also aided in establishing some of the fundamental factors affecting profits in farming. Probably it is safe to say that they have been the leading study in this connection. Studies wherever carried on have shown that size of business, yield of crops, production per animal and efficiency in the use of labor are the primary factors for success on a majority of farms. Their importance in showing the great variation of these factors in a given locality or for a given type of farming and the effect these variations have upon farm profits can also not be over emphasized. It is quite true that farmers readily know that good cows are more profitable than poor ones and that good crops are more desirable than those which do not pay for harvesting, but farmers in all localities little realize the wide variations of these factors from farm to farm and the effect of such variations upon the financial side of their business. In a study of 378 owner farms in Chester County, Pa. (1911), 13 percent had receipts of less than \$50 per cow, while 15 percent had receipts of over \$100 per cow. Another study carried out in Sumter County, Georgia (1913), showed that out of a total of 268

¹ Paper read at the tenth annual meeting of the American Farm Economic Association, Chicago, Illinois, November 13, 1919.

white owner farmers 39 percent were getting about one half a bale or less of cotton per acre, while 23 percent of their neighbors were getting over two thirds of a bale per acre. Studies in other areas show this same wide range of variation of those factors that are vital to farm profits. The analysis of the business and determination of some of the factors causing these wide variations are of much importance and when such studies are properly conducted they are a most important and valuable aid in revealing the fundamental factors for successful farming.

Naturally, the progress in business analysis studies has been more marked in the past few years than during the earlier years. The leaders of this work twelve years ago had a number of problems which are not so marked today. The training of men for the work was one large factor, another was the methods to be pursued and probably a third factor, the attitude of the individual farmer towards the business side of his occupation. As time has passed, all of these problems have become less pronounced. A number of the leading colleges of the country are training men for the field of work in Farm Management and Farm Economics. The methods of work are becoming rather well established and farmers are becoming more and more interested in the economic side of their business. High costs, together with the adoption of the income tax law, have proven to many farmers the importance of keeping better accounts of their business. In a recent study of 402 farms in Iowa for the year 1918, 34 percent were keeping an account of all the main items of receipts and expenses, 29 percent additional were keeping some accounts, thereby leaving only 37 percent of the farms where no accounts were kept. For the farms in Ohio where the study has continued over seven years, we found the first year (1912) that 20 percent were keeping rather complete accounts, 52 percent additional were keeping partial accounts and 28 percent no accounts, while for the year 1918, 36 percent were keeping a complete account, 40 percent additional were keeping partial accounts, and 24 percent no accounts. The greatest change in this area has been that many of those who formerly kept partial accounts are now keeping rather complete financial accounts.

Farm Management demonstrations have also been a great aid in establishing Farm Business Analysis studies. Men had not been in this field of work long until they found that the fundamental material necessary in establishing their work on a sound basis was in many states wholly inadequate and one of the first lines of work

carried out was that of analyzing the business of a number of farms in various sections of each state in order to establish the fundamental factors that were affecting farm profits. It represented a valuable piece of work and was successfully carried out in most states. The results thus obtained, when returned to the individual farmers, gave them a real picture of what profits could be expected from farming and pointed out some of the determining factors in returning fair profits. The studies carried out in this manner represented the results of the business analysis of thousands of farms. They later followed this line of work with a campaign for better farm accounting and through their efforts many farm account books have been kept.

Reasons such as I have indicated here explain partly at least why in the earlier days of farm surveys dependence was placed upon averages of groups of farms rather than individual farms while today we are able to make much greater use of the data from individual farms. It also helps to explain why today we are getting the data in much greater detail regarding each individual farm business including what the farm contributes towards the family living. Many of the earlier surveys received what might be termed skeleton figures or only those of the more important receipts, expenses and inventories, and for the use for which they were desired were probably as good as any. Today it is important to use business analysis data not only in the terms of an average for a large group of farms, but as a study of the individual variations affecting any particular phase of the business. The data must, therefore, be in complete enough form to enable the proper interpretation of the results of each farm.

