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# THE UNIVERSITY OF NORTH CAROLINA NEWS LETTER

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## NORTH CAROLINA CLUB STUDIES

### THE ORANGE SOIL SURVEY

The Orange County Soil Survey will soon begin. It will be made by Messrs. Hardison and Brinkley who are now finishing up their work in Halifax county. These surveys are directed by Dr. B. W. Kilgore, director of the Federal Experiment Station in Raleigh.

This will be the last of a series of economic and social surveys made in Orange beginning in the spring of 1915, as follows: (1) A Sanitation Survey by the U. S. Public Health Service and the State Health Board, (2) A Farm Home Survey, (3) A School Survey, (4) A Church and Sunday School Survey by the University in cooperation with the Federal Office of Markets and Rural Organization and, (5) A Farm Practice Survey by the University in cooperation with the Federal Farm Demonstration Office.

A bulletin on Orange county: Economic and Social will be based on these six surveys. It will be ready for issue as soon as the last two survey results are available.

### TRAINED AT THE UNIVERSITY

The soil survey of Orange county is in charge of R. B. Hardison of Anson, A. B., class of '07, on the part of the United States Government, and L. L. Brinkley, class of '07, of Wilson, on the part of the State.

In the Federal Soil Survey three of the five inspectors for the entire United States received their training in laboratory and field work, under Professor Collier Cobb. These are W. E. Hearne, B. S., 1900, of Chapel Hill, T. D. Rice, Ph. B. 1900, of Florida, H. H. Bennett, B. S. 1903, of Wadesboro.

A large proportion of all the men now working in the Soil Surveys of the Federal Government are Carolina men.

### DOCTOR MANGUM IN STANLY

Dr. Charles Staples Mangum of the University medical faculty has offered his services to the State Board of Health in the anti-typhoid fever campaign in North Carolina and in a few days goes to Albemarle to direct the work through the month of August.

Doctor Mangum has just closed his summer school engagement at the University, following the year's work with a summer course that kept him busy another six weeks. For his vacation he has planned still harder work. He will go to Albemarle to aid Stanley county in stamping out typhoid through the vaccination campaign and the end of this engagement will find him at the beginning of another school year.

This is but another phase of the University Extension work, an activity in another direction which is making the institution more and more powerful. It has taken an active part in the moonlight school movement. It is behind the post-graduate medical course now being given in 12 towns in North Carolina and is joining hands with the State Board of Health in fighting disease. Dr. Ed Graham's administration is indubitably turning up things. —Greensboro News.

### NORTH CAROLINA LEADS THE SOUTH IN INDUSTRIAL DEVELOPMENT

The Federal Census of Industries shows North Carolina ahead or nearly so in so many particulars in 1914 that a bird's-eye view of the thirteen southern states is inspiring.

In manufacturing industries North Carolina is, all told, the best developed state in the whole South. If you are in doubt about it, look at the facts.

North Carolina leads the South (1) in the average number of wage earners, 136,844, (2) in the primary horse-powers employed, 508,235, (3) in the total amount of wages paid, \$46,038,000, (4) in value added by the processes of manufacture, \$119,470,000, and, (5) in the per cent of increased value due to manufacture, 26 per cent.

The number of manufacturing establishments was 5,507. Only Virginia had more—and only one more!

Our capital invested was \$253,842,000. Georgia, Louisiana, and Texas were each a little ahead of us in the amount of capital employed.

tal employed.

But the value of our mill and factory products was \$289,412,000, and we were ahead of Virginia in this particular by \$25,000,000, Louisiana by \$33,000,000, Georgia by \$36,000,000, Kentucky by \$59,000,000, Tennessee by \$77,000,000, Alabama by \$113,000,000, and South Carolina by \$150,000,000. We were behind Texas alone, big as she is, by only \$71,000,000. We were too far ahead of the other Southern states to bother with comparisons.

### Gains in Every Particular

The total value of our manufactured products increased \$72,551,000 between 1909 and 1914. Here is an increase of 33.6 per cent; in which particular we outstripped every other Southern state except Oklahoma which is just beginning a vigorous industrial development. Her output is small but her per cent of gain is large.

The value added in the processes of manufacture in North Carolina was \$119,470,000; in which particular we outstripped every other state in the South.

Our five year increase in the number of industrial establishments was 11.7 per cent. Virginia, Kentucky, Georgia, and Mississippi suffered a decrease both in the number of establishments and of wage earners. Alabama decreased in the number of establishments, while South Carolina and Florida decreased in the number of wage earners during this five-year period.

### OUR INDUSTRIAL LEADERSHIP

North Carolina leads the South in the number of textile mills, in the amount of raw cotton consumed, in variety of cotton mill products, and in the total value of cotton goods produced.

North Carolina leads the South in furniture manufacture and in other timber working industries. And she leads the whole United States in the manufacture of chewing and smoking tobacco.

The leading industries of North Carolina are based on her own home-produced materials—cotton, tobacco, and timber. She consumes in her own mills all the cotton she produces from year to year, and more. Her tobacco factories are seated in the center of great tobacco growing areas. Her furniture factories use more wood than any other state in the Union, but it comes mainly out of her own forests, at a cost less than the average in ten of the great furniture making states, and \$7 per thousand feet less than the average for the country at large.

