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CENTRAL OF GEORGIA RAILWAY COMPANY

AGRICULTURAL DEPARTMENT

RESULTS OF  
**TEST FARM WORK**

SEASON OF 1918

AND

SUMMARY OF RESULTS FOR YEARS

1912, 1913, 1914, 1915, 1916, 1917, 1918

SAVANNAH, GEORGIA, MAY 29, 1919

## EXPLANATION OF TEST FARM WORK

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The Test Farmers agreed to co-operate with the Railway Company in making practical tests of the farming methods advocated by the Agricultural Colleges of Georgia and Alabama, at points along the Railway right of way, where they could be seen by and be of benefit to the farmer patrons of the Central of Georgia Railway. The farmers did all the work and took all the profits. They kept careful records of all operations and expenses, and were protected from loss by guarantee from the Railway Company. They had the benefit of the advice and supervision of competent Agriculturists employed by the Railway, who visited them regularly during the crop growing season. And they received a plan and instructions for the operation of their farms, worked out by experts of their Agricultural Colleges, with a view of making as much net money as possible from a well balanced, forty-acre farm, properly cultivated under the most approved methods.

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## THE COST FIGURES

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When the keeping of Test Farm records was first started in 1912, farm accounting was in its infancy. Under present scientific methods of keeping farm accounts, the interest on the working capital necessary to conduct the farm would be included, and also the "Implement Cost," to cover interest and depreciation on the value of the farm implements used. The Test Farm plots of approximately forty acres were in most cases only part of a larger farm, and no attempt was made to estimate the proportion of overhead expenses which the Test Farm should carry.

While overhead, implement cost, and interest on working capital are minor items, they would be included under present day methods of accounting, and, therefore, the term "Operating Costs" is used in this report to make a distinction between the complete cost and the cost of actual operations.

# CENTRAL OF GEORGIA RAILWAY COMPANY

AGRICULTURAL DEPARTMENT

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SAVANNAH, GA., May 29, 1919.  
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## FINAL REPORT ON TEST FARM WORK

MR. W. A. WINBURN,  
Federal Manager,  
Savannah, Ga.

Dear Sir:

Our Test Farm work is finished. The purposes we had in mind when it was started have largely been accomplished. The Test Farms did not do it all by any means, but they helped. The methods which the Test Farms were primarily intended to encourage are no longer debatable questions. The advantages of, and necessity for, diversified crops and the proper rotation of same, is a lesson which has been well and thoroughly taught.

The Agricultural Colleges, their extension workers, and the County Demonstration Agents have preached the Gospel of Rotation and Diversification for years; and the Test Farms were helping by making a practical application of this Gospel; but war conditions and the boll weevil forcibly converted thousands of doubters who could not be reached through the ear or eye.

Test Farms have been operated for one or more years in forty-seven of the seventy-nine counties served by our line, and we have now reached a point where so many of the more progressive farmers (such as might be interested in test farming) are already following methods on their entire farms so nearly like those prescribed by the Colleges, that it is impossible to increase the number of farms, and it seems no longer necessary to continue the work.

The Farms were of value to the communities where they were established because they were actual, visible demonstrations of a complete system of crop growing, where the farmers in the community could conveniently watch a properly carried out rotation of diversified crops, and note the advantages.

The guarantee against loss was a most important feature of the work, for without it we never could have persuaded most of the Test Farmers to follow the methods prescribed by the State Agricultural Colleges. During the seven years' operation we gave 148 such guarantees, and paid for losses in only two cases, a total of \$233.73. In one other case there was a small loss which was caused by a flood, and was in no way the fault of the methods prescribed. In the one case where we paid the maximum guarantee of \$200, the loss was also caused by flood, but, due to a misunderstanding in regard to planting time, the crops were late, and were, therefore, damaged more than if they had been planted at the proper time.

We have prepared figures from the farms operated in 1918, also a summary of all operations for the seven years from 1912 to 1918, inclusive, and will give you report on results for the entire seven years work, as well as for last year.

### TEST FARMS IN 1918.

The figures for 1918 show the greatest average net profits per acre in the history of the work, in spite of the fact that the labor costs are charged at a higher rate than in former years; and this was necessary because of the general increase in labor costs.

When the work was started in 1912, a charge of 12c an hour for man labor and 7½c for each horse was agreed upon by the Test Farmers, and at that time they considered these charges large enough to cover the actual labor cost and also the expense for the use of farm implements, which is nowadays charged under the heading "Implement Cost." The labor costs for 1918 are figured at 15c an hour for man labor and 12½c an hour for each horse, which is probably a fair average, although there are many cases in this section where actual costs were higher.

Seventeen (17) Test Farms were operated with a total of 581½ acres in cultivation, and made an average net profit of \$45.35 per acre.



Below is a summary of the total figures for 1918:

Total value of the crop	-----	\$40,647.04
Cost of Crop:		
Man Labor	-----	\$2,846.48
Horse Labor	-----	2,111.01
Fertilizer	-----	2,475.51
Harvesting	-----	2,753.31
Seed	-----	842.50
Marketing	-----	611.08
		<u>\$11,639.89</u>
Income:		
Rent	-----	\$ 2,623.75
Net Profit	-----	26,383.40
		<u>29,007.15</u>
		\$40,647.04 \$40,647.04

The total value of the crop, \$40,647.04, paid all expenses for fertilizer, seed, marketing and ginning, etc., amounting to \$3,929.09; also \$7,710.80, covering all labor for preparation, cultivation and harvesting of the crop (which is charged against the different crops at a rate of 15c an hour for man labor and 12½c an hour for each horse) plus \$2,623.75 rent on the land at an average of \$4.51 an acre; and left the Test Farmers a net profit of \$26,383.40.

Dividing this net profit by 581¼ (the number of acres in cultivation) the average net profit is \$45.35, which is 93% of \$48.67, the average value of the land per acre.

Adding rent to the profit, the total income from the farms, after deducting the total cost of all expenses and all labor in making the crop, is \$29,007.15, or an average income of \$49.86, which equals 102% of the value of the land.

The following statements show the acreage and profits for each of the 1918 Test Farms, and give a list of the ten Test Farmers who made the greatest net profits per acre.