Another phase which should be mentioned in connection with this line of work is the remarkable uniformity with which it is carried on throughout the country. With practically no exceptions the same general methods are used by the U. S. Department of Agriculture, and by the State Agricultural Colleges and Experiment Stations. Within the past few years, the Department of Farm Management of the Guelph Agricultural College of the Province of Ontario, Canada, has taken up this work under the same general methods and several bulletins have been published. This uniformity lends great value to the work and as time goes on the results obtained can be gradually added to those already obtained and within a few years, will represent a valuable fund of information. The accumulation of this kind of information will have a great value in future studies of farm organization problems as it is important to study past conditions as well as those of the present. There is also considerable uniformity in the publication of results. However, I believe if a rather uniform

method was practiced for all publications in showing a summary table of the results it would be of some advantage to those interested in getting at a particular phase of the findings. The form which we have found very satisfactory showing the summary of the farm business is given in Table III. The use of this or some modification of it will be of great aid to those interested in getting together a particular phase of the results from a number of reports or bulletins.

In the early years of these investigations in the Office of Farm Management, because of the immediate need of results it was necessary to base conclusions upon the data obtained for a single year. Great care was used in selecting areas, as it was the aim to study only areas where practically normal conditions prevailed. To throw additional light upon the subject of farm profits, studies were later inaugurated to be continued over a period of successive years in the same areas. The work has now been in progress for a sufficient length of time to allow the inauguration of the third type of study or what we term "repetition studies," that is, a survey of the same area after a lapse of a period of years. The work is, therefore, being conducted under the three types of studies as follows:

1. An investigation which covers a study of farms for a single year.
2. Studies of the same farms carried over a period of successive years.
3. Repetition studies in the same area after a lapse of a period of years.

Each of these lines of study have their place and value depending upon the aims and purpose of the work. Because of the abnormal values prevailing upon farms within the past few years, the two types of work of great interest and value are those extending over a period of successive years and those repeated in an area after a lapse of a period of years.

The results which I desire to present today will deal with some of the data obtained from a study of the same farms for successive years and also some of the data obtained from a study repeated after a lapse of a period of years.

For the successive years' studies we have the results from four areas, one each in Ohio, Indiana, Wisconsin and New Jersey. The Ohio results are from a hill land region in the southeastern section of the state. The Indiana area is located in the north central section of the state. The results from the Wisconsin area are from a dairy region and the New Jersey area is a district of rather large truck farms. A summary of the results of these four studies is shown in the following table. (Table I.)

TABLE I.—*Summary of the farm business of farms in selected areas in Ohio, Indiana, Wisconsin and New Jersey.*

Areas.....	Washington County, Ohio. 7 (1912-1918).	Clinton County, Indiana. 7 (1910 and 1913-1918).	Dane County, Wisconsin. 5 (1913-1917).	Gloucester County, New Jersey. 3 (1914-1916).
Years Covered.....				
Number of farms.....	25	100	60	125
Farm area.....	159	126	148	81
Crop area.....	44	93	81	53
Value of real estate per acre.....	\$31	\$183	\$100	\$97
No. productive animal units.....	15.5	20.2	30.7	6.6
No. work stock.....	2.7	4.7	4.7	4.3
No. months labor.....	17.5	19.1	22.5	36.8
Investment.....	\$6,682	\$25,958	\$17,692	\$10,445
Real estate.....	4,912	23,234	14,802	7,850
Other capital.....	1,770	2,724	2,890	2,595
Receipts.....	\$1,089	2,787	2,300	4,217
Important sources (percent)				
Cattle.....	23	Hogs, 42	Dairy, 49	Tomatoes, 31
Poultry, 18		Corn, 13	Hogs, 28	Sw. potatoes, 28
Sheep, 15		Oats, 13	Cattle, 14	Asparagus, 8
Hogs, 13		Cattle, 10	Poultry, 4	Wh. potatoes, 5
Dairy pro., 6		Wheat, 6		Cantaloupes, 4
Wheat, 6		Dairy pro., 4		
Hay, 4				
Fruit, 3				
Expenses.....	\$484	\$931	\$1,007	\$2,681
Farm income.....	\$605	1,856	1,293	1,536
Interest on investment @ 5%.....	334	1,208	885	523
Labor income.....	271	558	408	1,013
Value operator's labor.....	304	369	465	480
Percent return on investment.....	4.5	5.7	4.7	10.1

