TWENTY-EIGHTH ANNUAL REPORT
OF THE
BOARD OF TRUSTEES
OF THE
CLEMSON AGRICULTURAL COLLEGE
TO THE
General Assembly of South Carolina
1917
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To the General Assembly of the State of South Carolina:

Gentlemen:

In obedience to the duty imposed upon the Board of Trustees of Clemson College by the laws of the State, we herewith tender our Annual Report for the scholastic and fiscal year 1916-1917, and ask your careful reading and consideration of the information which will be found therein.

In the outset, we wish to call your attention to our very gratifying experience with our Senior Class that thrilled us over and over again, and made us feel that our training of these young men for life and for the country's defense, and your unflinching support of the College had not been in vain. This was abundantly manifest by the action of this class in tendering to the State and to the nation its services for defense in this world-wide war.

We wish to say also that the College classes in their fullness and that the student body in its volume, are convincing proofs of the need of the institution to the State and of its recognized good work by the citizenship of the State.

We would also acknowledge our sincere appreciation of the continued and continuous support of the institution, as was manifested by your extension of the use of the State's credit under the financial distresses that the war brought about in our income, and wish to assure you of our deep sense of responsibility to repay in due time in full the amount of this loan, with-
out loss to the State. The details of this matter are fully shown in the body of our financial report.

The College is still prospering under the wise and just leadership and management of our young President and his consecrated faculty. The health of the student body has been unusually good, and the discipline strong and sufficient; while the charges for board of the student body have been increased by conditions made necessary by the war, they are still within the reach of the humblest parentage in the State, who are putting forth due and proper industry.

We wish in conclusion to invite your careful reading of this entire report, because only by careful reading of it can you become acquainted with the details of the affairs of the institution.

The finances of the College were audited this year by Mr. L. A. Searson under the direction and control of the State Bank Examiner, and careful inspection will show that all moneys provided for the conduct of the College have been carefully and honestly expended. In addition to this audit, the Finance Committee of the Board has four times during the year audited the accounts and expenditures in order that they might see that every cent was being expended in accordance with the general policy of the Board, and in accordance with the items laid down in the appropriation budget.

Again thanking you for your faith in the integrity of the Board and your support in its tedious work, I remain

Most respectfully and truly yours,

ALAN JOHNSTONE,
President, Board of Trustees.
REPORT OF THE PRESIDENT OF THE COLLEGE

Clemson College, S. C., December 1, 1917.

Hon. Alan Johnstone, President of The Board of Trustees of the Clemson Agricultural College.

Dear sir: I have the honor to submit herewith the President's annual report covering the 24th session of the Clemson Agricultural College. The report covers the fiscal year from July 1, 1916 to June 30, 1917, and is intended as the basis for your twenty-eighth annual report to the Legislature.

I have arranged the report in eight main divisions as follows:

3. The Collegiate Work.
4. Student Life and Interests.
5. The Public Service.
7. The South Carolina Experiment Station.
8. The Present Session 1917-1918.

PART I. A GENERAL STATEMENT.

In the main, the year covered by this report was a very satisfactory one. The enrollment of 853 students broke all previous records. The Senior Class numbering 110 men, was second in size only to the class of 1916.

The Faculty worked loyally and efficiently. The health of the students was excellent. There were no serious disciplinary troubles. With the exception of the third term, which was somewhat upset by the excitement incident to the leaving of the Seniors for the officers' training camps, the class work was up to the usual standard.

There has been no building or material additions to the College plant during the last fiscal year. The budget for 1916-17 was built up on an assumed fertilizer tax of $170,000.00, and this figure allowed only for the barest necessities. The tax actually went to $216,215.29, and I am glad to report that our balance of $31,452.40 of a year ago has increased to $59,077.08 by July 1st.
1917. However, this balance is offset in part by $40,888.56 which we owe on the loan negotiated the second year of the war.

While no large visible equipment has been added, the Faculty during the past six months worked to thoroughly revise and enrich our curricula. Two new courses were added which, without additional cost, will enlarge the opportunities and greatly increase the attractiveness of the College to the young men of the State.

Because of its increasing service to them, the College is every year allying itself more closely to the people of the State. More and more are they coming to recognize in the College a great instrumentality for service, ready and willing at all times to under take any task which has in it a promise of betterment to the farmers of South Carolina.

**Inspections:**

During the session the College was visited by the Legislative Delegations of Oconee, Anderson and Pickens Counties, and inspected by the State Board of Health, the Board of Visitors, and the U. S. War Department. Also, the State Bankers Association held its annual convention at the College.

From all of these inspections and visitations, the College got an excellent report.

Since 1915 there has been no Legislative Committee delegated to visit the Colleges. It might not therefore be amiss to quote the following paragraph from the report of the Committee of December 1915, which was the last Committee to make the rounds of the educational institutions:

"Your Committee's visit to this institution was most agreeable and afforded many pleasant surprises. We do not believe the people of South Carolina know or appreciate even in a small degree the scope of the activities and agencies of this splendid institution. Its position among the educational institutions of the State is unique from several points of view, but especially so from the viewpoint that it serves so many people of every class and kind, and chiefly those who need most that service and whose support Clemson enjoys in the use of fertilizers. The College as such may be favorably compared with other institutions of its kind, and affords a liberal education in the arts and sciences in addition to the technique of certain trades, vocations..."
and professions. But the feature which most impressed your Committee is the splendid work which she is doing in her Departments of Research, Farm Demonstration, Extension Work, establishment of creameries and centers for the sale and shipment of cattle and grain, and other practical operations which so aptly fill and fulfill the needs of our agricultural population. The splendid and detailed report of President W. M. Riggs treats matters so fully, however, that we shall not dwell upon them.

The report of the War Department will be cited in connection with our report on the work of the Military Department.

The following resolutions adopted by the South Carolina Bankers Association gives an idea of the impressions made by the College upon that body of business men:

"Resolved, That the members of this Association express their full approval of the work of Clemson College, and that they pledge to those in authority their loyal and undivided support in continuing the efforts that are being made here for the upbuilding of the State, mentally, morally and materially."

The report of the Board of Visitors is given in full as a part of this report. The following sentence indicate the trend of their opinion:

"We were impressed with the magnificent College plant, the efficient work done not only in the education of the youth of our State, and preparing them for the active and practical participation in the problems of life, but the valuable information and useful help given free to the farmers of our State by the Experiment Stations and the Extension Work connected with the College."

Referring to the fiscal accounting systems of the College, the Board of Visitors says:

"It is a complete and thorough system of accounting, and leaves out nothing to be desired."

State Legislation:

During the 1917 Session of the General Assembly, the following measures affecting the College were enacted:

(a) An appropriation of $30,000 was made to continue the tick eradication work, and $41,843.07 to meet the provisions of the Smith-Lever Extension Act.
(b) An Act was passed to extend by five years the time in which the College might pay the balance of $40,588.56 due on the $62,400 loan made on authority of the State. At the end of the five year period, the payment becomes automatically due whenever the fertilizer tax goes beyond the $147,836.14 mark.

(c) An Act to provide for the teaching of Agriculture in the public schools of the State, in which the following paragraph occurs:

"The State Supervisor of Agricultural Instruction*** may do such teacher-training in the Agricultural and Mechanical College as may be agreed upon by the State Superintendent of Education and the President of the College. (Under this proviso our Professor of Agricultural Education has become the State Supervisor, in that way connecting the College up with the agricultural work of the schools in a proper and helpful relation.)

(d) An Act creating a Highway Commission, naming the Professors of Civil Engineering at the Citadel, Clemson and the University as members of the Commission. Under the Act, our Prof. Hale Houston becomes a member of this Commission.

(e) An Act prohibiting the State Colleges taking students from outside of the State unless within thirty days of the opening of the session there remain vacancies to be filled.

(f) An Act accepting the terms of the Smith-Hughes Vocational Bill and creating the State Board of Education as the State Vocational Board. (The importance of this Act to us lies in the fact that the Federal Department will cooperate with the Agricultural Colleges in the training of teachers in agriculture, textiles and manual arts. This will mean the inauguration of a very important new line of work which will be discussed at greater length in the report.)

**Federal Legislation:**

With the rapid centralization of our governmental forces, much general legislation of importance to the Land Grant Colleges has been enacted. Beginning with the Smith-Lever Agricultural Act, there followed the Act creating the Reserve Officers' Training Corps, the Smith-Hughes Vocational Education Act and the Farm Loan Bank Act, which latter supplements in a very important way our extension work by making it possible for men of small means to own farms. There is now pending in
Congress an Act to establish Engineering Experiment Stations corresponding to the Agricultural Experiment Stations of the Land Grant Colleges.

Reserve Officers' Training Corps (R. O. T. C.):

Realizing that the military instruction of the Land Grant Colleges had signally failed to add materially to the country's military resources, there were incorporated into the National Defense Act approved by President Wilson June 3, 1916, a provision for training officers at the Colleges of the nation. I shall seem to outline briefly the principle terms of this Act as applied to the Land Grant Colleges, to which class Clemson College belongs.

Any such College having more than 100 physically fit male students pursuing courses that require two years or more to complete, and which require at least three hours per week of military instruction, are eligible to enter the Senior Division of the R. O. T. C. Such a College must require the successful completion of at least the first two years of military work as a prerequisite for graduation.

The prescribed course of study embraces a Basic Course, 3 hours per week of military instruction during the Freshman and Sophomore years, and an advanced course of 5 hours per week during the Junior and Senior years. Students in the Basic Course of the first two years assume no obligation except to do the work satisfactorily, and receive no compensation except one olive-drab uniform outfit.

At the end of the first two years, any cadet regarded as fit for further training by the College President and the army officer at the College, could decide for himself whether or not to take the advanced course for the Junior and Senior years.

If he decided to enter the advanced course, he would have to take one hour additional of military work in the Junior and two hours additional in the Senior year, and assume the following obligations:

1. To carry out the prescribed military course of five hours per week to completion.

2. To put in during vacations two four-week camp periods under federal supervision.
Re would also be expected, though not required, to enlist in the Reserve Officers' Corps for a period of ten years, during which time he would be subject to fifteen days duty each year of his enlistment, if so required, and in time of war or threatened hostility, he could be called into service with the rank held in the Reserve Corps.

In return for these duties and obligations, he would receive:

1. **Commuted subsistence at approximately $9.00 per month.**

2. One olive-drab uniform outfit, which could be used at drill, and thus save the gray uniform and reduce the amount of these needed.

He would have also the following opportunities:

1. **To attend two four-week camps at the cost of the government.**

2. To be appointed for a six months' period after graduation as a temporary Second Lieutenant applies for appointment.

3. To get 15 days training each year while on the reserve list, with full army officer's pay and all expenses.

4. In case of war, to have the opportunity of serving the nation as an officer instead of as a private.

The entrance of the College into the R. O. T. C. does not force additional hours of military instruction upon any one who does not care to get the benefits accompanying the advanced course of the Junior and Senior years. It does, however, help many a poor boy to whom the assistance of the War Department is practically a $100.00 scholarship for the last two years.

To all the students of the College, physically fit would come the benefits of a more varied and interesting course under an adequate corps of instructors, and also the help of one complete olive-drab uniform outfit for drills.

**Additions to Plant:**

Because of the scarcity of funds, practically no additions to buildings and equipment were made during the year.

All of our Departments are feeling the need of new and
additional equipment, which on account of our financial condition, has been necessarily denied during the past few years. In this day of rapid development, scientific and engineering laboratories are soon out of date in their equipment unless continually added to. The obligation to furnish the very best teaching facilities for our students must always be of first importance,—other things needful must take a secondary place. The plan to become effective next session to devote at least the receipts from tuition to equipment for teaching will in a few years serve to remedy the above situation.

The addition to the Engineering Building, the new Hospital, and the new Laundry, all projected and begun the year the European War broke out, are badly needed, but await the necessary funds for completion. A better water supply is earnestly advocated by the State Board of Health, who feel that our present supply is neither adequate nor safe.

The Board of Trustees:

The Board of Trustees held the three meetings prescribed in the By-laws of the College, the November meeting being postponed to December in order to receive the report of the State Board of Charities and Corrections as to free tuition. The utmost harmony prevailed in the Board and between the Board and the President of the College. No vacancies occurred on the Board during the year covered by this report.

Changes in the By-laws:

The following additions and changes were made in the By-laws of the College:

(a) To Section 87, was added the following:

"Provided that in all cases of appeal from the decision of the Discipline Committee, notice of such appeal and the grounds therefor shall be filed with the President within ten days, and the president shall transmit the same to the President of the Board. In case the President of the Board deems the case meritorious, he shall call the Board to meet within ten days to hear the appeal."

(b) To Section 23, was added the following:

"No bills for service rendered or material consumed during any fiscal year shall be paid from appropriations of the next ensuing fiscal year."
(c) Section 53 was revised to read as follows:

"The first election or appointment of an officer or teacher shall be for one calendar year. The retention of a teacher or officer shall be subject to his re-election by the Board at the two ensuing July meetings. The second re-election shall be for a permanent position during good behaviour and satisfactory service, irrespective of change of work, title or salary."

Scholarship Loan Funds:

Under the rules adopted for the administration of the Southern Railway Fund, a report is required of the President to be made to the Southern Railway Co., and also the Board of Trustees, regarding the use to which this fund was put. Loans under this fund can be made only to young men pursuing Agricultural Courses, and who reside in counties traversed by the Southern Railway. The limit of loan to any one individual is $75.00 Not more than $250.00 of the total fund of $1,000 may be disbursed in one fiscal year. The following loans were made:

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Class</th>
<th>County</th>
<th>Amount</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-12-16</td>
<td>B. T. Leppard</td>
<td>Soph...</td>
<td>Laurens</td>
<td>$50.00</td>
<td>June 1920</td>
</tr>
<tr>
<td>1-31-17</td>
<td>M. M. McCord</td>
<td>Junior</td>
<td>Greenwood</td>
<td>50.00</td>
<td>June 1919</td>
</tr>
<tr>
<td>2-2-17</td>
<td>J. W. Wofford</td>
<td>Junior</td>
<td>Laurens</td>
<td>50.00</td>
<td>June 1919</td>
</tr>
<tr>
<td>2-12-17</td>
<td>W. C. Wilbanks</td>
<td>Soph...</td>
<td>Oconee</td>
<td>50.00</td>
<td>June 1920</td>
</tr>
<tr>
<td>4-23-17</td>
<td>O. L. Hayden</td>
<td>Junior</td>
<td>Orangeburg</td>
<td>50.00</td>
<td>June 1919</td>
</tr>
</tbody>
</table>

The Treasurer holds the notes of the above parties bearing 6 per cent interest from the date the note was made.

In awarding these loans, I submitted each name to the faculty for its recommendation in order that the letter and spirit of the rules governing the loan might be carried out, and the money be loaned not only to indigent, but to promising and deserving men as well.

At the December 1917 meeting of the Board, Mrs. Mary nCerry Doyle offered the College $1,000 to be known as "The George Cherry Foundation, to be loaned to indigent and deserving students living in Oconee and in the vicinity of Pendleton in Anderson County. At the July 1917 meeting, the following rules governing the disbursement of the fund, and were adopted:

1. That after a student has been in College for one term, (approximately three months) and during that time demonstrat-
ed his character, studiousness and promise, as well as his need
for help, the President of the College may at any time thereafter
during the session, lend to such student a sum not to exceed
$100.00 during any one session; provided, that loans shall be
made only to students who are pursuing regular one year or four
year courses, and who are residents of Oconee County, or of the
territory within a radius of five miles of Pendleton Courthouse,
and who do not hold other scholarships of any kind.

2. That the student receiving this financial assistance shall
give his note bearing 6 per cent. interest payable, one, two or
three years after completion of course. The loans of the first
year shall be payable within one year after completion of the
course, and any second, third and fourth loans shall be payable
two, three or four years respectively after date of normal com-
pletion of the course.