#### PROFITS ON TEST FARMS, 1918.

Farm No.	Post Office and State	Area Acres	Net Profit	Net Profit Per Acre
1	Goshen, Ala. -----	39	\$ 1,297.21	\$83.27
4	Meldrim, Ga. -----	39¼	1,020.22	25.67
6	Metter, Ga. -----	38	2,812.37	74.00
10	Gantt, Ala. -----	30	2,437.28	81.24
11	Toombsboro, Ga. -----	38	1,570.82	41.33
13	Dothan, Ala. -----	20	752.80	37.65
17	Bronwood, Ga. -----	37	1,218.73	32.94
18	Carrollton, Ga. -----	36	2,326.52	64.63
19	Bremen, Ga. -----	21¼	848.34	39.00
21	Madison, Ga. -----	31½	1,521.69	48.37
22	Bishop, Ga. -----	70	4,565.13	65.22
23	Chipley, Ga. -----	31	1,096.12	35.36
24	Danway, Ala. -----	27	840.00	31.11
25	Griffin, Ga. -----	27	1,058.75	39.21
27	Greenville, Ga. -----	25	1,540.25	61.61
33	Goodwater, Ala. -----	40	493.67	12.34
34	Jacksons Gap, Ala. -----	30¼	983.50	31.98
17 Farms.	Total -----	581¼	\$26,383.40	Avg. \$45.35

#### LIST OF TEN FARMERS WHO MADE THE GREATEST NET PROFIT.

	Name	Location	County	Profit Per Acre
1.	J. L. Gantt	Gantt, Ala. -----	Covington -----	\$81.24
2.	H. V. Trapnell	Metter, Ga. -----	Candler -----	74.00
3.	W. A. Norville	Bishop, Ga. -----	Oconee -----	65.22
4.	W. A. Garrett	Carrollton -----	Carroll -----	64.63
5.	L. H. McLaughlin	Greenville, Ga. -----	Meriwether -----	61.61
6.	J. H. Gaissert	Madison, Ga. -----	Morgan -----	48.37
7.	W. I. Dixon	Toombsboro, Ga. -----	Wilkinson -----	41.33
8.	J. D. Cox	Griffin, Ga. -----	Spalding -----	39.21
9.	W. H. Bush	Bremen, Ga. -----	Haralson -----	39.00
10.	T. W. Dawsey	Dothan, Ala. -----	Houston -----	37.65



As in former years, cotton was the biggest factor in the profit shown. From 191½ acres in cotton 58,993 pounds of lint were sold for \$18,781.52. This gave an average net profit per acre of \$58.94, with an average yield of 308½ pounds of lint; the average price received was 31.8c a pound, while the operating\* cost of growing the cotton was 11c a pound.

The cost of growing cotton has been much discussed of late, and many authorities figure that it cost more than twice 11c to make a pound of cotton last year. The Test Farm costs do not include items for overhead, interest on the working capital and implement cost; but it should be remembered that the Test Farms were operated by the wages system, that the Test Farm production of 308½ pounds per acre is about twice that of the average yield in Alabama and Georgia, and that an increased yield is the most certain method of lowering the cost of production and increasing the profit.

#### RESULTS FROM SEVEN YEARS TEST FARM WORK.

Test Farms have been operated at fifty-four different points for periods of from one to seven years. In the aggregate this equals a single year's operation of 148 farms, with a total of 5,410 acres; and the average net profit from each of these acres amounts to \$23.32.

Below is a summary of the total figures for seven years:

Total value of the crop.....			\$236,088.82
Cost of Crop:			
Man Labor .....	\$ 22,859.73		
Horse Labor .....	14,711.61		
Fertilizer .....	21,695.10		
Harvesting .....	17,944.54		
Seed .....	6,985.46		
Marketing .....	6,029.96		
			\$ 90,226.40
Income:			
Rent .....	\$ 19,697.07		
Net Profit .....	126,165.35	\$145,862.42	
			\$236,088.82
			\$236,088.82

The total value of the crop, \$236,088.82, paid all expenses for fertilizer, seed, marketing and ginning, etc., amounting to \$34,710.52; also \$55,515.88 covering all labor for preparation, cultivation and harvesting of the crop plus \$19,697.07 rent on the land at an average of \$3.64 an acre; and left the Test Farmers a net profit of \$126,165.35.

Dividing this net profit by 5,410 (the number of acres in cultivation) the average net profit is \$23.32 which is 60% of \$38.77, the average value of the land per acre.

Adding rent to the profit, the total income from the farms, after deducting the total cost of all expenses and all labor in making the crop, is \$145,862.42, or an average income of \$26.96 which equals 70% of the value of the land.

The following statement gives the names and locations of the farmers who made the greatest net profits in each of the seven years' operations:

#### LIST OF FARMERS WHO MADE THE GREATEST NET PROFIT FOR EACH YEAR.

Year	Name	Location	County	Profit Per Acre
1912	J. F. Coeke.....	No. 9 Dawson, Ga. ....	Terrell .....	\$ 18.78
1913	R. E. L. Mount .....	No. 1 Goshen, Ala. ....	Pike .....	26.92
1914	H. C. Glover .....	No. 29 Newnan, Ga. ....	Coweta .....	25.65
1915	C. H. Stanley.....	No. 16 Tennille, Ga. ....	Washington .....	38.69
1916	J. L. Benton .....	No. 5 Monticello, Ga. ....	Jasper .....	81.53
1917	R. E. L. Walters .....	No. 28 Ellaville, Ga. ....	Schley .....	118.57
1918	J. L. Gantt .....	No. 10 Gantt, Ala. ....	Covington .....	81.24

\* See paragraph on "Cost Figures" on page 3.