The farm area, crop area, value of real estate per acre, productive animal units, number of work stock, months of labor, and investment per farm is shown for each of the four areas. The farms are largest in Ohio, the crop area, real estate per acre and investment are highest in Indiana. The number of productive animal units is highest in Wisconsin and months of labor is highest in New Jersey. The New Jersey area represents the greatest intensity of production. The receipts are highest in New Jersey and lowest in Ohio.

The percent of the total income from the various sources gives an idea of the relative importance of the various enterprises in the different regions. In the Ohio area, cattle, poultry, sheep and hogs in the order named are the main sources of receipts. In Indiana, it is hogs, corn, oats and cattle. In Wisconsin, it is dairy, hogs and cattle, while in the New Jersey area, tomatoes and sweet potatoes are the major sources of income. The Ohio area shows the greatest diversity of receipts and the Wisconsin area the least.

The next part of this table shows the average incomes of these farmers over the periods covered by the studies. The study in the Ohio area over a seven-year period, shows them making an average labor income of only \$272, or after allowing a conservative value for their own labor they have left $4\frac{1}{2}$ percent return on their investment. Seven years' results are also shown for the Indiana area and the average labor income for this period is \$558, and the return on investment is 5.7 percent. In Wisconsin, the five-year average labor income was \$408 and the return on investment was 4.7 percent. The New Jersey area returned the highest profits and was the area with the largest size business from the standpoint of the amount of labor and working capital required to operate the farms. These farms average a little over 3 men per farm per year. For the average of the three years they returned over \$1,000 labor income or 10 percent on the investment.

In the next table is shown the data for the two areas, Ohio and Indiana, where the results extend over a period of seven years. For the Ohio area, the results are from 25 farms upon which we have continued this study since the year 1912. The Indiana area gives the results of 100 farms where we have continued the study since 1910, excepting for the years 1911 and 1912. The results from these 100 farms, therefore, apply to the years 1910, 1913, 1914, 1915, 1916, 1917 and 1918. In this table the farms for each of these studies are separated and averaged for a comparison of the years before the effect of higher costs and higher prices with that of a comparison of the years affected by higher costs and higher prices. The results are expressed

in percentage. In Ohio the data for the four years, 1912, 1913, 1914 and 1915, are used as 100 percent, or what should be expected normally, for comparison with the three years, 1916, 1917, and 1918. In Indiana the average of the four years, 1910, 1913, 1914 and 1915, are used as the basis for expressing the percentage increase of receipts and expenses for the years 1916, 1917 and 1918. (Table II.)

TABLE II.—Shows the percentage increase in receipts and expenses in the Ohio and Indiana areas for the years affected by increased prices and costs.

	Ohio Area.				Indiana Area			
	(Average of Years 1912 to 1915 = 100%.)				(Average of 1910 and 1913 to 1915 = 100%.)			
	1916.	1917.	1918.	Average 1916 to 1918.	1916.	1917.	1918.	Average 1916 to 1918.
Receipts, percent increase.	127	181	163	157	138	157	201	165
Expenses, percent increase.	111	138	182	144	112	152	183	149

For each area comparison showed only a slight change in size of farms, crop area and investment. The change most marked is that of the receipts and expenses. Receipts from the Ohio area increased from 127 percent in 1916 to 181 percent in 1917, but declined to 163 percent in 1918, due mainly to the poor corn crop that year. Expenses have been rapidly rising, being 11 percent in 1916 and 82 percent in 1918 above the normal. In Indiana receipts in 1918 increased to 201 percent and expenses to 183 percent of the normal. A study of the source of income for each area shows the major enterprises returning a larger proportion of the income during the latter period of study than for former years. The increase in farm income for the two periods was 68 percent in Ohio and 74 percent in Indiana.