At the discretion of the President, the student may be required
to furnish at least one endorsement from a financially responsi-
ble party, who may be the student's parent or guardian.

3. The President shall at the close of each fiscal year, June
30, make a statement to the Clemson College Board of trustees,
giving full details as to the use and status of the Fund, and this
shall be published in the Oconee papers.

4. Not more than one-fifth of the Fund shall be loaned in any
one fiscal year.

Exhibits:

The exhibits of the College, including that of the Cooperative
Demonstration and Extension forces at the State Fair in
Columbia, were highly creditable. They gave to the people of
the State a comprehensive idea of the scope and value of the
work of the College. The pictorial illustrations of the various
Departments of the institution were specially interesting to
those who had never had the opportunity to visit the College.

PART 2. A FISCAL STATEMENT.

The Treasurer's Annual Report which is appended gives
detailed information in regard to the finances of the College
during the year June 1, 1916 to June 30, 1917.

In addition to the summarized report which is made a part
of this paper, the Legislature is furnished with a special report
containing not only a condensed statement, but a list of all bills
paid by the Treasurer out of College funds.
For the purpose of discussion, a condensed summary of resources and expenditures is given below in such form as to be readily understood.

**Resources.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance brought forward from July 30, 1917</td>
<td>$31,452.40</td>
</tr>
</tbody>
</table>

**Income:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privilege Fertilizer Tax</td>
<td>$216,432.49*</td>
</tr>
<tr>
<td>Morrill &amp; Nelson Fund (U. S.)</td>
<td>25,000.00</td>
</tr>
<tr>
<td>Interest on Landscript</td>
<td>5,754.00</td>
</tr>
<tr>
<td>Interest on Clemson Bequest</td>
<td>3,512.36</td>
</tr>
<tr>
<td>Tuition from Cadets</td>
<td>14,243.55</td>
</tr>
<tr>
<td>Sales, Interests, Rents, Refunds</td>
<td>7,755.23</td>
</tr>
<tr>
<td><strong>Total Available Resources</strong></td>
<td><strong>$304,150.03</strong></td>
</tr>
</tbody>
</table>

**Expenditures.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public State Work:</td>
<td></td>
</tr>
<tr>
<td>Scholarships and Advertisements</td>
<td>$21,559.99</td>
</tr>
<tr>
<td>Extension &amp; Demonstration Work</td>
<td>9,994.26</td>
</tr>
<tr>
<td>Fertilizer Insp. &amp; Analysis</td>
<td>27,329.62</td>
</tr>
<tr>
<td>Pee Dee Experiment Station</td>
<td>2,160.08</td>
</tr>
<tr>
<td>Coast Experiment Station</td>
<td>2,367.60</td>
</tr>
<tr>
<td>Veterinary Inspection</td>
<td>5,016.71</td>
</tr>
<tr>
<td>Cooperative Exp'l Work</td>
<td>1,558.80</td>
</tr>
<tr>
<td>Crop Pest Commission</td>
<td>1,843.76</td>
</tr>
<tr>
<td>Miscellaneous Public Work</td>
<td>3,948.42</td>
</tr>
<tr>
<td><strong>Total Public State Work</strong></td>
<td><strong>$75,779.24</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Operating Expenses:</td>
<td></td>
</tr>
<tr>
<td>Salaries, Labor, Coal, Materials, etc</td>
<td>$153,397.32</td>
</tr>
</tbody>
</table>

**Additions to Plant:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Shop, Library and Laboratory Equipment, etc</td>
<td>$5,348.04</td>
</tr>
</tbody>
</table>

**Building and Permanent Improvements:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Expenditures</strong></td>
<td><strong>$245,072.95</strong></td>
</tr>
<tr>
<td>Balance Carried Forward</td>
<td>59,077.08</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$304,150.03</strong></td>
</tr>
</tbody>
</table>

The following shows clearly in a graphic way the College finances for the year under consideration:

* The Treasurer's report shows receipts from this source $237,943.93 because $21,511.44 of 1915-1916 tax was paid over by State Treasurer in 1916-1917, and by the College Treasurer paid on Loan in 1916-1917.
RESOURCES Fiscal Year 1916-17

TOTAL RESOURCES $304,150.03

EXPENDITURES $245,072.95

BOL. ON HAND 7-1-17 $39,077.08

STILL DUE ON LOAN $40,888.56

New Bldgs. and Equipment $15,896.39

OPERATION OF COLLEGE $153,397.32

PUBLIC SERVICE $75,779.24

COLLEGE $169,293.71

DETAILS OF PUBLIC SERVICE

Miscel. $24,484.47
Branch Stations $43,279.08
Crop Pest Control $11,999.70
C-G-6 Experiment Station $57,065.00
Fertilizer Inspection and Analysis $25,752.76
Extension and Demonstration $29,779.76
Agricultural Education $14,046.00
Art Work $5,000.00

TOTAL EXPENDITURES $245,072.95
The above statement represents all funds available for the use of the College, including its contribution to Public Service. The South Carolina Experiment Station received $30,000 from Federal funds, all of which was used for approved lines of agricultural research. The Extension Division under the Smith-Lever Act received $38,767.11 from the Federal Government, and $31,380.00 by legislative appropriations in 1916-17, a total of $70,147.11, and in addition certain sums from Counties and the U. S. Department of Agriculture. None of this money could be used for resident teaching or other collegiate work. A legislative appropriation of $30,000 was made for tick eradication work and used entirely for that purpose.

The money paid in by students for board, laundry, heat, light and water, medical attention and incidentals, is held in trust by the College for the use of the cadets, and none of it is used for College expenses.

You will recall that in January 1916, with the permission of the Legislature, we borrowed $62,400 pledging all receipts from the fertilizer tax over $147,836.14 to the re-payment of the loan. Out of the receipts of the fiscal year 1915-16, a payment of $21,511.44 was made on the debt. In July 1916 the President of the Board executed a renewal of the obligation for the balance due at 4 per cent.

On account of unsettled conditions due to the war, and the possibility of invasion by the boll weevil, the 1917 Session of the General Assembly was petitioned to extend the time for carrying out the above pledge as to payment, for five years. This request the Legislature granted. The College pays the interest and the postponement works no hardship on the State. Beginning with the fiscal year 1917-18, it is our plan to put aside $10,000 each year so that at the end of the five year period funds will be on hand to liquidate in full our indebtedness.

While the year was closed with a balance on hand of $59,077.08, this balance is necessary to carry the College from July 1st to December 31st, during which time the receipts from the fertilizer tax are comparatively small. But for the above fact, the balance due on our loan could have been paid out of the cash on hand.

To carry the regular College Budget and Public Service
requires in addition to other routine sources of support, a fertilizer tax of approximately $210,000.

The audit of the books and accounts of the Treasurer was made by Mr. L. A. Searson under the supervision of the State Bank Examiner. His report is attached hereto.

Free Tuition:

As a result of referring to the State Board of Charities and Corrections the question of determining financial ability, the tuition collected the first session under the new law was 205 per cent greater than that collected during the previous session. The figures were 1915-16, $4,670.00; 1916-17, $14,243.55. At the opening of the session all who presented auditor's certificates of inability to pay tuition were exempted pending the final determination of the question by the Board of Trustees. In all cases of adverse decision, the parent was required to pay the tuition or withdraw his son from College.

It is rather unfortunate that the determination of the question of right to pay tuition should be deferred until nearly three months after the session has been in progress. However, with the large number of names before them, December is as soon as the State Board of Charities and Corrections can complete their work and make report to the Board of Trustees. The Board met on December 20th, and promptly thereafter the findings were sent out to the parents of students in attendance.

PART 3. THE COLLEGIATE WORK.

Standards of Admission:

Clemson College is a member of the State Associations of Colleges, and the standards of admission are those adopted by that Association by all of the Colleges in the State. The rapid development of the schools makes it possible to meet the minimum requirement of twelve units without serious hardship. At present it would not be practicable for State Colleges to require more than that.
The Faculty:

Quoting from my last year's report:

"The Faculty as a whole is a well-trained, loyal and enthusiastic body of men, a credit to any College. Its work during the past session deserves special praise. The ratio of teachers to students is approximately 1 to 13. At the best colleges it is usually better than 1 to 12."

Enrollment and Classification:

The total enrollment for the regular college session was 853, distributed as follows:

- In Agricultural courses ____________ 479—56 per cent.
- In all other courses ____________ 374—44 per cent.

The 853 students who were enrolled during the session were distributed between classes as follows: Seniors 112, Juniors 152, Sophomores 190, Freshmen 338, One year Agricultural 32, Irregulars 26, Post-Graduates 3.

On June 8 we awarded certificates to 21 young men who had completed the One Year Agricultural Course, and on Commencement Day, 110 diplomas for the completion of the four year courses. This number included 46 young men who had left College about May 14th to enter the army. Reference to these cadets will be made later.

The graduates were distributed as follows:

- In Agriculture __________________________ 56
- In Elec-Mech. Engr. _______________________ 32
- In Civil Engineering ______________________ 10
- In Textile Engineering ____________________ 4
- In Architectural Engineering _____________ 4
- In Chemistry ______________________________ 4

Total ____________________________ 110

Two were awarded certificates for completion of the Special Two-year Textile Course. The two certificates for meritorious agricultural service were awarded to Mr. J. C. C. Brunson of Florence and Col. R. B. Watson of Ridge Springs.
Vital Statistics:

The following data on 843 of the students enrolled will be of interest:

1. Average age - 19 years, 5 mos.
2. Average height - 5 feet, 9 inches.
3. Types—Blonds 391, brunettes 455, or 53.7 per cent.
4. Living in country and small towns - 600 or 71 per cent.
5. Living in cities and towns over 2500 population - 246 or 29 per cent.
6. Born in the country - 553 or 65.4 per cent.
7. Averaging 14 years on the farm - 610 or 72 per cent.
8. Sons of parents who are now, or have been farmers - 706 or 83.5 per cent.
9. 245 students now in College have had 338 brothers to attend, of who 121 graduated.

The War Class of 1917:

Promptly when a state of war was declared, the Senior Class assembled, and as a body offered its service to the President of the United States and to the Governor of the State. This was the answer the class of 1917 to President Wilson's proclamation to make the world safe for Democracy. Forty-six members of this class, practically all who were of age and acceptable to the examining officer, entered the officers' training camps at Fort Oglethorpe and Fort McPherson and elsewhere, making the first contribution of this institution to world freedom. It is with a thrill of pride that we publish the names of the young men from the graduating class of 1917 who so promptly responded to the country's call: Adams, J. P.,*** Allison, H., Anderson, V. T., Barron, A. A., Baxter, C. L., Berry, J. F. Bonner, W. C.,* Bowen, R. A.,*** Bruce, E. C., Buie, T. S., Caskey, A. J., Chapman, H. R., Crumpler, D., Derham, J. P.,* Dick, J. B., Ellis, L. C., Fain, P., Freman, W. T.,* Garrett, C. S., Garrison, E. H., Graham, S. W., Harmon, H. M., Harris, C. G., Harris, H. S., Hobbs, K. O., Hunter, J. E.,*** Jefferies, W. N., Jervey, T. M., Johnson, W. B., Lightsey, O. P., Long, E. W.,* Hutson, W. M., McDermid, G. C., Meares, W. A., Monroe, D. E., Norman, A. L., Patjens, A. A., Rivers, E. L., Sellars, A. R., Shearer, W. A., Singley, L. K., Spratt, T.,** Hyler, G. R., Warriner, L. R.,*** White, W. T., Worthy, H. C.

* Did not receive commission. ** Private of Ambulance. *** Marine.
Of these young men, over 91 per cent were commissioned, as compared with an average of 62.1 per cent of all who entered training camps.

Resignations:

(a) In the Agricultural Department: J. N. Harper, Dean and Director S. C. Experiment Station, January 1, 1917; G. M. Anderson, Assistant in Entomology, July 1, 1916; R. B. Lowry, Instructor in Agonomy and Farm Machinery, September 1, 1916; C. E. Littlejohn, Assistant Entomologist October 16, 1916; C. J. King, Assistant Chemist (Soils Division) July 1, 1917; J. A. Raitt, Dairy Manufacturing Expert, July 1, 1917; W. W. Diehl, Instructor in Botany (for one year) August 1, 1917; R. B. Waters, Clerk Extension Division, November 23, 1916; T. M. Cathcart, Clerk, Extension Division, May 23, 1917.

(b) In the Engineering Department: F. R. Sweeney, Assistant Professor Civil Engineering, September 1, 1916; Albert Simons, Instructor Architectural Engineering, September 1, 1916; H. L. Pote, Instructor in Woodwork, September 1, 1916.

(c) In the Chemistry Department: C. S. Lykes, Assistant Chemistry Fertilizer Analysis, February 1, 1917.

(d) In the Military Department: T. P. Duckett, Assistant to Commandant, April 24, 1917.

Appointments to Fill Vacancies:


(b) In the Engineering Department: G. S. Eaton, Assistant Professor Civil Engineering, September 1, 1916; L. W. Funke,

(c) In the Chemistry Department: R. E. Pennel, Assistant Chemist, Fertilizer Analysis, July 1, 1916; R. P. Thornton, Temporary Assistant Chemist in Fertilizer Analysis, February 1, 1917.

On Leave (Without Pay): D. B. Rosekrans, Instructor in Botany, September 1, 1916 to September 1, 1917; T. P. Duckett, Assistant to Commandant, September 1, 1916 to September 1, 1917; C. J. King, Assistant Chemist (Soils Division) indefinite; A. Bramlett, Instructor in Mathematics, May 14, 1916 to end of war.

To Fill Vacancies Caused by Leaves of Absence:


Promotions in Title:

D. B. Rosekrans, Instructor in Botany, to Assistant Professor in Botany, September 1, 1917; G. F. Lipscomb, Assistant Professor in Chemistry to Associate Professor of Chemistry, January 1, 1917; W. E. Speas, Instructor in Physics, to Assistant Professor of Physics, September 1, 1917; Wallace Wolcott, Instructor in Architectural Engineering, to Assistant Professor of Architectural Engineering, September 1, 1917; D. H. Henry, Associate Professor of Chemistry to Professor of Chemistry, September 1, 1917.

New Offices Created:

Professor of Agricultural Education (filled later by election of Verd Peterson, July 6, 1917); Professor of Rural Sociology, (Filled by election of W. H. Mills, September 1, 1917;) Instructor in Shop Work, (Filled by election of J. L. Marshall, September 1, 1917.

Officers Annulled:

Instructor of Wood Shop; Instructor of Forge Shop; (Combined into the position of Instructor in Shop Work.)
Review of Departments:

The College is made up of the following Departments: Academic, Agricultural, Chemical, Engineering, Military, Textile, and Miscellaneous. In each Department are a number of subject-matter divisions. These subject-matter divisions are the units of organization.
The Engineering Department: The work of this Department has been quite satisfactory. Without scholarships to attract students, it has every year its full share of graduates. For the session of 1916-17, thirty-two graduated in the course of Mechanical and Electrical Engineering, ten in Civil Engineering, and four in Architectural Engineering, a total of 46 out of a graduating class of 110.

The Engineering Department in particular is suffering from the lack of adequate up-to-date equipment for teaching. This is particularly true in Mechanical and Electrical Engineering lines, in which progress and improvement are so rapid.

The new curriculum providing for a separation of the Electrical and Mechanical Engineering work into two courses will be a decided improvement, and meet a demand which has been coming up from engineering students ever since I was director of the Engineering Department.

The much-needed fifty-foot addition to the engineering building remains uncompleted. The overflow is being taken care of in the Textile Department, and in the top story of Mr. Stackhouse's building.

Textile Department: Four young men graduated in this Department and two completed the Special Two-year Course. The demand for graduates has always exceeded the supply. This Department is the best equipped of any in the College, and could teach many more students than it does if only they would choose this course. With revived prosperity in the cotton mills, it is likely that more young men will do so.