**COMPARATIVE RESULTS OF TEST FARMS DURING THE SEVEN YEARS WORK**

	1912	1913	1914	1915	1916	1917	1918	Total
Number of farms operated	10	11	29	27	28	26	17	148
Number of acres cultivated	337	396	1,135	1,031	991	935	581	5,410
Net Profit	\$ 3,310.93	\$ 7,335.48	\$12,502.58	\$16,428.39	\$21,218.97	\$38,985.60	\$26,383.40	\$126,165.35
Rent	990.00	1,447.25	3,629.30	3,673.25	3,577.77	3,755.75	2,623.75	19,697.07
Total income	\$ 4,300.93	\$ 8,782.73	\$16,131.88	\$20,101.64	\$24,796.74	\$42,741.35	\$29,007.15	\$145,862.42
Total cost of making crop	7,481.81	8,150.82	19,148.61	15,361.51	13,992.23	14,451.53	11,639.89	90,226.40
Total value of crop	\$11,782.74	\$16,933.55	\$35,280.49	\$35,463.15	\$38,788.97	\$57,192.88	\$40,647.04	\$236,088.82
Average net profit per acre	\$ 9.82	\$ 18.50	\$ 11.01	\$ 15.93	\$ 21.39	\$ 41.66	\$ 45.35	\$ 23.32
Average rent per acre	2.93	3.65	3.20	3.56	3.61	4.01	4.51	3.64
Average income per acre	\$ 12.75	\$ 22.15	\$ 14.21	\$ 19.49	\$ 25.00	\$ 45.67	\$ 49.86	\$ 26.96
Average cost of crop per acre	22.20	20.56	16.86	14.89	14.11	15.44	20.01	16.68
Average value of crop per acre	\$ 34.95	\$ 42.71	\$ 31.07	\$ 34.38	\$ 39.11	\$ 61.11	\$ 69.87	\$ 43.64
Value of land cultivated as Test Farms	\$ 9,200.00	\$10,995.00	\$40,401.00	\$41,537.00	\$37,632.00	\$41,689.25	\$28,313.75	\$209,786.00
Average value of land per acre	27.30	27.73	35.58	40.27	37.94	44.55	48.67	38.77
Percentage of net profit on value of land	36%	67%	31%	40%	57%	94%	93%	60%
Percentage of income on value of land— net profit plus rent	46%	80%	40%	48%	66%	103%	102%	70%

**SUMMARY OF COSTS, VALUES, AND PROFITS.**

As the seven years covered by the Test Farm work from 1912 to 1918 included good crop years, poor crop years, and normal crop years; also years of low prices and of high prices; and as the Test Farms were located at points ranging from Northern Georgia to Southern Georgia, Eastern Georgia to Middle Alabama, from the Coastal Plain section to the Piedmont section, and included most of the soil types known, from sand to heavy clay, it would seem that figures for the different crops should be of interest.

A condensed summary showing the costs and value of crops grown has been prepared under the four divisions of (1) cotton; (2) corn, with inter-row or following crops; (3) grain, with following crops; and (4) other miscellaneous crops. Also summary showing figures for many of the miscellaneous crops and those planted between the corn rows or following the grain crops.



CONDENSED SUMMARY OF COSTS AND VALUE OF CROPS GROWN.

COMMODITY	Acres	Second Crop Acreage	Man Labor	Horse Labor	Seed	Fertilizer	Harvesting	Marketing	Rent	Total Cost	Value	Profit
Cotton	1,878 1/3		\$11,613.01	\$ 6,354.51	\$1,560.25	\$10,504.56	\$ 8,747.25	\$3,535.17	\$ 7,360.33	\$ 49,675.08	\$ 97,515.29	\$ 47,840.21
Cotton seed								280.25		280.25	22,465.99	22,185.74
Corn	2,075 1/8		6,794.35	4,990.42	347.80	6,761.25	2,584.10	126.05	7,056.13	28,640.10	47,559.15	18,919.05
Extra crops on the corn land		1,889 7/12	178.43	98.09	526.59	59.50	1,801.85	289.10	219.00	2,972.56	11,981.44	9,008.88
Grain	1,180 5/6		1,668.41	1,776.47	2,090.21	3,156.97	1,831.30	900.50	3,684.09	15,107.95	24,715.19	9,607.24
Extra crops on the grain land		1,155 1/12	1,063.14	871.85	1,793.25	255.95	1,784.10	487.53	607.00	6,862.82	17,616.55	10,753.73
Other crops	275 3/4		1,542.39	620.27	878.68	956.87	1,195.94	400.04	790.52	6,384.71	14,235.21	7,850.50
Total	5,410 1/24		\$22,859.73	\$14,711.61	\$6,996.78	\$21,695.10	\$17,944.54	\$6,018.64	\$19,697.07	\$109,923.47	\$236,088.82	\$126,165.35

CORN AND ACCOMPANYING CROPS.

Summary of costs and value of the corn crop, and the crops grown between the corn rows, on the same land.

COMMODITY	Acres	Second Crop Acreage	Man Labor	Horse Labor	Seed	Fertilizer	Harvesting	Marketing	Rent	Total Cost	Value	Profit
Corn	2,075 1/8		\$ 6,794.35	\$ 4,990.42	\$ 347.80	\$ 6,761.25	\$ 2,584.10	\$ 126.05	\$ 7,056.13	\$ 28,640.10	\$ 47,559.15	\$ 18,919.05
Velvet Beans		814 1/3	70.51	36.87	145.05	31.50	1,179.84	177.15	81.00	1,721.92	6,284.49	4,562.57
Peanuts		328	98.76	57.17	143.29	18.00	71.00	12.20	138.00	538.42	3,156.85	2,618.43
Cow Peas		205	9.16	4.05	37.00	10.00	146.46	20.25		226.92	728.00	501.08
Fodder and Hay		542 1/4			1.25		404.55	79.50		485.30	1,812.10	1,326.80
Totals, extra crops		1,889 7/12	\$ 178.43	\$ 98.09	\$ 326.59	\$ 59.50	\$ 1,801.85	\$ 289.10	\$ 219.00	\$ 2,972.56	\$ 11,981.44	\$ 9,008.88
Total corn and extra crops	2,075 1/8		\$ 6,972.78	\$ 5,088.51	\$ 674.39	\$ 6,820.75	\$ 4,385.95	\$ 415.15	\$ 7,255.13	\$ 31,612.66	\$ 59,540.59	\$ 27,927.93

**CONDENSED SUMMARY OF COSTS AND VALUE OF CROPS GROWN—Continued**

**SMALL GRAIN AND FOLLOWING CROPS.**

Summary of costs and value of the grain crops and crops grown on the same land after the grain was harvested.