Table III shows a summary of the business of the 100 farms in Indiana over a seven-year period. Real estate has increased from \$147 per acre in 1910 to \$218 per acre in 1918. As shown from an analysis of the receipts upon these farms, no marked change has taken place in the type of farming, as hogs, corn and oats represented the leading sources of income over this period. Wheat shows the greatest variation. Corn was lowest for the year 1917 due to a severe hail storm which greatly reduced the yield of that year.

The changes most pronounced, however, are those of the receipts and expenses. The receipts average \$1,911 per farm in 1910 and increased to \$4,386 in 1918. The distribution of receipts upon these farms over the period of study is of interest.

Expenses averaged \$624 per farm in 1910 and gradually increased to an average of \$1,408 per farm in 1918. The distribution of the more important items of expense are also shown in the table.

TABLE III.—*Summary of the farm business over a period of seven years on 100 farms in Clinton County, Indiana.*

Items.	1910.	1913.	1914.	1915.	1916.	1917.	1918.	7-Year Average.
Number of farms	100	100	100	100	100	100	100	100
Farm area	116	124	126	129	130	130	127	126
Crop area	86	91	92	96	93	95	93	92
Real estate per acre	147	182	183	183	184	188	218	183
Prod. animal units	18.2	19.2	21.3	21.0	21.1	20.0	20.7	20.2
Work stock	4.8	4.6	4.8	4.9	4.8	4.8	4.5	4.7
Months of labor	18.2	18.8	18.9	19.6	19.4	19.6	19.0	19.1
Investment	\$19,055	\$24,936	\$25,724	\$26,436	\$26,599	\$27,822	\$31,135	\$25,958
Real estate	16,977	22,672	23,084	23,728	23,888	24,571	27,720	23,234
Other capital	2,078	2,264	2,640	2,708	2,711	3,251	3,415	2,724
Receipts	1,911	2,261	2,158	2,377	3,004	3,412	4,386	2,787
Sources:								
Hogs	40%	35%	40%	34%	42%	53%	42%	42%
Corn	10	15	15	15	20	8	8	13
Oats	12	9	13	15	13	13	14	13
Cattle	8	10	9	9	11	11	13	10
Wheat	11	4	6	12	1	1	10	6
Dairy products	2	4	5	4	3	4	4	4
Other receipts	17	23	12	11	11	10	9	12
Expenses	\$624	\$758	\$828	\$868	\$864	\$1,169	\$1,408	\$931
(Divided as follows):								
Hired labor	21%	17%	18%	18%	18%	15%	15%	17%
Family labor	8	11	8	9	9	8	8	9
Rep. and Depr. Mch.	8	8	7	7	7	6	6	7
Rep. and Depr. House	4	3	3	3	3	2	2	3
Rep. and Depr. Other								
Buildings	5	4	4	4	4	3	3	3
Rep. Fences	5	5	5	4	5	3	3	4
Feed	11	10	19	15	16	33	25	18
Seed	3	3	2	4	4	3	8	4
Fertilizer	1	1	1	1	1	1	2	1
Machine work hired	6	8	7	6	5	4	6	6
Taxes and insurance	23	22	20	21	22	18	15	20
Other expenses	6	8	6	8	7	5	7	8
Farm income	\$1,287	\$1,503	\$1,330	\$1,509	\$2,140	\$2,243	\$2,978	\$1,856
Interest on investment @ 5%	953	1,247	1,286	1,322	1,330	1,391	1,557	1,298
Labor income	334	256	44	187	810	852	1,421	558
Value, operator's labor	312	325	332	338	349	402	527	369
Return on investment	5.1%	4.7%	3.9%	4.4%	6.7%	6.7%	7.9%	5.7%

¹ Less than one percent.