North Carolina leads the South in the average number of wage earners in her mills and factories. The number in 1914 was 136,844, the only other southern states having more than a hundred thousand operatives were Georgia with 104,000 and Virginia with 102,000.

Prosperity in North Carolina does not consist in the annual production of crude wealth alone—crops, livestock, livestock products, minerals, timber, and the like. No state that is occupied in producing raw materials merely or mainly has the largest chance to accumulate wealth in large totals.

But North Carolina takes a hundred and sixty-nine million dollars worth of cotton, tobacco, and timber, her own products mainly, and increases their value by one hundred and nineteen million dollars in the processes of manufacture in her own mills and factories.

In this particular she outranks every other Southern state, Texas included, big as she is.

### WONDERFUL EXPANSION

North Carolina shows gains in almost every particular. In the ten-year period from 1904 to 1914 our bakeries increased from 34 to 66; brick, tile, and pottery works from 107 to 139; carriage and wagon factories from 125 to 137; car and general construction shops, from 11 to 16; cotton mills from 212 to 293; flour and grist mills from 234 to 293; hosiery and knitting mills from 40 to 74; cotton-seed oil mills from 43 to 62; mattress and spring bed factories from 9 to 29; foundry and machine shops from 70 to 136; marble and stone works from 22 to 64; fertilizer factories from 27 to 41; and our lumber and timber establishments from

### ONCE-A-MONTH SERMONS

Dr. Archibald Johnson

Once a month preaching is the next thing to no preaching at all. The fact that under the present plan of twelve Sunday services a year, and no pastoral work at all, our country churches have survived, proves that they were divinely established. No worldly enterprise could live for six months in the slipshod and stupid way we manage our churches.

It is by the foolishness of preaching that men are to be saved, and multiplied millions have seen the light through the once a month service; but how much we have lost in opportunity and in the joy of service, and how many other millions we have allowed to perish because we slept when we should have been at work, the Lord alone knows.

Our churches in the country are our plant beds and from them we have drawn our leaders in all lines of service. With the meagre and pitiful means of growth and power these churches have enjoyed, they have managed somehow to produce the men who have moved the world! What a mighty contribution they could have made to mankind if they had been half way managed!

1,364 to 2,652. Miscellaneous factories increased from 288 to 441.

We have fewer agricultural implement works, and fewer tobacco factories, but around twice the tobacco in both cases. Also fewer woolen and worsted mills but a larger production. Boot and shoe, turpentine and rosin manufacture seem to be about the only dwindling industries in the state.

Our cotton goods increased from \$47,254,000 to \$90,744,000; hosiery and other knit goods from \$2,484,000 to \$8,892,000; tobacco factory products from \$28,088,000 to \$57,861,000; lumber and timber mill products from \$19,489,000 to \$39,632,000; cotton-seed oil mill products from \$3,749,000 to \$15,269,000; and our fertilizers from \$3,099,000 to \$10,308,000.

The figures of the foregoing items on North Carolina industries are based on the 1914 Federal Census, put at our disposal by the Census Director, Mr. Sam L. Rogers.

### LESS LAND BETTER CULTIVATED

Almost every day we run upon the opinion that what the South needs most is smaller farms better cultivated. In this issue Mr. S. H. DeVault presents a table that throws light on this subject.

In trying to puzzle out the causes for the small per capita country wealth in farm properties in North Carolina and other cotton-belt states, we have come to conclude that what we need is not smaller farms but larger farms—larger farms better equipped with improved machinery, and better stocked with farm animals; with larger operating capital, and better organization for producing and marketing farm products with fair advantage.

### Cultivated Acres Per Farm Worker

A farm worker in North Carolina in 1910 cultivated upon an average only 14.5 acres; but in Kansas, Nebraska, South and North Dakota the averages ranged from 109 to 156 acres per farm worker.

Our farm workers produced crop values averaging only \$236 each, while in the states named, the crop values produced ranged from \$783 in Kansas to \$1,378 in North Dakota.

We produced large values per acre; they produced large values per worker. Their farms are large, they have more kinds, and more improved farm machinery per farm. They economize labor (1) by distributing it more equably throughout the year, and (2) by re-enforcing human power with horse and machine power.

Our farms are too small in average size, and cotton and tobacco crops are

## UNIVERSITY SCHOOL OF EDUCATION

LETTER SERIES NO. 86

### THE BIENNIAL TEST

#### Low Salaries

Teachers are the best praised people in the world, and they are the poorest paid people in the world. That they are the poorest paid people who work for the public has been said so many times that saying it again has little effect.

That they are the best praised is known by all who have listened to any non-teacher speaker at educational meetings. Only the other day at a great educational meeting a non-teacher speaker declared with great energy that he hoped to live to see the day when teachers should be well-paid for their great work with the children of the land. This kind of talk sounds mighty good but it always ends with the saying of it so far as practical results are concerned.