COMMODITY	Acres	Second Crop Acreage	Man Labor	Horse Labor	Seed	Fertilizer	Harvesting	Marketing	Rent	Total Cost	Value	Profit
Oats	1,041 5/6		\$ 1,501.79	\$ 1,597.72	\$1,846.71	\$ 2,819.49	\$ 1,634.92	\$ 746.00	\$ 3,204.84	\$ 13,351.47	\$ 21,984.14	\$ 8,632.67
Wheat	102		133.53	135.78	184.00	337.48	146.48	133.75	384.25	1,455.27	2,071.05	615.78
Rye	37		33.09	42.97	59.50		49.90	20.75	95.00	301.21	660.00	358.79
Total Grain	1,180 5/6		\$ 1,668.41	\$ 1,776.47	\$2,090.21	\$ 3,156.97	\$ 1,831.30	\$ 900.50	\$ 3,684.09	\$ 15,107.95	\$ 24,715.19	\$ 9,607.24
Hay following Grain		986 1/3	856.60	753.46	1,696.70	119.78	1,732.05	480.53	575.00	6,214.12	16,088.55	9,874.43
Corn after winter killed Grain		126	97.05	76.67	57.55	106.82	31.45		30.00	399.54	722.50	322.96
Peanuts after Grain		24 3/4	85.41	29.13	29.00	9.10	12.00	7.00		171.64	570.00	398.36
Miscellaneous crops after Grain (Potatoes, Tobacco, Chufas and Velvet Beans)		18	24.08	12.59	10.00	20.25	8.60		2.00	77.52	235.50	157.98
Total of crops following Grain			\$ 1,063.14	\$ 871.85	\$1,793.25	\$ 255.95	\$ 1,784.10	\$ 487.53	\$ 607.00	\$ 6,862.82	\$ 17,616.55	\$ 10,753.73
Total of all Grain and following crops	1,180 5/6		2,731.55	2,648.32	3,883.46	3,412.92	3,615.40	1,388.03	4,291.09	21,970.77	42,331.74	20,360.97

**SPECIAL CROPS.**

Summary of costs and value of crops other than Cotton, Corn or Grain.

COMMODITY	Acres	Second Crop Acreage	Man Labor	Horse Labor	Seed	Fertilizer	Harvesting	Marketing	Rent	Total Cost	Value	Profit
Peanuts	99 1/2		\$ 417.94	\$ 248.13	\$ 122.55	\$ 163.12	\$ 223.30	\$ 30.37	\$ 306.00	\$ 1,516.41	\$ 3,232.90	\$ 1,716.49
Hay	55 1/4		54.42	51.24	92.65	39.50	103.64	54.25	153.14	548.84	1,099.00	550.16
Sweet Potatoes	40 3/4		458.87	134.98	187.13	300.32	291.00	63.20	104.50	1,540.00	3,548.85	2,008.85
Sugar Cane	15 3/8		117.89	62.04	317.50	107.45	340.40	25.80	48.13	1,019.21	2,454.48	1,435.27
Truck crops	13		34.55	20.25	75.50 (Poison)	161.75	18.50	96.00	41.00	447.55	970.00	522.45
Tobacco	9 1/8		331.40	57.53	7.40	85.00	60.00	114.02	32.50	667.85	1,548.84	880.99
Miscellaneous crops of small acreage	42 3/4		127.32	66.10	75.95	94.73	159.10	16.40	105.25	644.85	1,331.14	736.29
Total for special crops	275 3/4		\$ 1,542.39	\$ 620.27	\$ 878.68	\$ 956.37	\$ 1,195.94	\$ 400.04	\$ 790.52	\$ 6,384.71	\$ 14,235.21	\$ 7,850.50
Grand Total—All Crops	5,410 1/24		\$22,859.73	\$14,711.61	\$6,996.78	\$21,695.10	\$17,944.54	\$6,018.64	\$19,697.07	\$109,923.47	\$236,088.82	\$126,165.35



## COTTON.

The figures from cotton prove what a wonderful crop it is, and justify the preponderance of attention given it by our farmers. However, the fact that other staple crops can not show profits equal to those from cotton is no longer proof to the average farmer that he should grow nothing but cotton.

The total of 1,878 1/3 acres cultivated in cotton produced an average of 320 pounds of lint per acre at an average operating\* cost per acre of \$26.45 and showed an average profit per acre of \$25.47. The average operating\* cost per pound for making cotton during the seven-year period, under all sorts of conditions, was 8½, while the average price received per pound was 16.2c.

The above figures are for lint only, although the total net value of the cotton seed produced, amounting to \$22,185.74, is included in the total profits shown by the Test Farms,—a practice which was started in the first annual Test Farm report. While the soil robber would credit the value of this seed to the cotton, thereby increasing his profit from cotton nearly 50%; in most cases on the Test Farms the cotton seed was either traded for cotton seed meal to be used as fertilizer, or feed which ultimately became fertilizer; or the proceeds from the sale of seed were invested in some form of plant food to be returned to the soil. This return of the seed or its equivalent was a cardinal principle of the Test Farm work, for the man who sells his seed and makes no return for it to his land is simply selling the fertility or productive value of his farm in installments. Before the value of cotton seed was discovered, it was largely wasted, and this explains why our cotton lands grew poorer and poorer each year, for cotton is the most cleanly cultivated of the staple crops, and there was practically nothing returned to the soil in the form of humus or plant food from a crop of cotton.

## CORN.

When the figures for cotton are placed beside those for corn, corn makes a comparatively poor showing, but undoubtedly such comparison is hardly fair for the reason that cotton is the cash crop, the pet crop, and the one that is given the most attention. The value of the corn crop from 2,075 1/8 acres was \$22.92 per acre, and the cost per acre of making the corn was \$13.80, leaving a profit of \$9.12 an acre. In the mind's eye of the farmer, dollars can be seen growing when he looks at his cotton field, whereas the corn field represents only so much meal or feed, and it is only human nature to give cotton the first consideration. That cotton is the favored crop seems evident from the fact that the average cost per acre for fertilizing cotton was \$5.59, while only \$3.26 per acre was spent for fertilizing corn. Possibly if another dollar's worth of fertilizer per acre had been given to corn, the percentage of profit would be larger.

But the profit from the corn field is not confined to corn alone. The planting of cow peas between the corn rows has been practiced for years, and within the last two or three years the cow pea has been largely supplanted by the velvet bean as an inter-row crop. There have been many discussions as to how much reduction in yield of corn is caused by the planting of velvet beans, and while many contend that velvet beans in the field cause no reduction in the corn yield, it is generally agreed that the reduction, if any, is not worth considering, as compared with the value of the velvet beans. It will be noted that velvet beans were planted in 814 1/3 acres of the Test Farm corn and that the beans showed a profit of \$4,562.57, or an average of \$5.60 an acre. The value of the velvet bean as a nitrogen gatherer is so great that the practice of planting velvet beans in the corn field will likely become almost universal, and this means greater profits from the corn fields.