Under the Smith-Hughes Vocational Act, there is a fine field open to this Department to train textile teachers for night and part-time schools. Much of this training will likely have to be done on the Extension plan rather than by the orthodox resident college methods. To work out a plan for carrying on such work will be one of the tasks for the coming year.

Chemistry Department: The work of this Department continues thorough and efficient. Taken as a whole, it is well equipped and well manned. Every student in College, with the exception of the One Year Agriculturals, takes Chemistry for at
least one session. The teaching work of the Department is therefore of great importance, and it is gratifying to record that it is very well done.

The work of fertilizer analysis carried on by this Department, the head of the Department being also the Chief Chemist of the State, has been maintained at its usual high standard. Experienced Chemists are employed to make the analyses, and every care is taken to insure fair and accurate results. A statement in greater detail under the head of Public Service occurs later in this report.

The Academic Department: This Department, including the subjects of English, History, Mathematics, Physics and Political Economy, is more directly related to the public schools systems of the State than are the purely technical Departments. Upon the student's progress in this Department depends largely his chances of success, particularly in the two first years. Too often we find young men handicapped by lack of thorough schooling in English, Mathematics and History. It is English and Mathematics that students fail in the Freshman Class rather than in subjects that are new to them and in which no previous training is counted upon. As a result, a good deal of work which should be done in the schools has to be done in college classes.

Every student in College pursues courses in this Department, it being the policy of the College to relate to technical training as much of culture as is possible in the time available.

The work of the Department as a whole has been quite satisfactory, and it has been fortunate in not suffering any changes in personnel. Prof. T. G. Poats was Acting Director during the period covered by this report. According to the plan of rotating this office. Prof. D. W. Daniel will be Acting Director this (1917-1918) session.

The Military Department:

During the past session the Military Department has been in charge of Capt. R. A. Jones, U. S. A. Capt. Jones has made us a most excellent military instructor and a satisfactory Commandant.
The report of the War Department made by Capt. James E. Ware on April 28 and 28, is quite complimentary. Capt. Ware states that the College is essentially military, and that a high degree of importance is attached to the military instructions by the officers of the College. He states that the military spirit is developed to a "great extent," and military duty performed with a "high degree" of zeal. He refers to the general appearance of the cadets at inspection as "excellent."

The following is a summary of the inspection quoted from the Inspector's report:

1. Conference with the President—"cordially received."
2. Inspection of barracks and messing facilities—"very good."
3. Review and Inspection; arms and equipment—"good."
4. Battalion parade—"very good."
5. Escort to the colors—"very good."
6. Guard mount—"very good."
7. Close order drill—Battalion, company and squad—"very good."
8. Extended order—"good."
9. Calisthenics—"good."
10. Bayonet exercise—"good."
11. Field exercises; rear guard—"very good;" advance guard—"very good;" combat offensive—"good;" patrolling—"very good."
12. Critique and short talk to officers and non-commissioned officers.
13. Inspection of records—"excellent."
14. Meeting and inspection of advanced class of R. O. T. C.—"very good."

The admission of the College into the Senior Division of the R. O. T. C. was a long step forward not only from a military standpoint, but along the line of increasing the opportunity of poor boys to get assistance. As stated elsewhere in this report, students in the first two years get a commutation of $14.00 to apply to their uniforms and during the second two years, those who are admitted to the advanced course get the commutation for uniform, and $9.00 per month for subsistence as well.

In order to get the advanced course started, Capt. Ware, the Inspection Officer, permitted 22 Juniors to enroll in the advanced
course, and be eligible to the Senior Class of this next session. These Juniors were required to do extra work in their own time and during summer vacation, in order to make up for not having had the first year of the advanced course. It is expected that next session practically all students who are acceptable will enter the advanced course in order to get the extra compensation, as well as the intensified military training.

During the session, Capt. Jones was assisted by Mr. L. W. Boykin, who will not be available next session because of his having entered the officers' training camp. The College was furnished with First Sergeant W. H. Dinnison by the War Department during the latter part of the session. In normal times we are entitled to eight such non-commissioned officers and three army officers. In fact, it will be impossible for two army officers to do the work of instruction prescribed by the War Department for the R. O. T. C. Advanced Course.

While perhaps not practicable nor altogether desirable to carry out his recommendation in its entirety, the following quotations from the annual report of the Commandant is, I think, of sufficient interest to justify insertion in this report:

"This institution is now on the threshold of becoming an excellent Military College if the golden opportunity is not allowed to slip by. Especially since the establishment of the R. O. T. C. unit, it is almost possible for the regular routine discipline to be controlled by the cadet officers, responsible only to the Commandant and the President. This, however, is stopped just short of success by the feeling that this is not a military school, that the military part is of minor importance. This feeling seems to pervade the entire school and is noticeable in the Faculty as well as in the Corps. Perfection both in military instruction and discipline is greatly retarded by this feeling which blocks the way of advancement like a stone wall. Military control is a jealous matter; it must be all or nothing to succeed. I believe a marked and rapid improvement would be the immediate result of open announcement, that since its entry into the R. O. T. C., this College has become a Military College, where the military work is of the greatest importance, and this announcement followed by the strong and continual support of the entire faculty."
"The emphasizing of the military feature of the College would not detract from the work of any other Department, but would to the contrary make possible greater efficiency in every other line by the development of promptness, alertness, neatness, accuracy in detail, physical condition, order, system, zeal, honor and devotion to study."

The Agricultural Department (Resident Teaching):

Out of a graduating class of 110, fifty-six were from this Department. Probably no other Agricultural and Mechanical College in the nation has so large a percent of its graduates in full four-year courses in Agriculture. In addition to these graduates, 21 young men completed the "One Year Agricultural Course."

Prof. J. N. Harper, who for more than eleven years had been connected with the College as Director of the Experiment Station, and later as Dean of the Agricultural Department as well, resigned on January 1st, 1917, to become Director of the Farm Service Bureau of the Southern Fertilizer Association.

The College has never had in its employ a more consecrated officer than Director Harper. Accurate, painstaking and scrupulously honest in all matters, energetic and devoted in his supervision of the farm and branch stations, just and tactful, even affectionate, in his relations to his subordinates, his going leaves a vacancy in our ranks to which it will be hard to reconcile ourselves.

The Committee appointed to select a successor to Prof. Harper was unable to find an experienced man available for the important executive position of Dean of the Agricultural Department. The Committee therefore recommended that Prof. H. W. Barre be made Director of the Experiment Station, and Dr. F. H. H. Calhoun Director of Resident Teaching.

With Mr. W. W. Long as Director of Extension, the new arrangement gives to the Department three service Directors, responsible directly to the President. The new organization is in line with the policies of the best Agricultural Colleges, who recognized that a separate administrative officer is necessary to properly utilize the entire resources of the Department in the three lines of service.
The three lines of service, Research, Teaching and Extension, cannot be well separated because all must use the same instruments, namely, the subject-matter divisions. The closest cooperation between the three Directors is necessary to insure the largest results in any of these three lines of service. The experts in the subject-matter divisions must be responsible for all three lines of work. Both teaching and extension must rest upon the research. The Extension Division is the mouth-piece of the College to convey to the people the results of this research and the facts of importance gleaned by the experts of the various division staffs.

The Treasurer’s Office:

The volume of work in the Treasurer’s office has steadily increased with the additional vouchers from the tick eradication work and from the Extension Division, which disburses the Smith-Lever funds.

No effort is spared by the Treasurer, Mr. S. W. Evans, and his assistants to make their record full and absolutely correct. No department of the College receives more compliments from competent judges than does this one. The Board of Visitors after a thorough inspection, say in their report:

“We examined the accounting system used by the College, and were much impressed by its completeness and thorough adaptability to the needs of the situation. Mr. S. W. Evans, the competent and affable treasurer, showed us through his Department. It is a complete and thorough system of accounting and leaves out nothing to be desired.”

The books and accounts of the Treasurer for the year 1916-1917 were audited by Mr. L. A. Searson, a well-known accountant, under the supervision of the State Bank Examiner, and the auditor’s report is attached hereto.

The Library:

It gives me pleasure to report a continued use of the Library by the cadets. We now have 17,195 bound volumes, 10,000 government publications, and 15,000 pamphlets. Because of lack of funds few books have been added during the past four years.
It is hoped that in 1917-18 funds may be available to supply the most urgent needs. Students are encouraged by the Librarian and her Assistant to use the Library for research and reference, thus familiarizing them with the methods of obtaining information.

Public Utilities:

Under this heading are included the divisions of Construction and Repairs, Heat, Light, Water and Sewerage, and Campus and Roads. These represent, as it were, the municipal feature of the College.

The Construction and Repair Division is under the supervision of Mr. Joseph Hewer. Prof. R. E. Lee is the Architect of the College. This Division is charged with the upkeep of all the buildings of the College property, and the erection of all but the most important buildings.

The Heat, Light and Water Division, under the supervision of the Engineering Department, maintains the lighting and power service, furnishes the necessary steam for heating the barracks and college buildings, and operates the pumps that distribute the water supply. Water and light are furnished members of the faculty and charged for on a meter basis. On account of the addition of the new Y. M. C. Building, an addition of 25 feet was made to the power station, and an additional 150 H. P. Babcock-Wilcox boiler installed.

The question of a satisfactory water supply is becoming more pressing with every passing year. As our consumption amounts to over 120,000 gallons daily, we are having to pump more and more from the Hunnicutt-Branch station, a source of supply annually condemned by the State Board of Health. It will cost $6,000.00 to put in the necessary auxiliary plant and filter beds to get a water supply of satisfactory and safe quality, and at present funds are not available for that purpose.

The drinking water for the cadets comes from a deep spring and is pumped through barracks and the College buildings. This water is analyzed at least once a month, and has never shown the slightest contamination.
The College Printery is well equipped with a linotype, cylinder press and other standard apparatus. As an evidence of what can be done, it might be cited that the College catalogue and this report were printed here. The plant is leased to a manager who works under the general supervision of the College.

The beauty of the Campus has been greatly enhanced by the building of cement walks and good roads. The College has no greater asset than its campus and much more can well be expended in its development. The campus now constitutes a part of the equipment of the Horticultural Division, and is being developed under the expert supervision of Prof. Newman. During the year several miles of top soil roads have been put down.

The College Farm:

Upon the retirement of Prof. Harper, the College Farm was put under the supervision of Prof. C. C. Newman, who is managing and developing this important interest most acceptably. There is every prospect that this will be a very successful year. The two years previous to this were bad years because of overflows on the river bottom lands.

PART 4. STUDENT LIFE AND INTERESTS.

"The health, subsistence, recreation and religious life of the students is of the no less importance than the fiscal and academic phases of College administration. Therefore, a consideration of these matters has a proper and important place in this report." (From 1915-16 report)

The great rise in the cost of all provisions made it necessary to increase the charge for board from $8.00 to $9.00 per month, beginning at the middle of the session, February 3, 1916. The increase was probably made too late, as a deficit of $3,287.45 was incurred. The deficit was covered by a balance brought over from the session before, accruing largely from other items in the cadet fund. (It will be noted in the last chapter of this
report that beginning with November 26 of the current session, a further increase had to be made.)

The living conditions in Barracks were in the main quite satisfactory. My relations with the students, both personal and official, were quite satisfactory. In spite of frequent absence from the College, on official business, and many other demands on my time, I have records on file of 958 conferences with cadets. Of course many others were not recorded.

**Expenses:**

The stated expenses of regular students who are in college for the entire session are as follows:

- Uniforms (3 coats, 2 trousers, 1 cap, 1 overcoat) - $45.10*
- Breakage fee (refunded if not required) - 3.00
- Medical fee - 6.00
- Matriculation and Incidental fee - 5.00
- Board, 4½ months at $8.00 per mo. and 4½ mos. at 9.00 - 76.50
- Laundry (9 months at $1.00 per month) - 9.00
- Heat, light and water (9 months at $1.00 per month) - 9.00

Total for session of 9 months - $153.60†

The expenses of students in the One Year Agricultural Course, October 10 to June 7, are as follows:

- Uniform (2 coats, 2 trousers, 1 cap) - $28.05
- Breakage fee - 3.00
- Medical fee - 6.00
- Incidental and matriculation fee - 5.00
- Board (4 months at $8.00, 4 mos. at $9.00) - 68.00
- Laundry (8 months at $1.00 per month) - 8.00
- Heat, light and water (8 months at $1.00 per month) - 8.00

Total - $126.05‡

The cost to the State of instructing a student at Clemson during 1916-17 was $179.60. This is significant of economy. But a fact of still greater importance to the patron of the College is the cost to him. I doubt if anywhere in the nation can a technical college be found where the cost to the parent, as well as to the State, is as low as it is at Clemson.

* Usually less than half this amount after the first session.
† Students who are able to pay $40.00 additional for tuition.
Cadet Funds:

The following is a statement of the Cadet Fund at the close of the year:

<table>
<thead>
<tr>
<th>Description</th>
<th>Receipts</th>
<th>Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Subsistence</td>
<td>$72,275.75</td>
<td>$81,175.92</td>
</tr>
<tr>
<td>2. Laundry</td>
<td>8,809.73</td>
<td>8,621.45</td>
</tr>
<tr>
<td>3. Hospital</td>
<td>5,160.00</td>
<td>4,617.98</td>
</tr>
<tr>
<td>4. Heat, Light and Water</td>
<td>7,026.56</td>
<td>7,005.89</td>
</tr>
<tr>
<td>5. Incidental</td>
<td>4,661.56</td>
<td>4,520.20</td>
</tr>
<tr>
<td>6. Breakage</td>
<td>2,815.27</td>
<td>2,815.27</td>
</tr>
<tr>
<td>7. Uniforms</td>
<td>33,526.60</td>
<td>33,552.95</td>
</tr>
<tr>
<td>Totals</td>
<td>$134,275.47</td>
<td>$142,309.66</td>
</tr>
<tr>
<td>Provisions on hand to credit of (1)</td>
<td>5,263.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$139,538.99</td>
<td></td>
</tr>
</tbody>
</table>

Deficit on session's business (all items) $2,770.67

Not a dollar of the above receipts is used for any College purpose. The money paid in is regarded as a trust fund and is expended entirely for the stated expenses of the cadets. Any balance that may accrue is carried forward to the credit of the next year. The above deficit will be offset by a balance accrued during the past seven years.

Health:

With the exception of a good many cases of grippe and measles, the health of the cadet corps was good. For two years we have missed the annual visitation of measles, but this year it returned with unusual vigor. During January and February there were 75 cases, but with fewer complications than usual.

I regret to report the death of Cadet J. O. McCants, a scholarship student from Berkeley County. This is the first death of a cadet at the College since October 1912. Cadet McCants was an earnest and satisfactory student, and had the respect of his teachers and fellow students.

The Board of Health in 1914 so severely condemned our present Hospital that in your July 1914 meeting an appropriation of
$15,000 was made to build an adequate and up-to-date Cadet Hospital. The brick are at the site, but unfavorable financial conditions have compelled postponement of the work of erection.

Religious Influences:

Four churches are located near the College and the cadets worship in these every Sunday during the session. Chapel services are held in the Memorial Hall every morning except on Saturday. The College contributes $500.00 to the salary of each of the four resident ministers, and in return they are expected to do pastoral work among the cadets in Barracks. The College also contributes $500.00 to the salary of the Y. M. C. A. Secretary. Attendance in chapel service every week day morning except Saturday and on church once every Sunday is required of every cadet.

Recreation:

Play is just as necessary as work in a successful college course. The college plant must include along with class rooms and laboratories proper facilities for rest and recreation. The Y. M. C. A. Building with its swimming pool, gymnasium, bowling alleys, etc., and the new athletic field furnish ample facilities for healthful exercise. The large auditorium in the Y. M. C. A. Building is utilized to give lectures, musicales, moving picture shows and the like. Among the principal lines of student activities may be mentioned the student publications; “The Tiger,” “The Chronicle,” “The Agricultural Journal,” and “Taps” the six literary societies, the Thalian and Class Dancing Clubs, and athletics, including inter-collegiate baseball, football, basketball, tennis and track.
PART V. THE PUBLIC SERVICE.