#### Something Worse

Low salaries are bad enough but there is something worse and it ought to be remedied and remedied at once. It ought to be referred to time and again in the press and in public speech until the people do the fair and just thing by the

faithful teachers in our school. Nothing does more to nag, to discourage, and to humiliate our teachers than the fact that every other year they are hauled up before the county superintendent or some other examining person and re-examined as teachers, and this too in spite of the fact that his work with them as superintendent has given him more information as to fitness than any examination can give.

#### Profitless Examinations

A study of the records will show that precious little is accomplished by these biennial examinations so far as raising the standard of scholarship is concerned. The prevailing low salaries do not attract and will never attract many of the best educated men and women into the teacher's profession, and too often the teachers of the year before have to be retained regardless of how they show up in the hurried examination.

#### Humiliating Torture

Why humiliate our teachers by subjecting them to this biennial examination? Can't something be done to place teaching on a plane with the other professions? Who stands in the way?

made with simple hand tools for the most part. These crops yield the largest average values per acre, but the labor cost of production leaves too small a margin of profit and reduces to a minimum the chance to save and accumulate farm wealth.

As a result the per capita country wealth in farm properties in the South ranges from \$231 in Alabama to \$830 in Oklahoma; against \$2,111 in Kansas and \$3,386 in Iowa.

### Averages in the United States

The average number of acres cultivated per farm worker in the United States ranges from 11.9 acres in South Carolina to 156.2 in North Dakota. In North Carolina our average was 14.5 acres and rank 45th.

In only three states was the average smaller than in North Carolina: in Rhode Island which has less farm land in cultivation and fewer farm workers than Wake or Robeson county; Mississippi, which has 673,000 farm workers on 9,000,000 cultivated acres; and South Carolina 511,000 farm workers on 6,000,000 improved acres.

With 354,000 farm workers, Iowa cultivates three times as much land as Mississippi, and nearly five times as much land as South Carolina.

In general the smaller the average of cultivated acres per worker, the smaller the per capita production of crop values, and the smaller the per capita accumulation of wealth.

### Averages in North Carolina

The acres cultivated per farm worker in North Carolina in 1910 ranged from nine-tenths of an acre in Dare to 36.2 acres in Alleghany. But notice also that

the per capita country wealth in farm properties ranges from \$47 in Dare, the lowest in the state, to \$566 in Alleghany, the highest in the state. Here also the larger the per capita acreage the greater the per capita wealth retained.

The simple fact is, we have too many farm workers in North Carolina for the acreage under cultivation; too small an average of crop wealth produced per farm worker, and too little accumulated country wealth in consequence.

### Farm Tenancy a Radical Evil

Increasing farm tenancy means a steady decrease in the average size of farms, and a lessening chance to buy and use farm machinery profitably. Farm tenancy and small farms may mean larger yields per acre, but they also mean smaller yields per worker.

Permanent farm prosperity does not lie in the direction of smaller farms, smaller acreage per worker, smaller yields per worker, along with increasing farm tenancy, and deficiency in meat and milk animals.

In 1910, our farms without sheep numbered 239,000; without cattle of any kind, 67,000; without milk cows, 78,000; and without swine, 55,000.

#### A Spendthrift System

Tenants are usually crop farmers merely. They give themselves to hand-made cash-crops on small farms. They care little as a rule for livestock. And so we create enormous crop wealth from year to year and retain little of it; (1) because we cultivate too few acres per farm worker, (2) because the labor cost reduces profits to a minimum, (3) because our cash-crops are raised on a basis of expensive credit, and (4) because our cotton and tobacco wealth leaves the state to pay for food and feed crops we neglect to raise at home under the southern system of small farms cultivated by tenants.

## AVERAGE CULTIVATED ACRES PER FARM WORKER

### Based on the 1910 Census Report upon Agriculture and Occupations

S. H. DeVault, University of North Carolina.

Rank	State	Acres per Worker	Rank	State	Acres per Worker
1	North Dakota	156.2	25	Pennsylvania	35.9
2	South Dakota	126.7	26	West Virginia	34.5
3	Nebraska	120	27	Kentucky	31.7
4	Kansas	109	28	Delaware	30.6
5	Nevada	85	29	Maine	30.3
6	Iowa	83.2	30	Texas	29.5
7	Minnesota	70.3	31	Maryland	28.9
8	Montana	67.7	32	Virginia	27.7
9	Illinois	62.3	33	New Hampshire	26.7
10	Washington	62.3	34	Tennessee	23.4
11	Missouri	54.2	35	New Jersey	22.5
12	California	52.7	36	New Mexico	22.1
13	Oregon	52.2	37	Connecticut	21.1
14	Wyoming	50.7	38	Arkansas	17.3
15	Colorado	50.6	39	Georgia	17.3
16	Oklahoma	50.3	40	Arizona	16
17	Indiana	49.3	41	Massachusetts	15.8
18	Idaho	49	42	Louisiana	15.5
19	Ohio	45.9	43	Florida	14.9
20	Wisconsin	40	44	Alabama	14.6
21	New York	39.5	45	North Carolina	14.5
22	Michigan	39.5	46	Rhode Island	14.2
23	Utah	36.6	47	Mississippi	13.4
24	Vermont	36.5	48	South Carolina	11.9