As corn is so seldom grown by itself, it is fair to give the corn fields credit for the extra crops grown with it, and on this basis, the cost of production per acre of everything grown in the corn field was \$15.23, the value per acre of the products was \$28.69, and the average profit per acre from the corn fields was \$13.46. These figures are reached by dividing by 2,075 1/8, the total acreage planted to corn, although the acreage on which an extra crop was planted totals only 1,889, and this contains duplications, as occasionally peanuts or cow peas were planted with velvet beans in alternate middles, in the same corn field.

## SMALL GRAIN.

While the small grains show an average profit per acre of only \$8.14, they were produced at an average cost of only \$12.79 an acre, and the second crops of hay, etc., planted after the grain was harvested, cost only \$5.94 an acre to produce, and yielded a profit of \$9.30. Therefore, the combination crop of small grain followed by hay shows an average profit per acre of \$17.24 at an average cost for production of only \$18.61. The labor cost per acre for making small grain and hay, including all man and horse labor for preparation, planting, fertilizing and harvesting is only \$7.61 an acre, while the labor cost for cotton is \$14.22.

## THE VALUE OF SUPPLY CROPS.

Corn and grains being feed crops, the farmer can better afford to grow them for home consumption than for market, for there is considerable difference between the prices received by the farmer for his feed crops, and the prices he must pay if he has to buy them. This difference between the selling and buying prices for feed crops proves the saying that "The farmer sells at wholesale, but buys at retail."

## SPECIAL CROPS.

On 275½ acres, special crops were produced. The miscellaneous item of 42½ acres, includes a few acres each of the following named crops: Soy bean hay, sorghum hay, table peas, Irish potatoes, rice, cucumbers, chufas, rape and melons. The average cost of production per acre of these special crops was \$23.15 and they made an average profit of \$28.47 an acre. The average profit from each acre in tobacco was \$96.55, the sugar cane made a profit of \$93.35 an acre and the sweet potatoes \$49.30.

\*See paragraph on "Cost Figures" on page 3.

### YIELDS.

It would be of considerable interest if figures could be included showing the average yield of the different crops grown on the Test Farms. Unfortunately the figures for each year's results were worked out on the basis of values and profits for the crops grown. The excuse for failure to compile exact figures as to the yields produced, is that aside from cotton and some of the special crops the entire product was either not sold, or was marketed in more than one form; for example, the oats were not thrashed in all cases, but were sold in the shock for hay, or were fed on the farm and their value reckoned in dollars and cents.

Aside from the 320 pounds of lint cotton per acre on the average, the only exact figures that can be given are for some of the special crops such as 131½ bushels of sweet potatoes per acre, 1,167 pounds of tobacco per acre and 214 gallons per acre of syrup from the sugar cane. The total number of velvet beans sold gives an average of 622 pounds per acre, but so many of the velvet beans were either grazed or only partially harvested, that based on individual instances, it is certain that the average production was better than a thousand pounds per acre.

### AVERAGES.

The following statement giving average figures of costs, values and profits per acre is designed for easy comparison of the costs of making the different crops with the profits therefrom. The cost of harvesting is added to the man and horse labor to get the total labor cost; while the total cost includes rent, seed and marketing, as well as fertilizer, with all labor costs.

#### AVERAGE PER ACRE FIGURES, ON PRINCIPAL CROPS.

(The relation of the profits per acre to the total costs per acre, are shown by figures in the right hand column.)

COMMODITY	Acres	Fert- ilizer	Man Labor	Horse Labor	Total Labor Including Harvesting	Total Cost	Value	Profits	Per Cent. of Profits Per Acre, Based on Total Cost Per Acre
All crops grown -----	5,410 1/24	\$ 4.01	\$ 4.23	\$ 2.72	\$10.27	\$ 20.32	\$ 43.64	\$ 23.32	115%
Cotton -----	1,878 1/3	5.59	6.18	3.38	14.22	26.45	51.92	25.47	96%
Corn -----	2,075 1/8	3.26	3.27	2.40	6.92	13.80	22.92	9.12	66%
Velvet Beans in Corn -----	814 1/3	.04	.09	.05	1.59	2.11	7.71	5.60	265%
All Corn and extra crops -----	2,075 1/8	3.29	3.36	2.45	7.92	15.23	28.69	13.46	88%
All small grain -----	1,180 5/6	2.67	1.41	1.50	4.46	12.79	20.93	8.14	64%
Hay following grain -----	986 1/3	.12	.87	.76	3.39	6.30	16.31	10.01	159%
All crops following grain -----	1,155 1/12	.22	.92	.75	3.21	5.94	15.24	9.30	157%
All grains and following crops -----	1,180 5/6	2.89	2.31	2.24	7.61	18.61	35.85	17.24	93%
Peanuts -----	99 1/2	1.69	4.20	2.49	8.93	15.24	32.49	17.25	113%
Sweet Potatoes -----	40 3/4	7.37	11.26	3.31	21.71	37.79	87.09	49.30	130%
Tobacco -----	9 1/8	9.32	36.32	4.11	47.01	73.19	169.74	96.55	132%
Sugar Cane -----	15 3/8	6.99	7.67	4.04	33.85	66.29	159.64	93.35	141%
All special crops -----	275 3/4	3.47	5.59	2.25	12.18	23.15	51.62	28.47	123%

With higher labor costs a certainty in the future, it seems proper to consider the profits obtainable from the different crops on the basis of a comparison of the profits per acre with the cost per acre. The purpose is not to disparage cotton as a remunerative crop, but simply to show that when the cost of making is considered, other crops are nearly as profitable as cotton. For example, the figures in the right hand column of above statement show that the profit from cotton equalled 96% of the cost of making cotton; profit from corn and the additional crops planted in the corn field was 88% of the cost of making these crops; while the profit from small grains and the crops following such grains equalled 93% of the cost of making these combination crops.

The special crops showed an average profit which equalled 123% of the cost for making them, but with the exception of peanuts, these crops are grown on a comparatively small acreage. The figures for velvet beans are included in the statement because this wonderful crop can be so cheaply produced, and shows such an amazing percentage of profit when compared with cost. Of course, with a between-row crop like this, there is chance for argument as to whether the proper proportion of cultivation and fertilizer costs have been charged to it, but even though some of the profit shown by velvet beans is at the expense of the corn profits, the value of velvet beans can not be denied from a dollar and cents point of view, to say nothing of the value of the humus and nitrogen which they add to the soil.

The labor cost for producing cotton is higher than that of any of the staple crops and this applies not only to preparation and cultivation, as shown in the man and horse labor columns, but to the total labor cost when the harvesting cost is included. Present conditions of largely increased costs for man labor are likely to prove as convincing an argument for diversification as the boll weevil can offer.