The work of Clemson College is not confined to resident teaching. In fact, an Agricultural College is a great public service corporation which must protect and serve the agricultural and industrial people of the State as well as educate their sons.

The Public Work of the College includes regulatory work, such as that required under the laws governing the movements of live stock, the control of contagious live stock diseases, the protection of buyers against diseased nursery stock and against plant diseases and insect pests, and the inspection and analysis of commercial fertilizers. This public work also includes the diffusion of agricultural information to the farmers and country children, stimulation of the schools by the offer of competitive scholarships, assistance in the school building program of the Department of Education by furnishing plans, etc., and in general is an effort to carry the benefits of the College to the largest possible number of agricultural people.

Under the present policy of cooperation, the U. S. Department of Agriculture is doing all of its extension work in the State in cooperation with the Agricultural College. If the College is to retain its leadership in agricultural matters, it must be prepared in attitude, in men and in money to take its full share of the load in double harness.

The College realizes the obligation that rest upon it to serve the agricultural people of the State. In 1908 when the fertilizer tax was $168,115.28, the expenditure for public service was $56,366.12. This year, 1916-17, with a fertilizer tax of $216,432.49 the expenditure for public service was $75,779.24. Meanwhile the College has increased its student body by over one-third, and nearly doubled its plant.

Elsewhere in this report, it is shown that $75,779.24 was expended for Public Service not directly contributory to the Collegiate work of that institution.

For the sake of emphasis, the cost of this Public Service for
the fiscal year which closed June 30, 1917, is given in detail below:

<table>
<thead>
<tr>
<th>For</th>
<th>Receipts</th>
<th>Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fertilizer Inspection &amp; Analysis</td>
<td>$9,994.26</td>
<td>$27,329.62</td>
</tr>
<tr>
<td>2. Extension &amp; Demonstration Work</td>
<td></td>
<td>$ 9,994.26</td>
</tr>
<tr>
<td>3. Beneficiary Scholarships &amp; Ad's.</td>
<td>21,559.99</td>
<td></td>
</tr>
<tr>
<td>4. Pee Dee Experiment Station</td>
<td>2,160.08*</td>
<td></td>
</tr>
<tr>
<td>5. Coast Experiment Station</td>
<td>2,367.60*</td>
<td></td>
</tr>
<tr>
<td>6. Veterinary Inspection</td>
<td>5,016.71</td>
<td></td>
</tr>
<tr>
<td>7. Crop Pest Commission</td>
<td>1,843.76</td>
<td></td>
</tr>
<tr>
<td>8. Cooperative Experimental Work</td>
<td>1,558.80</td>
<td></td>
</tr>
</tbody>
</table>

Total                                              $ 75,779.24

1. **Fertilizer Inspection and Analysis:**

Under the State laws, the Board of Trustees is charged with the inspection and analysis of all commercial fertilizers sold within the State. A committee of the Trustees constituting the Board of Fertilizer Control gives special oversight to this duty. Its personnel is Messrs R. I. Manning (Chairman,) J. E. Wannamaker, S. T. McKeown, and Alan Johnstone (ex officio).

The work of inspection is under the immediate charge of Mr. H. M. Stackhouse, Secretary of the Board of Fertilizer Control, and the analysis is done under the supervision of Dr. R. N. Brackett, State Chemist. A full report of each of these officers accompanies this report.

Mr. Stackhouse reports a total sale within the State of 756,617 tons of fertilizers other than cotton seed meal, and 1,07,007 tons of cotton seed meal, an increase over 1916-17 figures of 20 per cent for fertilizers, and a decrease of 12 per cent for meal. The total number of "official samples" collected was 1,581 and of "farmers samples" 243, a total of 1,823 as compared with 2,922 samples for the year before.

Regarding the fertilizer business of the year, Mr. Stackhouse makes the following interesting comment:

"It will be seen that the total fertilizer tonnage exceeds that of last year by 204,427 tons, while that of cotton seed meal was

* (Plus receipts from sales).
less by 17,381 tons. This was perhaps due in part to enlarged use in the manufacture of mixed fertilizers and to its growing use as stock food. Though the prices of all fertilizer materials were relatively higher than last year,—and notably this was true of potash—yet the increased number of complete fertilizers found on the market this season would indicate growing demand by buyers and ability of the trade to furnish this class of fertilizers. The continuation of the war and resulting high prices, has stimulated the domestic production of potash to promising stages that may cheapen its cost in future. But exorbitant cost of freights on imports of nitrate and other materials may further enhance cost of these and very materially shorten our supply."

The dual use of cotton seed meal for feed and fertilizer with different analyzing agencies leads to confusion and loss to the farmer. Much low grade meal is shipped into the State with feed stuff guarantees. The farmer often buys this meal for fertilizer purposes, paying the price of standard 7 or 7½ per cent meal, when a fertilizer analysis would show only 4 or 4½ of ammonia.

The analytical work has been done in a prompt and efficient manner. During the year ending June 30, 1,594 official samples of fertilizers were analyzed as compared with 1,598 samples for the previous year, and 260 farmers samples. There were 270 samples of waters ores, etc. sent in for analysis and examination.

It is interesting to note that on account of the continued shortage in potash, there were a large number of samples on the market furnishing phosphoric acid and ammonia only. 644 such samples were analyzed. Last season the number was 555 and the year previous, before stocks of potash were exhausted, only 19.

That the stock of potash this past season were larger than for the one previous is shown by the greater number of complete fertilizers on the market. There was an increase of 120 such samples this past season over 1915-16.

The report of the Chief Chemist is appended to this report, and is a most interesting document as reflecting the fertilizer situation of 1916-17.

2. Crop Pest Commission's Work:

The report of the State Entomologist and State Pathologist who work under the supervision of the Crop Pest Commission,
form a part of this report. As the boll weevil has reached South Carolina, Prof. Conradi's discussion of this matter and his statement of the rules governing the movement of the cotton seed from infested territory will be found of special interest. The section of his report on plant disease outbreaks is very important.

3. State Veterinary Inspection:

The report of the State Veterinarian is made a part of this report. This report shows that glanders has practically disappeared from the State. Not a single case was found last year, although a number of animals were tested for the disease. Our laws covering the importation of mules and horses brought into the State are largely responsible for the absence of this fatal disease. It is interesting in this connection to note that 14,560 horses and mules were imported into South Carolina in 1916-17 as compared with 18,207 last year, 1,500 the year the war broke out, and 29,068 the year before the war. Of 2,000 head of cattle tested for tuberculosis, only 25 reacted and were condemned and destroyed. Over 10,000 doses of black leg vaccine and over 545,000 cubic centimeters of hog cholera vaccine were prepared or tested and shipped to citizens of the State, at cost of production and distribution. In connection with the control of hog cholera, the State Veterinarian makes acknowledgment of the valuable assistance rendered by the County Demonstration Agents.

At the July 1917 meeting of the Board of Trustees, it was decided to ask the Legislature for an appropriation with which to enter into cooperative work with the Federal Department of Agriculture for the eradication of bovine tuberculosis. Also, to facilitate service, to establish an office in Columbia from which to distribute hog cholera serum and give veterinary service. At present the calls for service are beyond the capacity of the force of Veterinarians now employed by the College.

4. Branch Experiment Stations:

It is the plan of the College to have three Experiment and Demonstration Stations in addition to the parent station at
Clemson. One is already located in the coastal plain near Summerville, and one in the Pee Dee Section at Florence. The Station at Clemson is in the red clay lands of the Piedmont. Later when funds permit, it is hoped to establish a fourth in the Sand Hill Section. It is expected that these four stations will be fully representative of the soil and climatic conditions in the State. To multiply stations unduly would be too expensive, and would dissipate the energies of our Experiment Station Staff.

Splendid scientific work is being done at both branch stations — work which is of great value to the sections of the State in which the stations are located. It is to be greatly regretted that the financial outlook puts the establishment of the Sand Hill Station into the distant future.

An interesting report of the work of these stations is included in the report of the S. C. Experiment Station, which is appended to this report.

5. Agricultural and Textile Scholarships:

In obedience to law, the College offers 169 four-year scholarships in Agriculture and Textile Engineering, and fifty-one one-year scholarships in Agriculture for young farmers over eighteen years of age. Of the 188 scholarships in force, session 1916-17, 133 or 70.7 per cent were held by farmers' sons, and 65 or 29.3 per cent by the sons of clerks, lawyers, ministers, merchants, etc.

No appropriation is made by the Legislature to cover the cost of these scholarships, now amounting to about $22,000 annually. The cost is a charge against the current income to the College from the fertilizer tax. In the 17 years since the establishing of these scholarships, the total cost has been approximately $219,790.62.

6. Miscellaneous:

In addition to the principal lines of Public Service enumerated and described, the College administers other minor public interests. Under the State law, a suitable equipment is installed in the Textile Department to manufacture State flags. These flags are sold at cost.
In the Drawing Division of the Engineering Department, plans for rural school buildings are prepared for the use of the State Department of Education.

The four-week summer School is generally held at the College in August. Last summer on account of unsettled conditions and the need of men at home on the farm, the course was not offered.

PART VI. COOPERATIVE WORK WITH THE U.S. DEPT. OF AGRICULTURE.

Several divisions of the Agricultural Department of the College are working in cooperation with Bureaus of the Federal Department as follows:

(a) With Bureau of Plant Industry—Division of Botany.
Cotton wilt work, root knot investigations, plant disease survey, investigation of new corn disease, plant introduction and acclimatization.

(b) With Bureau of Forestry—Division of Botany:
Forestry experimental work at the Coast Experiment Station.

(c) With Bureau of Entomology:
Slender wire worm investigations.

(d) With Bureau of Plant Industry—Division of Agronomy:
At Pee Dee Station—Sweet potato investigations. breeding of peanuts, testing varieties of peanuts, fertilizer experiments with peanuts, methods of establishing bermuda sods, variety tests of soy beans.

(e) With the Bureau of Animal Industry:
Cattle Tick Eradication.

(f) With the Bureau of Plant Industry (States Relation Committee.)—Cooperation Extension and Home Demonstration Work.

The last two important projects involve the necessity of appropriations by the General Assembly, and will therefore be discussed at greater length.
Cooperative Extension and Demonstration Work:

The report of the Director of Extension, Prof. W. W. Long, is attached to this report and gives a complete outline of the activities, expenditures and prospects of that Division. It shall be my purpose here briefly to outline the terms of the Agricultural Extension Act under which the work is partially financed.


The principal terms of the Act are in brief as follows:

1. Only a college receiving the benefits of the Land Grant Act of 1862 (the "Land Grant Colleges") can be selected by the Legislature to administer the Extension Work provided for, under the Act. (The Legislature in 1915 designated Clemson College to carry on this work.)

2. The funds arising under the Act cannot be used for educational work done at the College, but only for giving instruction and practical demonstrations in agriculture and home economics to persons not attending the College. (The College is merely the Agent to administer the fund—not the beneficiary of it.)

3. For the maintenance of the work, there is permanently appropriated $480,000 per annum, or $10,000 for each State which accepts the provision of the Act. In addition, there is appropriated $600,000 for the second fiscal year of operation, 1915-16, and for each year thereafter for seven years, $500,000 additional, until a total of $4,100,000 is reached. This with the $480,000 makes a total of $4,580,000, and continues as a permanent annual appropriation. Unlike the initial appropriation of $480,000, these additional appropriations are not equally divided among the States, but are to be allotted annually to each State in the proportion which its rural population bears to the total rural population of the United States based on the last preceding census. They are also conditioned upon provision by the State of an equal sum for maintenance of the work.

For South Carolina, which is entitled to 2.61 per cent of the
additional appropriation, the Act would provide approximately the following funds:

<table>
<thead>
<tr>
<th>Year</th>
<th>Federal Appropriation</th>
<th>State Appropriation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1914-1st year</td>
<td>$10,000.00</td>
<td>$0,000.00</td>
<td>$10,000.00</td>
</tr>
<tr>
<td>1915-2nd year</td>
<td>$25,691.15</td>
<td>$15,691.15</td>
<td>$41,382.30</td>
</tr>
<tr>
<td>1916-3rd year</td>
<td>$38,767.11</td>
<td>$28,767.11</td>
<td>$67,534.22</td>
</tr>
<tr>
<td>1917-4th year</td>
<td>$51,843.07</td>
<td>$41,843.07</td>
<td>$93,686.14</td>
</tr>
<tr>
<td>1918-5th year</td>
<td>$64,919.03</td>
<td>$54,919.03</td>
<td>$119,838.06</td>
</tr>
<tr>
<td>1919-6th year</td>
<td>$77,994.99</td>
<td>$67,994.99</td>
<td>$145,989.98</td>
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<tr>
<td>1920-7th year</td>
<td>$91,070.95</td>
<td>$81,070.95</td>
<td>$172,141.90</td>
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<tr>
<td>1921-8th year</td>
<td>$104,146.91</td>
<td>$94,146.91</td>
<td>$198,293.82</td>
</tr>
<tr>
<td>1922-9th year</td>
<td>$117,222.87</td>
<td>$107,222.87</td>
<td>$224,445.74</td>
</tr>
</tbody>
</table>

4. The Act further provides that the extension work is to be carried on in a manner mutually agreed upon by the Secretary of Agriculture, acting through the States Relations Committee and the College. Before the Federal funds become available, plans for the work must be approved in Washington.

**Conduct of the Work:**

The Trustees of Clemson College have entered into an agreement with Winthrop College, whereby that institution will become a co-agent to administer the home economics work and spend thereon 25 per cent or whatever funds result from appropriations made by the Legislature, (or agency other than Clemson College,) and funds from counties, Federal Bureaus, etc.

In addition to the funds provided under the Extension Act, the U. S. Department of Agriculture contributes liberally from its general funds, and a small additional amount is contributed by counties, chambers of commerce, banks, etc.

The first appropriation made by the Legislature was at the 1915 session, $15,691.00. This fund was available during the fiscal year July 1, 1915 to June 30, 1916. The Second appropriation, $31,380.00 made at the 1916 session, was used during the fiscal year covered by this report. The second appropriation was $2,612.89 more than was required under the terms of the Lever Act, an error having been made by me in reporting the amount to the Ways and Means Committee. The small additional amount was used to very great advantage.
The following is a statement of the expenditures administered by the Extension Division for the fiscal year July 1, 1916 to June 30, 1917.

(1) Federal Smith-Lever Fund -------------- $ 38,767.11
(2) State Appropriation Smith-Lever Fund -- 31,382.00
(3) College Contributions (Clem. & Winthrop) 6,447.57
(4) County Contributions ------------------ 33,838.36*
(5) Other South Carolina Sources ------------ 7,881.90‡

Total ---------------------------------- $118,316.94

In addition to the above, the U. S. Department of Agriculture expended approximately $75,000 for salary and travel of specialists, salaries of county and home demonstration agents, etc. These funds were paid direct from Washington and there is no record of them in the Extension Division of the College.

The three lines of service of the Agricultural Department are Resident Teaching, Research and Extension. As stated elsewhere in this report, Dr. F. H. H. Calhoun is the Director in charge of Resident Teaching, Prof. H. W. Barre, Director in Charge of Research, and Prof. W. W. Long, Director in Charge of Extension. All three of these Directors must of necessity work through the medium of the subject-matter division, such as Botany, Horticulture, Dairying, Animal Husbandry, etc. The chief of each subject-matter division under the supervision of the three Directors has immediate charge of conducting the work in three distinct lines. The Extension Work of Divisions is mutually agreed upon by the Chief of that Division, and the Director of Extension. It is embodied into a project and then under the general supervision of the Director of Extension, is executed by the Chief of the subject-matter division. All technical correspondence coming to the Extension Division is necessarily referred to the various subject-matter divisions who give the required expert advice or information. The above form of organization which approaches the ideal for an Agricultural College, precludes the idea of disassociating the Ex-

* Chiefly for Home Demonstration Work.
‡ From Chambers of Commerce, Banks, etc.
tension Division from the body of the Agricultural Department. In fact, the Extension Division must be the mouth-piece of the Department, and cannot speak with authority except as supported by the experts in the various lines of Agriculture.