Comparing the average of the first two years with the last two, receipts have increased over this period 87 percent and expenses have increased 86 percent. For the first four years of this study the labor

income was very low but for the last three years it has shown considerable increase over the former period. The returns on investment vary from 3.9 percent in 1914 to 7.9 percent in 1918.

In connection with this study of the 100 Indiana farms there are numerous other phases which I should like to bring to your attention if we had the time to properly analyze them. For instance, the study of farm tenure on these farms. Some were operated through the entire period of seven years as owner farms, other changed from tenant to owner, still others were tenants throughout the entire period. Many changes were made also in the size of business, some were operating a much smaller business at the close of the study, while others had increased the size quite materially, and still others had about the same business throughout the entire period. The study of some of the results of these changes is of much interest and value. The yields alone make a very interesting study on owner and tenant farms over this seven-year period. Another study which we are able to make from this area is in relation to the effect of the tractor upon the organization of some of these farms. At the beginning of the period of study not one of these farmers owned a tractor, but beginning with the year 1916, a few purchased tractors and at the end of this period of study, six of these men had purchased tractors. This represents valuable information upon these farms in this connection, as it shows not only the results from years with the tractor but also the results of at least three years' operation on these farms before purchasing a tractor.

I merely cite a few instances from this continued study to show the great fund of material such studies make available, all of which is very important in connection with studies of farm organization.

I should like to refer briefly to a summary of some of the results of a study repeated after a lapse of five years. For the farm year 1913, we made a business analysis study of over 500 farms in Sumter County, Georgia, which is a cotton area. During this past spring we repeated this study in coöperation with the Georgia College of Agriculture for the year 1918.

In the next table is shown the summary of the business on the white owner farms for each of the two periods (Table IV). The farm area, acres in crops and number of work stock, are practically the same for each period. One interesting point in this summary is the large amount of labor required in operating these farms. This amounted on the average to the equivalent of about 8 men per year.

TABLE IV.—*Summary of the farm business on farms operated by white owners, Sumter County, Georgia.*

Year	1913. 268.		1918. 280.	
Number of Farms.....				
	<i>per farm</i>	<i>percent</i>	<i>per farm</i>	<i>percent</i>
Farm area-acres.....	420		432	
Crop area-acres.....	227		223	
Value real estate per acre.....	\$34		\$53	
Number of work stock.....	6.5		6.5	
Months of labor.....	95		91	
Investment.....	\$17,021		\$27,046	
Real estate.....	14,131		22,774	
Other capital.....	2,890		4,272	
Receipts:.....	\$ 4,867		\$ 8,564	
Sources of:				
Cotton.....	3,475	71	5,178	60
Cotton seed.....	520	10	962	11
Corn.....	133	3	412	5
Hogs.....	86	2	391	5
Peanuts.....	2	2	346	4
Expenses:.....	\$ 3,205		\$ 4,854	
Divided as follows:				
Hired labor.....	1,530	48	2,620	54
Family labor.....	43	1	68	1
Repairs and depreciation:				
Machinery.....	124	4	183	4
House.....	46	1	72	2
Other buildings.....	146	5	229	5
Fences.....	13	2	17	2
Feed.....	75	2	35	1
Seed.....	33	1	69	1
Fertilizer.....	758	24	892	18
Machine work hired.....	116	4	170	3
Taxes and insurance.....	100	3	153	4
Other expenses.....	221	7	346	7
Farm income.....	1,662		3,710	
Interest on investment 7 percent.....	1,191		1,893	
Labor income.....	471		1,817	
Value of operator's labor.....	476		643	
Percent return on investment.....	6.2		10.2	
Family use:				
Food products.....			720	
Fuel.....			44	
Use of house.....			196	

² Less than 1 percent.