The boll weevil has frequently been called "A blessing in disguise." It is unsafe, however, to call him this in a section which is suffering from its first serious boll weevil damage. Also, it would not increase one's popularity with most farmers to tell them now that the increased cost of labor is a good thing. But, really, there can be no doubt but higher labor costs must result in greater interest in crops which may be produced with less man labor than cotton. King Cotton must become servant instead of master. Cotton will always remain our chief crop, but we shall no longer be entirely dependent upon it.

The prospect is brighter now than ever before for the establishment of a complete system of agriculture—diversified crops properly rotated, with live stock raising as a foundation—a system upon which the prosperity of every continuously successful agricultural section is based. Then the failure or low price of one crop will not bring hard times, and it will no longer be feast or famine with us, as so frequently in the past.

Yours truly,

J. F. JACKSON,  
Agricultural Agent.



**THE MEN WHO DID THE WORK.**  
List of Test Farm Owners and Operators.

Farm No.	Location	Owner	Operator	Year
1.	Goshen, Ala.	R. E. L. Mount	R. E. L. Mount	1912-13-14-15-16-17-18
2.	Guerryton, Ala.	J. E. Duffey	J. E. Duffey	1917
2.	Lockhart, Ala.	Jackson Lumber Co.	Alex. McRae and J. H. Matthews	1912-13-14
2.	Thompson, Ala.	Haynes Bros.	C. H. Haynes	1916
3.	Hartford, Ala.	J. C. Holman	D. B. Hollis	1912
3.	Slocomb, Ala.	J. A. Davis	J. A. Davis	1914
3.	Coffee Springs, Ala.	B. J. Austin	E. Adams and Gus Stokes	1915-16
4.	Meda, Ga.	A. S. Edmondson	A. S. Edmondson	1912-13-14
4.	Meldrim, Ga.	J. M. Connelly	J. M. Connelly	1915-16-17-18
5.	Monticello, Ga.	J. L. Benton	J. L. Benton	1912-13-14-15-16
6.	Leary, Ga.	O'Neal & Willingham	W. C. Kemper and J. A. Reeves	1912-13-14
6.	Metter, Ga.	H. V. Trapnell	H. V. Trapnell	1917-18
7.	Rome, Ga.	W. H. Partee	W. H. Partee	1912-13-14-15
7.	LaFayette, Ga.	T. E. Chapman	T. E. Chapman	1916-17
8.	Ogeechee, Ga.	B. Burns	B. Burns	1913-14-15-16
9.	Baneroft, Ga.	J. D. Pou	H. A. Ellis	1916
9.	Dawson, Ga.	J. F. Cocke	F. W. Forth, C. D. McGrath and H. J. Randall	1912-13
9.	Blakely, Ga.	J. W. Bridges	J. W. Bridges	1915
10.	Sterretts, Ala.	Bham. Acreage Co.	A. J. Newell	1912-13
10.	Motts, Ala.	I. Meadows	I. Meadows	1914-15
10.	Gantt, Ala.	J. L. Gantt	J. L. Gantt	1917-18
11.	Toombsboro, Ga.	W. I. Dixon	W. I. Dixon	1912-13-14-15-16-17-18
12.	Jonesboro, Ga.	P. B. Fife	P. B. Fife	1913-14-15-16
13.	Dothan, Ala.	T. W. Dawsey	T. W. Dawsey	1915-16-17-18
14.	Forrester, Ga.	Z. R. Pettit	Z. R. Pettit	1914
14.	Buena Vista, Ga.	T. N. Williams	T. N. Williams	1917
15.	Milner, Ga.	C. F. Griffith	C. F. Griffith and O. W. Wadsworth	1914-15-16
16.	Tennille, Ga.	C. H. Stanley	C. H. Stanley	1914-15-16
17.	Ft. Valley, Ga.	W. H. Jones	W. H. Jones	1914-15
17.	Bronwood, Ga.	E. H. Stapleton	E. H. Stapleton	1916-17-18
18.	Hampton, Ga.	W. A. Wilson	W. A. Wilson	1914-15-16
18.	Carrollton, Ga.	W. A. Garrett	W. H. Smith	1917-18
19.	Bremen, Ga.	W. H. Bush	W. H. Bush	1914-15-16-17-18
20.	Georgetown, Ga.	H. Lampley	H. C. Poindexter	1914-15
21.	Madison, Ga.	J. H. Gaissert	J. H. Gaissert	1914-15-16-17-18
22.	Bishop, Ga.	W. A. Norville	W. A. Norville	1914-15-16-17-18
23.	Chipley, Ga.	H. Magruder	H. Magruder	1914-15-16-17-18
24.	Pike Road, Ala.	Mrs. F. M. Lyle	L. W. Carter	1914-15
24.	Danway, Ala.	H. M. Smith	W. C. McLean, J. H. Glawson	1916-18
25.	Griffin, Ga. (Pomona.)	J. D. Cox	J. D. Cox	1914-15-16-17-18
26.	Comer, Ala.	J. L. Houston	J. L. Houston	1914-15-16-17
27.	Greenville, Ga.	L. H. McLaughlin	L. H. McLaughlin	1914-15-16-17-18
28.	Round Oak, Ga.	J. T. Williams	J. T. Williams	1914-15
28.	Ellaville, Ga.	R. E. L. Waters	R. E. L. Waters	1917
29.	Newnan, Ga.	H. C. Glover	H. C. Glover	1914
30.	Americus, Ga.	J. L. Glawson	J. L. Glawson	1914-15-16
30.	Newborn, Ga.	D. W. Loyd	D. W. Loyd	1917
31.	Shellman, Ga.	O. Z. Dean, Jr.	O. Z. Dean, Jr.	1914-15-16-17
32.	Childersburg, Ala.	L. W. Johnston	L. W. Johnston	1917
33.	Goodwater, Ala.	N. L. Neighbors	N. L. Neighbors	1917-18
34.	Jacksons Gap, Ala.	W. L. Duffy	O. L. Duffy	1917-18

**FARMS ON WRIGHTSVILLE & TENNILLE R. R.**

Farm No.	Location	Owner	Operator	Year
1.	Meadow, Ga.	W. D. Sumner	W. D. Sumner	1916
2.	Chester, Ga.	G. G. McDaniel	G. G. McDaniel	1916-17
3.	Rentz, Ga.	Phelps & Rice	H. C. Grant	1916-17

### THE MEN WHO SUPERVISED THE WORK.

Credit is due the Agriculturists employed by the Central of Georgia Railway Company, who supervised the Test Farm work, visiting the farms periodically, inspecting the work and advising the farmers how to apply the instructions given by the Agricultural Colleges.