Special attention is directed to the report of the Director of Extension which is attached to this report. This report gives quite fully the activities of the Extension Division during the fiscal year under consideration. It is only necessary to read this report to form an impression of the wide scope of the Extension work and the great benefit it is bringing to the people of South Carolina.

Of special interest is the report of the County Agent Work which is directed from the office at Clemson. The Home Demonstration Work is directed from the office at Winthrop College under the immediate supervision of Miss Parrott.

As an evidence of the policy of selecting only well-prepared men for the position of County Agent, the fact may be cited from Mr. Long's report that of forty-one county agents on the roll June 30, 1917, twenty-nine of them are graduates of Clemson College, six are graduates of the Agricultural Colleges of North Carolina and Mississippi, and of the remaining six, four are graduates of non-agricultural colleges and two are graduates of high schools.

During the fiscal year the County Agents visited 9,919 farms, representing 362,927 acres. In all they made 50,860 visits, traveling 267,244 miles. In addition to this specific service, the County Agents have responded to every reasonable call made upon them and their service in connection with National Food Conservation and Production have been especially noticeable.

While attention of the State has been largely directed to the great European War, the Extension Division has not forgotten the fact that the boll weevil has already reached the borders of the State, and therefore is putting forth extra efforts to stimulate the introduction of pure bred live stock, and the development of the live stock, dairy and hog industries in the State.
Maps contained in Dr. Lewis' report show more clearly than can any argument the rapid progress of the tick eradication work. Likely in one more more year the State will be released from quarantine in its entirety, and dairying and stock raising will then take proper place in a diversified agriculture, which is the necessary preparation for the coming of the boll weevil.

It is generally recognized by the citizens of the State that the Legislature has never made a better investment than in the annual appropriation during the past four years for this tick eradication work. It is not necessary to argue for the continuation of an appropriation so manifestly wise, and one so universally approved.

PART VII. THE SOUTH CAROLINA EXPERIMENT STATION AND BRANCH STATIONS.

The report of the College would be incomplete without reference to the work of the Experiment Station, upon which all the other agricultural work of the College primarily rests. Agricultural Research must be the foundation both of Agricultural Teaching and Extension.

The parent Station at Clemson, together with the Branch Stations at Florence and Summerville, are constantly engaged in experiments to determine new facts of importance and value to South Carolina agriculture.

Upon the retirement of Director J. N. Harper, Prof. H. W. Barre, Professor of Botany and Bacteriology, was elected Director of the Station. Prof. Barre brings to his work a large experience in scientific research as well as in practical farming. He is a native of Lexington County, a graduate of Clemson College and of the University of Nebraska, and has been a member of our agricultural faculty since March 1908.

The full report of the Experiment Station appears as part of this report. Your attention is directed to the list of important experiments now in progress. The following are mentioned as illustrative of what is being done:

A study of the factors influencing earliness in cotton.
Experiments to determine the relation that exists between soil types and the length of cotton fibre.
Variety and fertilizer tests with peanuts.
Experiments and methods of gathering and handling velvet beans.
Experiments to determine the value of velvet bean meal and soy bean meal in rations for dairy cows.
Experiments to determine the cause of inferior texture common to Southern butter.
Comparison of corn meal and rice meal in pork production.
Experiments for control of anthracnose in cotton.
Experiments to determine the best methods of controlling angular leaf spot of cotton.
Breeding of varieties of cotton resistant to wilt and drought.
Investigation of new serious disease of corn.
Investigation of wire worm and methods of control.
Breeding Irish potatoes for improvement in quality and yield.
Experiments in growing onions from seed.
Experiments for controlling pear blight.
Tests to determine comparative yield of male and female asparagus plants.
Fertilizer experiments of corn and cotton.
Study of the value of sulphur in rendering raw phosphate available.
Determination of practical ways of saving potash from wood ashes and saw dust.
Etc. etc.

At the Pee Dee Station, a very important line of crop experiments are under way, including variety tests with sweet potatoes, breeding work with peanuts, variety tests with soy beans, tests to determine comparative value of hog crops, etc.

At the Coast Station, many of the above experiments are repeated under the coastal plain conditions. Among special experiments at this Station may be mentioned experiments in reforesting the cut-over pine lines of the coastal plain, tests of Bermuda grass, white clover and lespedeza for pastures, special experiments for determining variety tests of cotton in connection with boll weevil conditions, etc.

The cost of the Experiment Station is borne by the Federal Department under the Hatch and Adams Funds. For this reason the expenditures are not included in the College Budget, but are made subject of a separate report.
The fiscal year covered by this report ended June 30, 1917, six months ago. As you read this report, we are in the midst of another session, and another fiscal year. A brief statement covering the current session should be added to make the report complete.

**Enrollment, Classification, etc:**

At a recent meeting of the American Association of Agricultural Colleges and Experiment Stations held in Washington, the fact was brought out that on the average attendance at the Land Grant Colleges of the nation had been reduced approximately one-third. Some had suffered more than this. Against this discouraging background, Clemson's record of enrollment is especially gratifying, and while not quite up to the attendance of last session, *exceeds the average of the past three sessions*. For the three sessions previous to this, the average total enrollment was 803, this session it was 806. The average size of the Freshman Class for the past three sessions was 313. This session it is 301.

The following information in regard to the students in College this year may be of interest. The average age is 19 years, 1 1/2 months. The sons of parents who are now or have been farmers number 561, or 73.3 per cent.

The students in College are distributed as follows:

In the Agricultural Courses 57.6 per cent.
In all other courses 42.4 per cent.

There were in effect this session 124 regular four-year scholarships, 19 one-year agricultural scholarships from the State at large, and twenty-five scholarships in the One Year Agricultural Course. Of this total, 152 scholarships are in the Agricultural
Courses and 16 in the Textile Course. Of the total number holding scholarships, 69.6 per cent are farmers sons and 30.4 per cent are the sons of merchants, lawyers, etc. Some of the latter are in the Textile Course for which mill experience rather than farm experience is desirable.

R. O. T. C.

The Reserve Officers' Training Corps this session fully organized with 23 members of the Senior Class, and 102 in the Junior Class in the advanced course, and 197 of the Sophomore Class and 248 in the Freshman Class in the basic course. Juniors and Seniors are allowed their choice of entering the advanced course of the Reserve Officer's Training Corps, but under the laws governing the Land Grant Colleges, all Freshmen and Sophomores who are physically fit are required to take the first two years of training. Only 27 members of the two lower classes were found physically unfit. There would have been a much larger number of Senior students in the course but for the fact that the War Department refused to accept any but those most competent in military lines, this being the College's first year in the Reserve Officers' Training Corps, and the Senior Classmen not having had the perscribed course of the Junior year.

Students Within the Draft Age:

There are in the College 72 students who are registered under the selective draft. Of these, 28 are Seniors, 21 Juniors, 15 Sophomores, 6 Freshmen and One Year Agricultural men and two post graduates. Many of these students are making application for admission into the third officers' training camps.

Upon the Faculties' recommendation, the Board of Trustees made a ruling that any student in the Senior Class in satisfactory standing who enters the officer's training camp or any other branch of the national service, shall be given his degree without
completion of the year. Under-classmen in good standing who enter the service of the country are to be given “war certificates” certifying to their honorable discharge and crediting them with the work of the entire session.

Increase in Living Expenses:

On account of the great increase in the cost of provisions, coal, etc. it was necessary with the beginning of the second quarter, November 26, to increasing the living expense charges of cadets as follows:

Board from $9.00 to $12.00 per month; Laundry from $1.00 to $1.15 per month, and Heat, Light and Water from $1.00 to $1.35 per month.

These increases were very regretfully made by the Board, who desire to keep the cost of education at Clemson as low as possible. The necessity of the increase was generally recognized by the parents as well as by the students and there has been no complaint.

A Fiscal Statement:

In the fiscal year preceding the out break of the European War (1913-1914) the receipts from the fertilizer tax amounted to $276,000.00. The next year, (1914-1915) the income from the same source dropped to $155,859.76. That year the College would have been unable to operate its usual program but for an accumulated balance on hand of $67,192.84.

The second year of the war (1915-16) the fertilizer tax was $171,018.52. This was the year that the College had to borrow on authority of the State, not from the State, $62,400.00 to make up for the diminished tax. Before the year closed, $21,522.44 was paid back on the loan.

Last fiscal year (1916-17) the year covered by this report, the fertilizer tax reached $216,432.49, still lacking $59,567.51 of
reaching the ante-bellum figure. The General Assembly of 1917 gave permission to defer further payment on the loan for five years, (see page 17 of this report) as a result the College got through the year without borrowing, and at its close, June, 30, 1917, had on hand a cash balance of $59,077.05. Of this amount $10,000.00 was set aside towards paying the balance due on the loan due in 1922. The remainder was necessary to help carry the College during the first six months of this fiscal year, July 1, to January 1, during which period the sale of fertilizer is comparatively light.

Prospects for Fertilizer tax in 1917-18:

From the best opinion available, the fertilizer tax this year is not likely to exceed that of 1916-17, even if it equals it. The still present lack of potash, the pressure on the sulphuric acid supply for munition manufacture, and the lack of ships in which to transport Chilean nitrate and European tankage, makes the outlook one of the reduced output and high cost. Along with these factors must be counted the limitations in transportation.

Pressing Needs:

It is hoped that the fertilizer tax of this year will not fall below that of last, but rather may go beyond. Approximately $210,000 from this source is necessary to pay the routine running expenses of the College and Public Work. For three years now the College has been on a starvation basis as far as building and equipping go. Many of the scientific laboratories are needing new and additional equipment to keep them efficient and up to date.

A cadet hospital and a safe and satisfactory water supply are being annually urged upon the College by the State Board of Health. The cost of these will be at least $30,000.
A greatly needed addition to the Engineering Building stands partly completed awaiting the further expenditure of $7,000 to finish it.

The Agricultural Department is now congested and must as soon as possible have additional rooms for teaching and research. A college the size of Clemson without a gymnasium, in which, the physical side of the students can be developed, is anomaly, and yet the proper plant for this important feature of college training cannot be provided for less than $50,000.

There are many other needs, I have listed only the most obvious and pressing.

*Cooperative Work Under the Smith-Hughes Vocational Educational Act:*

Under the ruling of the Federal Vocational Board, it is clear that the training of teachers in agriculture will be one of Clemson's special privileges. Because of the great need of teachers, it is hoped that the University and Winthrop also will share in this privilege.

In my judgment, this teacher-training is one of the greatest services the college can render to the commonwealth. In fact, no greater work presents itself to agricultural colleges than the training of teachers and leaders in agricultural and technical lines. It is this work, (far more important than the mere training of farmers,) which after all justifies their existence and their cost.

Under the terms of the Smith-Hughes Act, half the cost of the teacher-training work is borne by the College and the other half by the Federal Treasury.

The State law known as the Smoke-Rector Act, fixes the minimum salary of agricultural teachers in the schools at $1,500. It is hoped that with this attractive salary, many of our young
men will select the teacher-training work. Another teacher will have to be added to our Division of Agricultural Education to meet the Federal requirement.

The Smoke-Rector Act also provides for a State Superintendent of Agricultural Instruction in the schools, and to this place the State Board of Education elected our Prof. Peterson. Half of his salary will be paid from Federal sources and half from the College. In his service to the schools, Prof. Peterson works under Supt. Swearingen and the State Board of Education, which is also the "State Vocational Board."—The Extension Division pays Prof. Peterson's traveling expenses.

Another important duty which the College must perform is the training of teachers for textile night schools and part-time schools. This will probably have to be done on the Extension rather than resident plan. Details for this work and now under consideration will be developed just as fast as possible.

Tick Eradication Work:

As is shown by Dr. Lewis' admirable report, the work of tick eradication has progressed until only ten counties remain to be freed. It is hoped that one more $30,000 appropriation will be sufficient to practically complete the job and free the State entirely from the federal quarantine. Such a result cannot, however, be guaranteed, as the eradication work in the coast counties is slow and expensive.

Appropriation Under the Lever Act:

As shown elsewhere in this report, the U. S. Department is expending a very large sum of money on Home Economics and Demonstration and Extension Work in South Carolina. The appropriation that should be made at this session of the Legislature to enable us to get the full benefit for South Carolina is $54,919.03. This is a small sum indeed compared to the $208-
425.45 which the State will receive from other sources. In his report on the Extension Work, Director Long has explained fully how this money will be spent.

It is hoped and expected that the Legislature will not forget the special need for assistance to our farmers at this time when organized machinery must be available to carry out national plans for food production and conservation, and to prepare our farmers for the coming of the boll weevil already entrenched on South Carolina soil. Such an appropriation is an investment in the very largest sense of the term, an investment the returns from which will fully justify the wisdom of its making.

*Establishment of an office of Live Stock Sanitary Work in Columbia:*

Under date of January 27, 1917, the following communication was received from the Secretary-Treasurer of the South Carolina Live Stock Association:

"Whereas, the center of live stock interest is drifting eastward and towards the coast, and whereas Clemson College in the extreme western part of the State, be it resolved that the office for Field Sanitary Work and Distribution of Serum and Vaccine be located centrally in Columbia, where every part of the State can be readily served within a few hours. We believe the additional cost will be more than met by the additional railroad fare and traveling expenses now necessary in working from Clemson College, not taking into account the loss of time necessary in going back and forth between the College and Columbia in reaching southern and eastern portions of the State.

We feel that the live stock interest of the State can best be served by this arrangement. Therefore, we herewith petition the Trustees of Clemson College to look into this matter."

The resolution was promptly acknowledged and immediately referred to the State Veterinarian. The opinion of that officer was favorable to the proposition, as in line with the policy followed by the College in the tick eradication work.
At the next meeting of the Trustees the matter was taken up and a special committee appointed to consider ways and means for putting the recommendation of the Live Stock Association into effect.

At the July 1917 meeting of the Trustees, the following resolution was adopted:

"That the Legislature be asked for an appropriation of $5,000 for co-operative work in the eradication of bovine tuberculosis and the establishment of an office in Columbia for which to distribute hog cholera serum and to render veterinary service."

The College is now expending on live stock sanitary work from the College office approximately $5,000.00 per annum. Under present financial conditions, with its debt and reduced and uncertain income, this is as much as the College can continue to do.

The reference to bovine tuberculosis is based upon an offer of the Federal Bureau of Animal Industry to enter into a cooperative relation for the eradication of tuberculosis in dairy herds similar in general to the very satisfactory arrangement under which the tick eradication work is now proceeding. The importance of this work cannot be over-estimated. It is a matter of the health of the people as well as the health of animals. As yet South Carolina has a very small percent. of tubercular infection. By eradication of this and careful inspection of incoming animals, the State can be made one of the safest in respect to a disease which is very serious in many of the dairy States of the East and West.

The cooperation of the South Carolina Live Stock Association in this matter is appreciated and its judgment acquiesced in, as this report to the General Assembly will reveal. It is earnestly hoped that the small appropriation necessary to carry out the plan will be made by the Legislature.
Election of Trustees:

With this session of the General Assembly expire the terms of Messrs. B. H. Rawl, J. M. Mauldin and J. J. Evans.

Mr. Rawl is a native of Lexington County, and a graduate of Clemson College. As Chief of the Dairy Division of the U. S. Department of Agriculture, he has a national outlook on Agriculture, and the business of dairying in particular. This makes him of special value on the Board and as a member of its Agricultural Committee. Mr. Rawl has served in all nine years.