Only 12 percent of these farms had less than 24 months of labor while 7 percent had over 240 months. There was a marked increase in the value of real estate, also a marked change not only in the amount of receipts per farm but in the distribution of these receipts as well. Cotton in 1913 occupied 57 percent of the crop area and returned 81 percent of the total farm receipts, while in 1918 it occupied 38 percent of the crop area and returned 71 percent of the farm

receipts. The enterprises of corn, hogs and peanuts showed a marked increase within this period. Expenses increased 51 percent on these farms and the distribution of expenses for each period is shown in the chart. Hired labor in 1913 was 48 percent of the total expenses and in 1918, 54 percent. Less fertilizer was used in this area for the latter period.

The average labor income of these farms after allowing 7 percent interest on the investment was \$471 in 1913 and \$1,817 in 1918.

The value of food products, fuel and use of house was also obtained from these farms for 1918. These amounted to \$720 per farm, two thirds of which was food products and 27 percent use of house.

The next table shows the results of a study of the farm loans and interest rates on these farms for the two periods (Table V). For years the custom in this region has been for farmers to borrow each year most of the money for carrying on their business during the year. For the year 1913, 60 percent reported yearly loans and for 1918, 42 percent. The interest rate averaged 7 percent for each period.

TABLE V.—*Farm loans and interest rates, Sumter County, Georgia, 1913–1918. White owner farms.*

	1913.	1918.
Number of farms reporting <i>yearly</i> loans.....	160	118
Percent of total number of farms	60	42
Amount of loan per farm reporting	\$ 948	\$1,124
Interest rate	7	7
Number of farms reporting <i>mortgage</i> loans	101	65
Percent of total number of farms	38	23
Amount of loan per farm reporting	\$4,949	\$6,908
Interest rate	6.9	6.6

In regard to the mortgage loans, 38 percent of the farms were mortgaged in 1913 and 23 percent in 1918. The interest rate showed a slight decrease from 6.9 percent to 6.6 percent. The amounts per farm of both annual and mortgage loans were higher in 1918.

The amount of cash a farmer must have on hand to operate a farm in this area is a considerable item. In 1913 this amounted to an average of over \$1,000 per farm, of which 56 percent was borrowed and 44 percent furnished by the operator. In 1918 the average cash necessary was over \$1,200 per farm, of which 38 percent was borrowed and 62 percent furnished by the operator. A study of the

sources of cash for operating these farms for each year shows that in 1913, 39 percent of the farmers borrowed all their cash, 21 percent borrowed a part and furnished a part, and 40 percent furnished the entire amount necessary. In 1918 only 18 percent borrowed all, 26 percent borrowed a part, and 56 percent furnished all cash necessary.

TABLE VI.—*Cash for operating the farm, Sumter County, Georgia, 1913-1918. White owner farms.*

	1913.		1918.	
	Aver. Amount per Farm.	Per Cent. of Total.	Aver. Amount per Farm.	Per Cent. of Total.
Cash for operating the farm:				
Borrowed.....	\$566	56	\$474	38
Furnished by operator.....	449	44	773	62
Total cash for operating farm.....	\$1,015	100	\$1,247	100

	Number Farms.	Per Cent. of Total.	Number Farm s.	Per Cent. of Total.
Sources of cash for operating farm:				
All borrowed.....	103	39	49	18
All furnished by operator ..	108	40	157	56
Part borrowed and part furnished by operator.....	57	21	74	26

The effective use of labor, mules and machinery is an important consideration on these farms (Table VII). In 1913, 57 percent of the crop area was devoted to cotton and in 1918, 38 percent. This, of course, means considerable decrease in the intensity of operation, and must be considered in a study of the results shown in Table VII. The labor cost increased from \$11.45 per tilled acre to \$18.43 per acre or 61 percent.