Mr. T. G. Chastain was the first Agriculturist, and the man who started the work. He was in the service from October 1, 1911, until August 15, 1915. He is now Southeastern Representative for the American Shorthorn Breeders' Association, and also represents the Barrett Co., with headquarters at Atlanta, Ga.

Mr. J. A. Winslow has been in the service since December 1, 1913.

Mr. W. T. Bennett was in the service from February 1, 1914, until August 31, 1918. He is now County Demonstration Agent for Spalding County with headquarters at Griffin, Georgia.

Mr. J. G. Liddell was in the service from August 11, 1915, until December 15, 1917. He is now County Demonstration Agent for Bulloch County with headquarters at Statesboro, Georgia.

Mr. M. H. Pearson was in the service from September 1, 1916, until August 31, 1917. He is now with the Extension Forces in Alabama as Assistant in Agriculture with the Alabama Polytechnic Institute.

Mr. J. F. Bazemore entered the service September 1, 1917, and on June 15, 1918, enlisted in the Marine Corps and served with the Second Division through the campaign of the Argonne. He is now with the Army of Occupation in Germany, and will take up his work again so soon as he returns to the United States.

Mr. G. E. McWhorter has been in the service since January 1, 1918, with the exception of the period from August 16, 1918, to December 31, 1918, spent in Army training Camps in Florida and Connecticut.

Mr. John H. Phillips has been in the service since July 15, 1918.



# CENTRAL OF GEORGIA RAILWAY

## AGRICULTURAL DEVELOPMENT WORK.

The prosperity of a railroad is largely dependent upon the prosperity of the farmers in the territory it serves. Therefore, the management of the Central of Georgia Railway Company feels it is to the Company's interest to encourage the use of the best and most profitable farming methods, by bringing to the notice of its farmer patrons as convincing evidence as possible of the fact that it pays to use such methods. This is one reason for the existence of the Railway's Agricultural Department, some of the activities of which are mentioned below:

Four Agriculturists are employed, whose duty it is to give advice and help to farmers, encourage them to try new methods and raise more live stock, select and ship in carloads of pure-bred animals for those who wish to raise better cattle or horses, and generally assist in every movement for better farming in the territory assigned to them; the division of territory being approximately as follows: Mr. J. A. Winslow, at Cuthbert, Ga., lines south and west of Americus to Andalusia and Lockhart, Ala.; Mr. J. F. Bazemore, at Griffin, Ga., lines north of Macon, Ga.; Mr. G. E. McWhorter, at Milledgeville, Ga., lines east of Macon, Ga.; Mr. John H. Phillips, at Columbus, Ga., lines west of Macon to Birmingham and Montgomery.

### TEST FARMS.

For seven years Test Farms were operated at points along the right of way of the Central of Georgia Railway. This pamphlet gives a report on the results of operation of seventeen farms in 1918, and a summary of results from all farms operated during the entire seven years.

The purpose of these farms was to make a practical, visible "test" of the methods urged by the State Agricultural Colleges, for the benefit of the farmers in the territory served by the Central of Georgia Railway. The plan was to make as much money as possible, by using the most approved methods, and at the same time add to the fertility of the soil by the use of winter cover crops and a proper diversification and rotation of crops.

From ten to twenty-nine farms were operated in the different years, equalling 148 farms for one year, with a total of 5,410 acres. The average size of the farms operated was about 36½ acres, the original plan being to take some old style one-horse cotton farms of approximately forty acres and demonstrate the advantages of properly diversified and rotated crops with a sufficient amount of horse labor.

It is believed that the figures contained in this pamphlet, very fairly represent the possibilities of our Southern soils. The report shows the total figures and the average figures per acre, but does not show the figures per farm. As 36½ acres is a rather small farm, and the total 5,410 acres cultivated in the Test Farm work would be equal to ninety farms of a trifle more than sixty acres in size, ninety was used as a divisor; and on this basis the average farmer of this section might reasonably expect to produce from sixty acres, with approximately twenty-one acres in cotton, twenty-three acres in corn with inter-row crops, thirteen acres in grain followed by hay, and three acres of other miscellaneous crops, a crop worth \$2,623.21, although the value of the land cultivated is only \$2,330.76. This crop would give Mr. Average Farmer a net profit of \$1,401.84 after deducting the total cost of production amounting to \$1,221.37. This total cost includes \$218.86 as rent on the land which might properly be added to the net profit, making the total income from the land \$1,620.70. It includes \$616.84 as compensation for the labor expended by Mr. Average Farmer in making the crop, and this labor cost is divided into \$254.00 for man labor and \$163.46 for horse labor in preparation, sowing, fertilizing and cultivating the crop, while \$199.38 covers the labor cost, both for man and horse, in harvesting the crop. It also includes \$383.67 to repay the expense incurred by Mr. Average Farmer to the amount of \$241.06 for fertilizer, \$77.74 for seed and \$66.87 for marketing expense.

### PRIZES FOR BOYS' CLUB CONTESTS.

The management of the Central of Georgia Railway Company believes that the Boys' Club work has resulted in an increased production of corn and an increase in the use of the best farming methods which has added greatly to the prosperity of the South. For eight years the Central of Georgia offered prizes to encourage the Boys' Club work in the territory served by its lines. In 1911, 1912 and 1913 the prizes were for Corn Club contests, in 1914, 1915 and 1916 for Four-Crop Club contests, and in 1917 and 1918 for Calf Club contests. The prizes during these eight years were two mules and six Percheron mares as State prizes, and for county contests, fifty-three cash prizes of \$25 each; forty-one scholarships, worth \$25 each, for the Short Course at the Georgia State College of Agriculture; 137 registered Berkshire boars, costing \$25 each, and 202 registered Shorthorn bulls, costing \$125 to \$150 each. The total cost of these prizes was \$37,432.

### CALF CLUBS.

The contestants in the Calf Club contests of 1917 and 1918, were required to feed and care for a calf for a period of 120 days and got results which amply prove the value of the Calf Club idea. They not only made fine gains with their calves, but learned so much about stock feeding that they are well started toward becoming real stock raisers; and our section needs better stockmen as well as better stock.