Mr. Mauldin, now of Richland County, is also a graduate of the College, and has been a Trustee since 1908. He is Chairman of the Finance Committee of the Board and a member of the Executive Committee also. He is the oldest in point of service of any of the State Trustees, and his large business experience as a banker makes him a valuable adviser in all fiscal and business matters coming before the Board.

Senator J. J. Evans, of Marlboro County, has now had four years experience as a Trustee. He is the only practicing lawyer on the Board. As such his counsel is especially valuable.

Realizing the great value of experience in service on the Board, I earnestly hope that these retiring Trustees will permit of their names being presented for re-election, and that the General Assembly will re-elect them.

Visits of Legislative Committees:

We have found the plan of inviting a few representative Committees of the Legislature to visit the College preferable to inviting the entire body. The objections to giving a general invitation are: The trip is difficult to make in a day. The College facilities for handling and entertaining a large body of visitors are inadequate. Usually less than 75% of four hundred visitors
are members of the General Assembly. The cost of transporting and entertaining so large a body under present conditions would be considerable, probably not less than $2,500.

In spite of these difficulties the General Assembly is very welcome at the College at any time it would like to come.

This year we invited the Ways and Means Committee of the House and the Agricultural Committee of the Senate. Messrs. Liles, Cothren, Toole, Bradford, Rivers, Walker, McLaurin, Strom, Seabrook, Ducan, Duckworth, McCutchen, and Gresham were present from the Ways and Means Committee, and Messrs. Johnstone, Evans, Wharton, Stacy and Manning from the Agricultural Committee.

These gentlemen were given every opportunity to examine into the details of the College plant and its management, and we are entirely willing that the General Assembly shall get its impressions of Clemson College from its own members who have been here and seen for themselves.

**Conclusion:**

This report will pass through your hands to the General Assembly of South Carolina,—that Legislative body which during the entire life of the College, a period of twenty-eight years, has never enacted into law a single measure hostile or mimical to the interests of the institution. On the contrary, it has always given its assistance to all worthy plans which had for their purpose increasing the usefulness of the College to the farmers of the State.

The College comes to the General Assembly in no sense as a suppliant, but as a partner in a great constructive work.

It is not asking for any appropriation for itself.

In expressing the hope that $30,000 be appropriated to continue the State-wide campaign of cattle tick eradication, $54-
919.03 to meet the provisions of the Lever Extension Act, and $5,000 to establish certain phases of live stock sanitary work in Columbia, the College has no selfish interest, but only the desire to serve the State in these lines of public service.

If made, these appropriations will bring definite and substantial returns in the increased prosperity of our agricultural people, and will I am sure merit their approval.

Respectfully submitted,

W. M. RIGGS,
President,
Clemson Agricultural College.

Clemson College, S. C.,
December 1, 1917.

P. S. As required by law, I present herewith a list of students who pay tuition, those who do not, and those who hold scholarships.

I attach also reports of the following officers:

1. The Treasurer.
2. The Auditor.
3. The Board of Visitors.
4. The Director of Experiment Station.
5. The Director of Extension.
6. The Secretary of the Fertilizer Board.
7. The Chief Chemist.
8. The State Entomologist.
10. The Inspector in Charge of Tick Eradication.
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF
TUITION AND HOLDING OF SCHOLARSHIPS

Abbeville County.

Free Tuition—

Baskin, J. L.  Abbeville
Billings, A. K.  Abbeville
Blanchett, L. M.  Abbeville
Gable, J. O.  Iva
Graves, C. C.  Abbeville
Graves, F. H.  Abbeville
Hardin, A.  Lowndesville
Hardin, C.  Lowndesville
Hill, J. R.  Abbeville
Leach, P. J.  Abbeville
Link, J. C.  Abbeville
Mars, J. D.  Abbeville
Thornton, R. F.  Abbeville

Pay Tuition—

Allen, R. G.  Lowndesville
Bradley, W. W.  Abbeville
Clinkscales, Ralph.  Lowndesville
Clinkscales, Ray.  Lowndesville
Harper, G. P.  Lowndesville
Harper, J. K.  Lowndesville
Haskell, A. W.  Abbeville
Leslie, A. E.  Abbeville
Leslie, A. H.  Abbeville
Leslie, F. H.  Abbeville
McGee, C. P.  Due West
Thomson, L. R.  Abbeville

Scholarship—

Graves, H. E.  Abbeville

Aiken County

Free Tuition—

Gallegly, J. M.  Ellenton
Glover, C. B.  Augusta
Harley, J. B.  Ellenton
McCarten, J. L.  Aiken
Parker, J. E.  Graniteville
Sally, J. D.  Sally
Shuler, J. H.  Aiken
Tyler, G. R.  Windsor

Pay Tuition—

Atkinson, F. W.  Augusta
Cato, W. L.  Batesburg
Croft, G. M.  Aiken
Henderson, E. P.  Bath
Holley, H. M.  Aiken
Holley, R.  Aiken
Murray, G. L.  Aiken
McNair, M. P.  Aiken
Sawyer, W. S.  Monetta
Timmerman, F. E.  Trenton
Wiehl, E. A.  Aiken
Williams, L. J.  North Augusta

Scholarship—

Adams, J. P.  North Augusta

Cain, W. C.  Aiken
Hutson, W. M.  Aiken
Woodward, M. B.  Aiken

Anderson County

Free Tuition—

Black, M. J.  Anderson
Bolt, J. B.  Anderson
Bowden, J. H.  Sandy Springs
Bowlan, T. G.  Anderson
Brown, L. W.  Anderson
Carpenter, L. P.  Anderson
Craig, J. M.  Pendleton
McDonald, J. R.  Honea Path
Farmer, L. H.  Anderson
Gaines, H. E.  Honea Path
Gambrell, S. C.  Pendleton
Hall, J. B.  Anderson
Hillhouse, E. L.  Anderson
King, J. L.  Anderson
Langston, L. P.  Anderson
Lay, J. F.  Pendleton
Major, C. S.  Anderson
Martin, J. R.  Anderson
Mays, R. A.  Pendleton
McGee, R. F.  Starr
Owen, C. L.  Pendleton
Parks, F. L.  Anderson
Pruitt, V. O.  Starr
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Ramsey, W. A. Anderson
Shanklin, J. A. Anderson
Shearer, W. A. Anderson
Smith, E. R. Iva
Snelgrove, W. K. Anderson
Tripp, H. B. Easley
Wright, C. R. Honea Path

Pay Tuition—

Balletine, J. R. Anderson
Bannister, S. A. Starr
Bolt, M. Anderson
Bolt, W. H. Anderson
Burns, P. M. Anderson
Campbell, E. U. Anderson
Clark, J. R. Anderson
Day, R. E. Pendleton
Dean, A. E. Starr
Elrod, N. S. Piedmont
Eskew, W. T. Anderson
Garrison, L. C. Pendleton
Garrison, W. H. Pendleton
Geiger, H. W. Anderson
Glenn, B. F. Anderson
Hall, S. W. Pendleton
Harris, L. D. Belton
Herron, W. C. Starr
Hunter, J. Pendleton

Martin, J. B. Liberty
McClure, J. B. Anderson
McCue, C. M. Anderson
McFall, R. E. Anderson
McGee, S. A. Starr
McLees, G. T. Anderson
Paget, F. M. Anderson
Pepper, E. F. Easley
Pickens, W. C. Easley
Power, R. M. Anderson
Richardson, L. P Anderson
Sitton, B. G. Pendleton
Smith, F. L. Anderson
Smith, J. L. Anderson
Smith, R. M. Pendleton
Tollison, P. L. Belton
Watson, R. G. Anderson
Webb, R. W. Anderson
Welborn, M. Pendleton

Scholarship—

Ballard, R. E. Pendleton
Bell, J. C. Anderson
Black, J. M. Anderson
Campbell, R. C. Anderson
Cannon, W. M. Anderson
Farmer, E. F. Greenwood
Garven, J. E. Pendleton

King, R. F. Anderson
Martin, G. H. Anderson
Palmer, W. K. Pendleton
Watkins, C. S. Belton
Welbourne, R. H. Anderson

Bamberg County

Free Tuition—

Faust, J. B. Denmark
Morris, C. C. Olar

Pay Tuition—

Neeley, J. E. Olar

Scholarship—

Bruce, E. C. Bamberg
Rowell, S. T. Bamberg
Zeigler, O. J. Bamberg

Barnwell County

Free Tuition—

Free, C. B. Blackville

Pay Tuition—

Black, E. W. Williston
Black, H. M. Williston

Scholarship—

Henry, J. A. Barnwell
Maner, H. K. Allendale
Still, K. M. Blackville
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Thompson, F. M. 
Williston
Walker, J. M. 
Blackville

Beaufort County

Free Tuition—

Hiers, L. H. 
Beaufort

Pay Tuition—

Crowfut, J. A. 
Beaufort
Keyserling, H. H. 
Beaufort
Marscher, J. F. 
Beaufort
Varn, R. L. 
Beaufort

Scholarship—

Bostick, E. M. 
Beaufort
Nell, J. M. 
Chisolm
Walker, H. 
Beaufort

Berkeley County

Free Tuition—

Harmon, H. M. 
Summerville
Shuler, C. L. 
St. Stephens
Stevens, J. G. 
Moncks Corner
Vardell, W. G. 
Oakley Depot

Pay Tuition—

Porcher, P. R. 
Pinopolis

Scholarship—

McCants, J. O. 
Moncks Corner
Smith, D. P. 
Ridgeville

Calhoun County

Free Tuition—

Corbitt, J. D. 
St. Matthews
Fairey, J. K. 
St. Matthews

Pay Tuition—

Banks, B. C. 
St. Matthews
Holman, R. H. 
St. Matthews
Sanders, W. H. 
St. Matthews
Summers, S. J. 
Cameron
Whetstone, E. D. 
St. Matthews

Scholarship—

Inabinet, N. O. 
Jamison
Keller, H. L. 
St. Matthews

Charleston County

Free Tuition—

Brown, E. T. 
Charleston
Di Yorio, J. J. 
Charleston
DuGar, F. W. 
Charleston
Freeman, W. W. 
Charleston
Jantzen, J. H. 
Charleston
Jervey, T. M. 
Charleston
Johnson, A. H. 
Charleston
Lunden, A. F. 
Mt. Pleasant
McDermid, G. C. 
Charleston
McDermid, J. A. 
Charleston
Murray, J. J. 
Edisto Island
Nowell, A. E. 
Charleston

Nowell, J. L. 
Charleston
Patjens, A. A. 
Mt. Pleasant
Patjens, H. K. 
Mt. Pleasant
Puckhaber, J. H. 
Charleston
Trott, J. R. 
Mt. Pleasant
Ward, W. C. 
Charleston
Witsell, F. L. 
Charleston

Pay Tuition—

Beisley, H. W. 
Charleston
Boyston, C. L. 
Charleston
Cogswell, V. 
Charleston
Davis, G. E. R. 
Charleston
Ferguson, J. R. 
Charleston
FitzSimons, R. C. 
Charleston
Givner, S. 
Charleston
Jessen, H. H. 
Charleston
Klenke, J. H. F. 
Charleston
LaFar, W. H. 
Charleston
Lea, J. L. 
Charleston
Leland, A. M. 
McClellanville
Leland, H. G. 
McClellanville
Lieberman, E. S. 
Charleston
Oswald, R. D. 
Charleston
Porcher, F. C. 
Mt. Pleasant
Rivers, E. L. 
Charleston
Rivers, J. D. 
Charleston
Schrimer, W. 
Charleston
Schwettmann, F. W. 
Charleston
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Seabrook, T. H. T.
Charleston
Sellers, A. R.
Charleston
Stender, B.
Charleston
Stender, C. H.
Charleston
Tamsberg, C. T.
Charleston
Wieters, A. W.
Charleston

Scholarship—
Bunch, E. T.
Charleston
Corcoran, A. C.
Charleston
Fraser, H. E.
Mt. Pleasant
Freeman, W. T.
Charleston
Hanckel, A. S.
Charleston
Leland, J. M.
McClellanville
Mikell, P. H.
Edisto Island
Mitchell, C. A.
Edisto Island
Nimitz, H. J.
Charleston

Cherokee County

Free Tuition—
Hester, T. J.
Gaffney
Hobbs, K. O.
Blacksburg
Hollifield, J. F.
Cherokee
Moore, L. F.
Blacksburg

Pay Tuition—
Cash, C. B.
Gaffney
Hamrick, L. A.
Gaffney
Jeffries, J. D.
Pacolet

Jeffries, W. N.
Pacolet
Pridemore, R. M.
Gaffney
Wilkins, R. T.
Gaffney

Scholarship—
Allison, J. W.
Blacksburg
Black, J. C.
Gaffney
Huggins, C. B.
Gaffney
Roberts, R. J.
Kings Creek

Chester County

Free Tuition—
Anderson, S. A.
Chester
Yarborough, J. H.
Lowryville

Pay Tuition—
Anderson, E. T.
Lowryville
Cornwell, M. M.
Chester
Hardin, L. G.
Chester
Pressley, J. H.
Chester
Reid, D. C.
Richburg
Spratt, T.
Chester
Thomas, R. H.
Chester
Worthy, H. C.
Union

Scholarship—
Atkinson, L. A.
Lowryville
Atkinson, R. L.
Lowryville
Bankhead, J. B.
Chester
Ligon, H. Y.
Blackstock
Sanders, D. A.
Richburg
Stevenson, W. B.
Richburg
Thomas, H. L.
Edgemoor,

Chesterfield County

Free Tuition—
Thrower, W. H.
Cheraw

Pay Tuition—
Harrall, H. C.
Cheraw
McAlm, D. H.
Cheraw
McAlm, T. A.
Cheraw

Scholarship—
Buie, T. S.
Patrick
Coward, C. C.
Cheraw
Thrower, G. G.
Cheraw

Clarendon County

Free Tuition—
Burgess, R. L.
Manning
Sauls, M. L.
Manning

Pay Tuition—
Brailsford, A. P.
Summerton
Brogdon, S. J.
Alcolu
Cantey, J. S.
Summerton
Coskrey, E. C.
Wilson
Montgomery, I. P.
Mayesville

Scholarship—
<table>
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<tr>
<th>Classification of Students as Regards Payment of Tuition and Holding of Scholarships — (Continued)</th>
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<td>Burgess, J. W. Manning</td>
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<td>Lide, F. P. Alcolu</td>
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<td>Colleton County</td>
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<td>Free Tuition —</td>
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<td>Marvin, J. P. White Hall</td>
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<td>Risher, P. W. Smoaks</td>
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<td>Pay Tuition —</td>
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<td>Cannon, P. B. White Hall</td>
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<td>Hubster, E. G. Walterboro</td>
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<td>Liston, J. W. Smoaks</td>
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<td>Marvin, R. White Hall</td>
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<td>Padgett, G. D. Walterboro</td>
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<td>Free Tuition —</td>
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<td>Allen, O. B. Darlington</td>
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<td>Ellis, C. H. Hartsville</td>
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<td>Free Tuition —</td>
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<td>Allen, J. P. Colliers</td>
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<td>Broadwater, N. L. Yemassee</td>
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<td>Hughes, B. T. Johnson</td>
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Kenney, F. M.  
Johnson  
Spearman, J. H.  
Trenton  

Pay Tuition—  
Hollingsworth, D. F.  
Edgefield  
Hollingsworth, W. S.  
Edgefield  
Mays, W. H.  
Edgefield  
Timmerman, N. D.  
Edgefield  
Tompkins, J. G.  
Edgefield  
Mathis, D. T.  
Colliers  
Robertson, J. M.  
Plum Branch  
Salter, H. D.  
Trenton  
Salter, T. P.  
Trenton  
Smith, C. B.  
Clarks Hill  