TABLE VII.—*Comparison of the use of man labor, mule labor and machinery on the Sumter County, Georgia, white owner farms, 1913 and 1918.*

	1913.	1918.
Percent of crop area in cotton	57	38
Value of labor per crop acre	\$11.45	\$18.43
Number of acres of cotton per mule	19	11
Number of acres of other crops per mule	8	17
Value of machinery per crop acre	\$ 2.14	\$ 2.71

Mules worked an average of 19 acres of cotton and 8 acres of other crops in 1913 and 11 acres of cotton and 17 acres of other crops in 1918.

Machinery showed very little change for the two periods. Because of the great amount of hand labor used on these farms, the machinery investment is small, averaging \$2.14 per crop acre in 1913 and \$2.71 in 1918.

TABLE VIII.—*Variation in cost of producing lint cotton per pound on different farms, Sumter County, Georgia.*

COST LINT PER LB.	1913							1918			
	NUMBER FARMS 534							NUMBER FARMS 550			
	NUMBER OF FARMS							NUMBER OF FARMS			
	10	20	30	40	50	60	70	10	20	30	
5											
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VARIATION IN COST				VARIATION IN COST			
COST LINT PER POUND	PER CENT OF TOTAL FARMS	PER CENT OF TOTAL COTTON		COST LINT PER POUND	PER CENT OF TOTAL FARMS	PER CENT OF TOTAL COTTON	
UNDER				UNDER			
18¢	92	96		40¢	91	97	
16	81	91		35	84	93	
14	65	77		30	68	81	
12 1/2	41	56		25	43	56	
10	17	17		20	16	25	

Table VIII shows the number of farms producing cotton at various costs for the two years. For 1913 we have the cost on 534

farms and for 1918 we have the cost for 550 farms. Naturally, the cost was much higher in 1918 than in 1913. There was a wide variation in the cost of production on different farms. This is true for each year. In 1913 one farm produced cotton at 5 cents per pound, while 8 had a cost above 25 cents per pound. In 1918 one farm produced cotton at 11 cents per pound, while on 10 farms the cost was above 50 cents. The chart shows that over 50 percent of the farms produced cotton in 1913 within the range from 10 cents to 15 cents, and in 1918 within the range from 20 cents to 30 cents.

THE ECONOMIC TEMPER OF THE FARMER.

At no time during the past have farmers been giving so much thought to farm management and applied economics as at the present. The writer has found them, as a class, vitally interested in all phases of economics, particularly those including cost of production, prices, price-fixing and hours of labor on the farm. A few farmers are voluntarily keeping very accurate records of their business, which they are using in directing and organizing their farms. Our most active agricultural associations in the state have called for the cost of production at their annual meetings, particularly requesting that it be a part of their programs.

The willingness with which the farmers have cooperated in obtaining costs shows the trend of thought. Most of them are appreciating that there is likely to be a let-down in price, although the cost for the next season will be fully as high, if not higher, than in 1919. Yet, wherever they have sufficient capital to allow them to pursue such a course, they are going ahead. The writer has yet to find farmers who believe that Labor had a right to decrease production by shortening its hours, or soldiering on the job.

At the same time, the farmers feel that they should not decrease production, as labor has been doing in the past, with the idea of inflating prices. They do believe, however, that with the coming of a more accurate knowledge of farm business, individuals who are inefficient in production will naturally drop out, thus materially assisting in giving the proper production for the needed consumption. In other words, they see that the individual should be so fitted to his position that he may be used in the most efficient manner possible in this great social organization. The intelligent producer realizes that this is a far more logical solution of the problem than to ask the farmers as a class to cut down production, a procedure which would tend to demoralize both the individual and the industry.

It is refreshing to feel that we have one class of citizens who stand upon a sound economic platform, who are not influenced by Bolshevistic ideas, and who are not led or intimidated in thought and nationality. If our Ship of State begins to rock they shall prove to be valuable ballast to keep it afloat through troublesome waters.

FRANK APP.

NEW JERSEY EXPERIMENT STATION,
NEW BRUNSWICK, N. J.