### BETTER CATTLE.

The Corn Clubs and Four Crop Clubs aroused interest in better methods of diversified farming; but the Calf Clubs, and particularly the importation of Shorthorn bulls given as prizes and the loaning of these bulls under certain restrictions to farmers in Central of Georgia territory, greatly stimulated the interest in raising better cattle.

The giving of bulls as prizes ended with 1918, but early in 1919 thirty registered beef bulls were purchased in Iowa by the Central's Agricultural Agent and loaned on recommendation of County Demonstration Agents to the farmers in their counties who were considered the best equipped to care for and use these bulls to advantage.

When the first lot of Shorthorns was imported by the Central of Georgia Railway in May, 1914, there were practically no registered animals of that breed to be found in the territory served by the Central of Georgia, but in May, 1919, there were more than 2,300 pure-bred Shorthorns in that territory, about a third of these having been personally selected in Kentucky, Missouri, Ohio, Indiana, Illinois and Iowa and shipped to Alabama or Georgia by representatives of the Central's Agricultural Department.

Due largely to low-priced cotton, but few orders were received during the fall of 1918 for pure-bred cattle to be purchased for farmer patrons, but it is expected there will be a heavy importation of such cattle during the fall and winter of 1919.

### PRINTED MATTER.

In addition to Reports on the Test Farm work for 1914, 1915, 1916 and 1917, pamphlets have been issued for free distribution on the subjects of the Boll Weevil; Cattle Tick; Better Beef Cattle; Useful, Practical Facts about Live Stock; Peanuts for Profit; Soy Beans for the South, and How to Grow Bright Leaf Tobacco. Anyone desiring copies of the pamphlets named, or information regarding any branch of the work of the Agricultural Department, should address the office at Savannah.

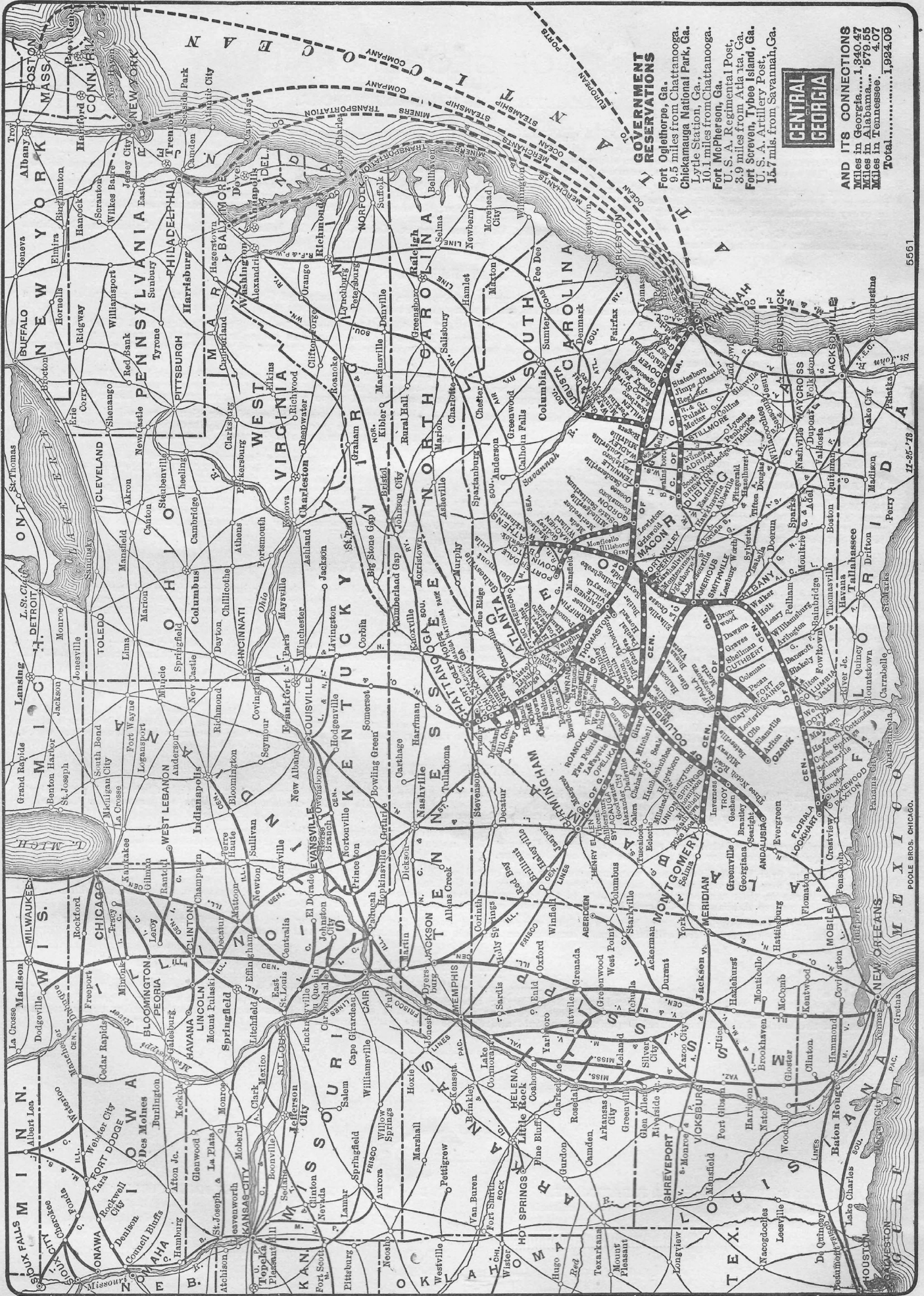
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Agriculturist,  
Milledgeville, Ga.

JOHN H. PHILLIPS,  
Agriculturist,  
Columbus, Ga.



**GOVERNMENT RESERVATIONS**

Fort Oglethorpe, Ga. 9.5 miles from Chattanooga.

Chickamauga National Park, Ga. 10.1 miles from Chattanooga.

Fort McPherson, Ga.

U. S. A. Regimental Post, 3.9 miles from Atlanta, Ga.

Fort Screven, Tybee Island, Ga.

U. S. A. Artillery Post, 15.7 mls. from Savannah, Ga.

**CENTRAL GEORGIA**

**AND ITS CONNECTIONS**

Miles in Georgia... 1,340.47

Miles in Alabama... 579.55

Miles in Tennessee... 4.07

**Total..... 1,924.09**