Fairfield County  

Free Tuition—  
Brown, H. W.  
Winnsboro  
Cathcart, J. L.  
Winnsboro  
Cathcart, R. S.  
Winnsboro  
Dunlap, W. M.  
Rockton  
Glenn, H. Y.  
Wallaceville  
Hamilton, L. A.  
Rockton  
Jordan, T. M.  
Winnsboro  
Ladd, J. A.  
Strother  
Shedd, R. R.  
Monticello  

Pay Tuition—  
Blair, J. D.  
Strother  

Glenn, W. T.  
Jenkinsville  
MeEachern, D. M.  
Longtown  
MeEachern, J. J.  
Longtown  
McMeekin, A. H.  
Monticello  
Reeves, E. E.  
Longtown  
Reeves, F. M.  
Ridgeway  
Roberts, E. R.  
Monticello  
Sloan, E. D.  
Winnsboro  

Pay Tuition—  
Cole, W. P.  
Ebeneezer  
Ham, M. A.  
Florence  
Huggins, C.  
Timmonsville  
Huggins, E.  
Timmonsville  
McDermon, D.  
Florence  
Tomlison, E. I.  
Olanto  

Scholarship—  
Graham, S. W.  
Coward  
Graham, W. C.  
Coward  
McCown, M. T.  
Florence  
Moore, J. H.  
Florence  
Sansbury, L. S.  
Bannockburn  
Truette, L. T.  
Timmonsville  

Georgetown County  

Pay Tuition—  
LaBruce, J. L.  
Waverly Mills  
Pyatt, E. N.  
Georgetown  
Rosa, W. E. S.  
Georgetown  
Wilcox, C. A.  
Murrells Inlet  

Scholarship—  
Bailey, R. W.  
Georgetown  

Greenville County  

Free Tuition—  
Bellotte, T. R.  
Greenville  
Berry, J. F.  
Greenville
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Brown, S. R. Piedmont
Bryant, W. H. Greenville Chapman, C. F. Pelzer
Pitman, W. A. Greenville

Pay Tuition—

Allison, W. A. Greenville Black, W. L. Greer Cooper, J. L. Greenville Durham, G. H. Honea Path
Going, O. F. Greenville
James, L. C. Greenville Kellet, J. P. Fountain Inn
McHugh, F. Greenville
McHugh, J. F. Greenville West, W. R. Greenville Wright, H. L. Greenville

Scholarship—

Bomar, W. E. Greer

Bryan, G. Greenville
Kendrick, C. T. Taylors
Peden, E. C. Fountain Inn
Poole, J. C. Travelers Rest
Proctor, W. G. Ninety Six
Robertson, J. H. Greenville

Greenwood County

Free Tuition—

McCord, A. S. Hodges
McCord, M. M. Hodges
Reynolds, H. L. Greenwood

Pay Tuition—

Aldrich, R. Greenwood
Clinkscales S. M. Greenwood
Jones, D. R. Greenwood
Payne, H. D. Ninety Six
Reynolds, E. H. Greenwood
Seal, J. H. Greenwood
Wade, J. L. Greenwood

Scholarship—

Allen, F. M. Greenwood

Bradford, Z. B. Greenwood
Kennerly, W. J. Greenwood
Martin, G. C. Ninety Six

Hampton County

Free Tuition—

Varn, W. C. Varnville

Pay Tuition—

Baxter, C. L. Garnett
Kittles, T. J. Garnett
Lawton, W. H. Garnett
Lawton, B. E. Garnett
Lightsey, L. M. Brunson
Rentz, N. G. Varnville

Scholarship—

Lightsey, O. P. Brunson

Horry County

Free Tuition—

Altman, D. M. Gallivants
Altman, V. H. Gallivants
Clardy, W. C. Wampee
Hardee, F. W. Conway
Lupo, G. M. Green Sea

Pay Tuition—

Butler, G. R. Loris
Derham, J. H. Green Sea
Sessions, C. J. Conway
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Worley, S.
Tabor, N. C.

Scholarship—
Ayers, T. L.
Tabor, N. C.
Derham, J. P.
Green Sea
Floyd, F. E.
Tabor, N. C.
Stalvey, D. I.
Myrtle Beach

Jasper County

Free Tuition—
Jenkins, J. H.
Ridgeland

Pay Tuition—
Garbade, G. E.
Ridgeland

Scholarship—
Manuel, J. L.
Gillisonville
Thompson, J. W.
Ridgeland

Kershaw County

Free Tuition—
Holley, A. F.
Jefferson
West, T.
Camden

Scholarship—
Richards, A. J.
Liberty Hill
Rush, J. D.
Camden
Williams, C. L.
Camden

Lancaster County

Free Tuition—
Craig, J. W.
Lancaster

Pay Tuition—
Blackmon, C. A.
Lancaster
Culp, W. C.
Lancaster
Hough, J. T.
Lancaster
Hough, S. E.
Lancaster

Scholarship—
Blackmon, L. A.
Heath Springs
Caskey, A. J.
Lancaster
Patterson, C. E.
Fort Mill
Potts, R. C.
Fort Mill
Sowell, L. C.
Lancaster

Laurens County

Free Tuition—
Burdett, L. W.
Clinton
Crisp, W. R.
Laurens
Davis, G. H.
Clemson College
Freeman, G. E.
Honea Path
Garrett, C. S.
Laurens
Horton, J. H.
Clinton
Johnson, D. W.
Laurens
Leppard, B. T.
Clemson College
Middleton, J. A.
Clemson College
Owen, J. Q.
Laurens
Poole, R. F.
Gray Court
Richbourg, S. E.
Clinton
Williams, J. B.
Laurens
Wofford, J. W.
Laurens

Scholarship—
McDaniel, G. E.
Laurens
Davis, W. M.
Honea Path
DeShields, T. A. R.
Lanford
Rogers, E. L.
Gray Court
Taylor, R. H.
Laurens
Thomason, J. F.
Gray Court
Washington, W. H.
Ware Shoals

Lee County

Free Tuition—
Stuckey, J. M.
Bishopville

Pay Tuition—
Armstrong, F. E.
Laurens
Copeland, G. E.
Reno
Copeland, I. B.
Reno
Copeland, T. J.
Clinton
Dial, J. C.
Laurens
Dunlap, R. T.
Laurens
Franks, C. H.
Laurens
Philpot, L. A.
Laurens
Roper, C. P.
Laurens
Roper, T. H.
Laurens
Scurry, R. L.
Chappells
Sullivan, D. H.
Laurens
Scalf, W. M.
Clinton
Wilkes, E. H.
Laurens

Dial, J. C.
Laurens
Dunlap, R. T.
Laurens
Franks, C. H.
Laurens
Philpot, L. A.
Laurens
Roper, C. P.
Laurens
Roper, T. H.
Laurens
Scurry, R. L.
Chappells
Sullivan, D. H.
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Scalf, W. M.
Clinton
Wilkes, E. H.
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Dunlap, R. T.
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Franks, C. H.
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Philpot, L. A.
Laurens
Roper, C. P.
Laurens
Roper, T. H.
Laurens
Scurry, R. L.
Chappells
Sullivan, D. H.
Laurens
Scalf, W. M.
Clinton
Wilkes, E. H.
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Dunlap, R. T.
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Franks, C. H.
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Philpot, L. A.
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Roper, C. P.
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Roper, T. H.
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Scurry, R. L.
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Scalf, W. M.
Clinton
Wilkes, E. H.
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Dunlap, R. T.
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Franks, C. H.
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Philpot, L. A.
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Roper, C. P.
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Roper, T. H.
Laurens
Scurry, R. L.
Chappells
Sullivan, D. H.
Laurens
Scalf, W. M.
Clinton
Wilkes, E. H.
Laurens

Dial, J. C.
Laurens
Dunlap, R. T.
Laurens
Franks, C. H.
Laurens
Philpot, L. A.
Laurens
Roper, C. P.
Laurens
Roper, T. H.
Laurens
Scurry, R. L.
Chappells
Sullivan, D. H.
Laurens
Scalf, W. M.
Clinton
Wilkes, E. H.
Laurens

Dial, J. C.
Laurens
Dunlap, R. T.
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Pay Tuition—

McKenzie, W. J. Bishopville
Weatherly, H. L. Bishopville

Scholarship—

Lemmon, W. T. Elliott
Player, C. B. Elliott
Welsh, E. A. Elliott

Lexington County

Free Tuition—

Cullum, U. X. Batesburg
Fulmer, J. W. Elliott
Miller, J. C. Lexington
Wingard, H. H. Lexington

Pay Tuition—

Kaufman, J. B. Lexington
Lever, F. M. Chapin
Watson, E. P. Batesburg

Scholarship—

Bachman, C. A. Swansea
Harmon, C. C. Lexington
Harmon, G. E. Lexington
Lewis, M. J. Steadman
Parler, J. W. Batesburg
Schneider G. F. Lexington

Marion County

Free Tuition—

Brown, J. O. Marion
Herring, L. C. Gresham
McMillan, D. G. Marion
Rowell, J. B. Marion
Smith, A. G. Mullins
Tenhet, J. N. Marion

Pay Tuition—

Baker, O. E. Nichols
Hewitt, W. L. Marion
Hunter, J. T. Marion
Monroe, D. E. Marion
Montgomery, H. D. Marion
Reeves, G. H. Mullins
Rogers, W. B. Mullins
Short, W. J. Buena Vista, Ga.

Scholarship—

Blackwell, W. M. Marion
Rowell, E. M. Marion
White, W. T. Centenary

Marlboro County

Pay Tuition—

Atkinson, C. N. Blenheim
Townsend, A. S. Bennettsville

Pay Tuition—

Bingham, I. W. McColl

Covington, O. F. Clio
Crosland, T. M. Bennettsville
Fletcher, L. C. McColl
Green, J. B. Bennettsville
Gibson, A. T. Marlboro
Hodges, K. B. Brownsville
McIntyre, J. M. Clio
Pegues, V. R. Kollock
Rogers, J. P. Bennettsville

Scholarship—

Heiss, M. W. Clio
Sherrill, C. I. Bennettsville

McCormick County

Pay Tuition—

Allston, J. N. McCormick
Covin, M. S. Willington
Grant, F. Mt. Carmel
Parks, W. H. Parksville
Stone, W. L. Parksville

Scholarship—

Britt, J. A. McCormick

Newberry County

Free Tuition—

Abrams, W. H. Newberry
Boozer, T. B. Silver Street
Fellers, L. H. Prosperity
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Havird, H. M. Silver Street
Hunter, W. E. Prosperity
Nance, D. L. Newberry
Quattlebaum, H. L. Prosperity

Pay Tuition—

Berly, R. H. Pomaria
Douglass, F. K. Whitmire
Mayes, W. T. Newberry
Mills, C. S. Prosperity
Sanders, C. W. Silver Street
Singley, L. K. Prosperity
Suber, F. L. Whitmire
Wise, G. S. Prosperity

Scholarship—

Aull, G. H. Pomaria
Bedenbaugh, D. A. Prosperity
Folk, M. H. Pomaria
Hentz, H. M. Pomaria
Herbert, J. E. Newberry
Long, E. W. Prosperity

Orangeburg County

Free Tuition—

Barker, C. E. Mountain Rest
Burley, M. M. Walhalla
Gordon, W. W. Clemson College
Henderson, S. A. Clemson College
Meares, W. A. Westminster

Pay Tuition—

McHugh, M. L. Clemson College
Peters, S. G. Clemson College
Shelton, F. L. Clemson College
Shiver, N. C. Clemson College
Steudman, B. K. Clemson College
Sylvester, J. C. Clemson College
Wilbanks, W. C. Clemson College

Pay Tuition—

Austin, W. L. Seneca
Burgess, T. H. Seneca
Cary, J. L. Seneca
Dorn, A. M. Westminster
England, W. L. Westminster
Furman, J. C. Clemson College
Lynch, G. B. Walhalla
McMahan, D. J. Richland
Stribling, B. H. Richland
Walker, A. R. Seneca
Zimmerman, J. H. Westminster

Scholarship—

Fant, G. W. Walhalla
Moore, W. D. Seneca
Singleton, G. H. Westminster
Singleton, J. M. Westminster

Orangeburg County

Free Tuition—

Gelzer, J. W. Orangeburg

Pay Tuition—

Biggerstaff, C. C. Rowesville
Dantzler, L. M. Vance
Dukes, L. T. Rowesville
Edwins, R. C. Orangeburg
Fairey, F. W. Rowesville
Felder, H. H. Vance
Gilmore, L. H. Holly Hill
Herbert, W. C. Orangeburg
McCants, C. Y. H. Cameron
Parler, S. B. Elloree
Patrick, G. B. Bowman
Thackston, L. P. Orangeburg
Walter, E. R. Cope
Way, J. W. Orangeburg
Wolfe, C. E. Orangeburg
Whisenhunt, H. L. Orangeburg
Wright, T. W. Branchville

Scholarship—

Whitaker, W. L. Orangeburg
Williams, W. C. Eutawville
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Wolfe, F. U.
North
Wolfe, J. J.
North

Pickens County

Free Tuition—

Chapman, H. R.
Liberty
Curtis, C. H.
Easley
Edens, A. H.
Pickens
Folger, T. A.
Central
Hunters, J. W.
Liberty
Hutchings, J. M.
Liberty
Hutchings, W. D.
Liberty
Johnson, W. B.
Easley
Johnson, W. C.
Easley
Parkins, D. F.
L. L.
Richburg, M. E.
Liberty
Richburg, L. L.
Liberty

Pay Tuition—

Boggs, A. J.
Pickens
Boggs, O. B.
Pickens
Chambliss, P. B.
Clemson College
Gaines, R. G.
Central
Hendricks, D.
Easley
Kay, L. R.
Easley
Kelley, S. C.
Central
Williams, B. O.
Easley

Scholarship—

Ellison, R. J.
Easley

Jones, J. D.
Liberty
Jones, S. C.
Easley
McClanahan, P.
Liberty

Richland County

Free Tuition—

Bates, J. M.
Waterree
Dwight, C. M.
Eastover
Hinnant, E. D.
Bookman
Kelley, H. C.
Congaree
Moseley, C. W.
Columbia
Rawl, J. H.
Columbia
Timmerman, P. N.
Columbia

Pay Tuition—

Eleazer, J. A.
Columbia
Eleazer, L. H.
Chapin
Ford, C. R.
Columbia
Haltiwanger, D.
Columbia
Hoefer, F. S.
Columbia
Hunter, J. E.
Columbia
Lowman, J. M.
Ballentine
Madden, A. A.
Columbia
McClanahan, P.
Columbia
Quattlebaum, W. M.
Columbia
Rice, S. M.
Columbia
Rodgers, W. S.
Columbia
Stork, R. C.
Columbia
Zobel, J. H.
Columbia

Scholarship—

Amick, J. C.
Irmo
Brown, J. M.
Bookman
Gee, J. G.
Columbia
Lomas, J. S.
Columbia
Price, G. W.
Columbia
Watkins, J. S.
Columbia

Saluda County

Free Tuition—

Bodie, H. D.
Batesburg
Chapman, F. A.
Ward
Powell, J. H.
Johnston
Stanford, Hugh
Leesville
Wheeler, G. C.
Saluda

Pay Tuition—

Carson, W. O.
Saluda
Chapman, A. B.
Ward
Kempson, J. M.
Silver Street
Pitts, J. H.
Saluda
Pitts, R. C.
Saluda

Scholarship—

Bodie, D. D.
Batesburg
Etheredge, M. P.
Saluda
Stanford, Hanvey
Leesville
**Spartanburg County**

**Free Tuition**
- Bailey, M. B.
- Cowpens
- Caldwell, A. J.
- Campobello
- Campbell, C. D.
- Inman
- Friday, T. A.
- Pacolet
- Gowen, W. G.
- Inman
- Maybry, W. L.
- Campobello
- Ravenel, D.
- Spartanburg
- Sams, R. H.
- Spartanburg
- Sharp, J. C.
- Woodruff
- Shields, H. L. B.
- Cherokee
- Walker, H. C.
- Spartanburg
- Wingo, R. A.
- Campobello

**Pay Tuition**
- Alverson, R. O.
- Spartanburg
- Anderson, V. T.
- Spartanburg
- Ballenger, A. R.
- Wellford
- Barnes, W. M.
- Spartanburg
- Bishop, W. G.
- Inman
- Brown, C. C.
- Woodruff
- Carpenter, J. B.
- Landrum
- Carson, J. A.
- Spartanburg
- Clement, D. T.
- Inman
- Clement, E. E.
- Inman
- Dula, A. H.
- Spartanburg
- Dunbar, J. Y.
- Spartanburg
- Epps, J. L.
- Spartanburg
- Fitzgerald, J. B.
- Spartanburg
- Gentry, L. M.
- Landrum
- Gray, J. L.
- Woodruff
- Hagood, T. R.
- Spartanburg
- Herring, J. W.
- Spartanburg
- Johnson, H. W.
- Spartanburg
- Murph, W. G.
- White Stone
- McCord, W. L.
- Spartanburg
- Smoak, W. W.
- White Stone
- Vernon, J. E.
- Spartanburg
- West, H. B.
- Spartanburg
- West, L. E.
- White Stone
- Wingo, J. W.
- Spartanburg
- Zimmerman, M. L.
- Spartanburg

**Scholarship**
- Bonner, W. C.
- Chesnee
- Carver, W. A.
- Wellford
- Cox, G.
- Woodruff
- Finger, B. L.
- Fingerville
- Hall, R. A.
- Fair Forest
- Harris, C. G.
- Spartanburg
- O'Dell, J. H.
- Spartanburg
- Parks, T. W.
- Woodruff
- Robertson, T.
- Spartanburg
- Skinner, T. B.
- Woodruff
- Smith, M. B.
- Spartanburg
- Tallevast, W. D.
- Spartanburg
- Willis, H. H.
- Clifton
- Wingo, W. P.
- Campobello

**Sumter County**

**Free Tuition**
- Douglass, J. R.
- Dalzell
- Grier, R. L.
- Mayesville
- Hammond, J. A.
- Sumter
- Young, G. F.
- Rembert

**Pay Tuition**
- Cain, D. J.
- Sumter
- Gillis, J. C.
- Rembert
- Pitts, L. A.
- Sumter
- Purdy, W. H.
- Sumter
- Robinson, J. H.
- Oswego
- Sanders, E. P.
- Dalzell
- Truluck, T. D.
- Lynchburg
- Truluck, W. E.
- Motbridge

**Scholarship**
- Brice, M. M.
- Wedgefield
- Dwight, F. M.
- 2nd Wedgefield
- Kolb, R. F.
- Sumter
- Sanders, H. L.
- Hagood

**Union County**

**Free Tuition**
- Harris, H.
- Union
- Littlejohn, S.
- Jonesville
- Smith, J. H.
- Union
CLASSIFICATION OF STUDENTS AS REGARDS PAYMENT OF TUITION AND HOLDING OF SCHOLARSHIPS—(Continued)

Thomson, W. E. Union
Pay Tuition—
Askew, W. F. Mt. Tabor
Bartles, J. H. Union
Calvert, L. F. Jonesville
Gilliam, J. L. Union
Hudson, R. A. Waxhaw, N. C.
Jeter, M. C. Union
Jones, J. E. Union
Poole, W. R. Union
Wallace, F. M. Union
Young, J. L. Union
Scholarship—
Bishop, R. T. Sedalia
Wallace, W. H. Union
Williamsburg County—
Free Tuition—
Roper, R. L. Leo
Pay Tuition—
Gamble, J. P. Greelyville
Snow, J. J. Henry
Strong, H. H. Kingstree
Scholarship—
Clemons, S. P. Greelyville
McCullough, J. Kingstree
McKnight, L. West Andrews

York County
Free Tuition—
Ashe, J. N. McConnellsville
Barron, A. A. York
Bookout, H. C. Rock Hill
Brown, C. B. Rock Hill
Feemster, R. S. Sharon
Garrison, E. H. Rock Hill
Garrison, F. B. Rock Hill
Kuykendal, C. M. Rock Hill
Kuykendal, F. R. Rock Hill
Matthews, W. A. Clover
Phillips, E. L. York
Poag, L. M. Rock Hill
Smarr, F. L. Bullock Creek
Suggs, G. W. Rock Hill
Barnett, R. M. Rock Hill
Bass, R. E. Rock Hill
Brandon, T. B. McConnellsville
Bratton, R. B. McConnellsville
Caldwell, B. York
Campbell, T. A. Tirzah
Cork, J. C. Rock Hill
Finley, S. R. York
Garrison, F. B. York
Graham, W. T. Rock Hill
Hay, W. S. Rock Hill
Miller, J. N. Rock Hill

Milling, J. W. Rock Hill
Nichols, W. B. Rock Hill
Scholarship—
Brandon, J. D. McConnellsville
Ferguson, L. B. Leslie
Frew, W. L. Rock Hill
Garrison, E. B. York
Howell, W. F. Rock Hill
Kirkpatrick, M. H. Sharon
Plexico R. S. Rock Hill
Young, E. B. Rock Hill
NON-RESIDENT STUDENTS

Pay Tuition

Agnew, H. G.
Canon, Ga.
Allison, H.
Brevard, N. C.
Arthur, H. T.
Richmond, Va.
Bowen, R. A.
Macon, Ga.
Bruce, J. M.
Avalon, Ga.
Burch, H. L.
Dublin, Ga.
Colbert, W. C.
Ardmore, Okla.
Duggan, I. W.
Clayton, Ga.
Ellis, L. C.
Grower, N. C.
Fain, P.
Murphy, N. C.

Garner, R. E.
Cochran, Ga.
Hart, W. L.
Washington, D. C.
Jackson, T. S.
Thomaston, Ga.
Lee, W. D.
Juzde Fora
Minos
Moore, E. K.
Saluda, N. C.
Morecock, E. M.
Phoebus, Va.
McGougan, J. M.
Tabor, N. C.
Norman, A. I.
Concord, N. C.
Palmer, G. D.
Helena, Ark.
Rivera, R. E.

Mayaguez, P. R.
Robbins, W. H.
Raleigh, N. C.
Rode, N. F.
Hampton, Va.
Sanders, H. C.
Simsboro, La.
Spoon, R. P.
Charlotte, N. C.
Tarbox, J. G.
Rio De Janerio,
Brazil,
South America
Tarbox, W. K.
Rio De Janerio,
Brazil,
South America
Williams, M. H.
Washington, D. C.
Young, A. H.
Hamlet, N. C.
Report of The Treasurer For The Fiscal Year
July 1, 1916, to June 30, 1917

RESOURCES

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR. Balance brought forward from June 30, 1916</td>
<td>$31,452.40</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Privilege Fertilizer Tax</td>
<td>$237,943.93</td>
</tr>
<tr>
<td>Less Amount Applied on Loan</td>
<td>$216,432.49</td>
</tr>
<tr>
<td>Morrill and Nelson Fund (U. S.)</td>
<td>25,000.00</td>
</tr>
<tr>
<td>Interest on Landscip</td>
<td>5,754.00</td>
</tr>
<tr>
<td>Interest on Clemson Bequest</td>
<td>3,512.36</td>
</tr>
<tr>
<td>Tuition from Cadets</td>
<td>14,243.55</td>
</tr>
<tr>
<td>Sales, Interest, Rents, etc</td>
<td>7,755.23</td>
</tr>
<tr>
<td>Total</td>
<td>$304,150.03</td>
</tr>
</tbody>
</table>

EXPENDITURES

Public State Work—

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR. Scholarships and Advertisements</td>
<td>$21,559.99</td>
</tr>
<tr>
<td>Fertilizer Inspection and Analysis</td>
<td>27,329.62</td>
</tr>
<tr>
<td>Coast Experiment Station</td>
<td>2,367.60</td>
</tr>
<tr>
<td>Co-operative Experiment Work</td>
<td>1,558.80</td>
</tr>
<tr>
<td>Crop Pest Commission</td>
<td>1,843.76</td>
</tr>
<tr>
<td>Extension and Demonstration Work</td>
<td>9,994.26</td>
</tr>
<tr>
<td>Miscellaneous Public State Work</td>
<td>3,948.42</td>
</tr>
<tr>
<td>Pee Dee Experiment Station</td>
<td>2,160.08</td>
</tr>
<tr>
<td>Veterinary Inspection</td>
<td>5,016.71</td>
</tr>
<tr>
<td></td>
<td>$75,779.24</td>
</tr>
</tbody>
</table>

College Operating Expenses—

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries, Labor, Coal, Materials, etc.</td>
<td>$153,397.32</td>
</tr>
</tbody>
</table>

Additions to Plant—

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Shop, Library and Laboratory</td>
<td>$5,348.04</td>
</tr>
<tr>
<td>Equipment, etc</td>
<td>$15,896.39</td>
</tr>
<tr>
<td>Buildings and Permanent Improvements, etc</td>
<td>$245,072.95</td>
</tr>
</tbody>
</table>

* NOTE BY W. M. R.—The actual amount from the fertilizer tax in 1916-17 was $216,432.49. $21,511.44 belonged to the receipts of 1915-16, but was held back by State Treasurer to be applied to loan. Payment was made in 1916-17 as shown by the third entry above.
UNEXPENDED—

Balance carried forward into July, 1917.

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$304,150.03</td>
</tr>
<tr>
<td>Unexpended</td>
<td>$59,077.08</td>
</tr>
</tbody>
</table>

The following is a more detailed statement, showing the Expenditures and Cost of the Public State Work, and each Department and Division of the College, under the items appropriated by the Board of Trustees:

PUBLIC STATE WORK DEPARTMENT

Scholarships and Advertisements—

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scholarships and Advertisements</td>
<td>$21,559.99—$21,559.99</td>
</tr>
</tbody>
</table>

Fertilizer Analysis—

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>$9,752.07</td>
</tr>
<tr>
<td>Apparatus</td>
<td>414.61</td>
</tr>
<tr>
<td>Chemicals</td>
<td>671.37</td>
</tr>
<tr>
<td>Gasoline</td>
<td>342.76</td>
</tr>
<tr>
<td>Record Books, Postage, Stationery, etc.</td>
<td>144.38</td>
</tr>
<tr>
<td>Incidents</td>
<td>29.27</td>
</tr>
<tr>
<td>Labor—Janitor</td>
<td>120.00</td>
</tr>
<tr>
<td>Extra Help in Laboratory and Office</td>
<td>236.50</td>
</tr>
<tr>
<td>Additional, Labor, etc.</td>
<td>300.65</td>
</tr>
<tr>
<td>Delegates to Association of Agricultural Chemists</td>
<td>50.15</td>
</tr>
<tr>
<td>Repairs to Tables and Filter Stands</td>
<td>13.50—$12,075.26</td>
</tr>
</tbody>
</table>

Fertilizer Inspection—

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>$2,554.92</td>
</tr>
<tr>
<td>Labor—Janitor</td>
<td>260.00</td>
</tr>
<tr>
<td>Tags and Printing</td>
<td>3,490.32</td>
</tr>
<tr>
<td>Pay and Travel of Fertilizer Inspectors</td>
<td>6,515.14</td>
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<tr>
<td>Printing and Mailing Weekly Bulletins</td>
<td>358.33</td>
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<tr>
<td>Freight, Postage and Incidentals</td>
<td>726.05</td>
</tr>
<tr>
<td>Legal Services</td>
<td>250.00</td>
</tr>
<tr>
<td>Condensed Fertilizer Bulletin</td>
<td>760.63</td>
</tr>
<tr>
<td>Inspectors’ Cases, Trunks, etc</td>
<td>8.40</td>
</tr>
<tr>
<td>Office Furniture and Fixtures</td>
<td>29.07</td>
</tr>
<tr>
<td>Penalty Remitted</td>
<td>301.50—$15,254.36</td>
</tr>
</tbody>
</table>

Coast Experiment Station—

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary of Superintendent</td>
<td>$1,699.92</td>
</tr>
<tr>
<td>Forestry Experiments</td>
<td>49.46</td>
</tr>
<tr>
<td>Orchard and Vineyard Experiments</td>
<td>171.13</td>
</tr>
<tr>
<td>Hog Crop Experiments</td>
<td>95.85</td>
</tr>
</tbody>
</table>
Extending Vineyards .................................. 41.89
Tools and Implements ................................ 135.00
Potato House ........................................... 49.70
Drain to Platt Branch Ditch .......................... 99.80
Repairs to Roof of Superintendent’s Resid. ....... 34.85—$ 2,367.60

Co-operative Experimental Work—
Salary Field Entomologist ......................... $ 742.13
Traveling Expenses Botanist and Assistant ...... 279.58
Graduate Student Help ................................ 480.00
Printing, Postage, Stationery, etc ............... 49.66
Seed and Field Supplies for Wilt Work .......... 7.43—$ 1,558.80

Crop Pest Commission—
Salaries .................................................. $ 750.27
Labor ....................................................... 152.76
Tags ......................................................... 80.29
Expenses of Entomologist .......................... 615.13
Expenses of Pathologist ............................. 245.31—$ 1,843.76

Extension Division—
Salaries .................................................. $ 1,749.99
Expenses for Short Course for Boys’ Corn Club .... 1,197.30
Publication of “News Notes” ........................ 489.26
Office Supplies ......................................... 299.33
Miscellaneous Travel and Clerical Hire .......... 609.31
Freight and Express .................................. 25.90
Contribution to Demonstration Work ............. 5,623.17—$ 9,994.26

Miscellaneous Public State Work—
Travel and Entertainment of Legislative Committees, etc $ 85.31
Popular Bulletins ...................................... 300.00
Contribution to Expenses of Local School ......... 400.00
Summer School ......................................... 87.77
Boll Weevil Trip ........................................ 594.89
State Fair Exhibit ...................................... 700.00
Interest on State Loan ................................ 1,012.30
Rural School Plans .................................... 518.15
State Bankers’ Association ........................... 250.00—$ 3,948.42

Pee Dee Experiment Station—
Salary of Superintendent ............................ $ 1,699.92
Tools and Implements ................................ 199.83
Horticultural Work .................................... 147.98
Hog Experiments ....................................... 112.35—$ 2,160.08
**Veterinary Inspection**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>$2,889.96</td>
</tr>
<tr>
<td>Travel, Printing and Office Expenses</td>
<td>$1,631.09</td>
</tr>
<tr>
<td>Graduate Student Assistant</td>
<td>$400.00</td>
</tr>
<tr>
<td>Inspection Trip of Veterinarian</td>
<td>$95.66</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$5,016.71</strong></td>
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**Public State Work Expenditures**

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$75,779.24</strong></td>
</tr>
</tbody>
</table>

**COLLEGE WORK**

**ACADEMIC DEPARTMENT**

**English Division**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Files, Reference Books, etc</td>
<td>$24.12</td>
</tr>
<tr>
<td>Printing Exercises and Examinations</td>
<td>$6.00</td>
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<tr>
<td>Printing Exercises and Examinations</td>
<td>$6.00</td>
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**History Division**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodicals for Class Use</td>
<td>$47.53</td>
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</tbody>
</table>

**Office and Unclassified Division**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor-Two Janitors</td>
<td>$546.28</td>
</tr>
<tr>
<td>Chalk, Erasers, Brooms, Stationery, etc</td>
<td>$129.66</td>
</tr>
</tbody>
</table>

**Physics Division**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Supplies and Repairs</td>
<td>$74.47</td>
</tr>
<tr>
<td>Graduate Student Assistant</td>
<td>$360.00</td>
</tr>
<tr>
<td>Physics Apparatus</td>
<td>$249.93</td>
</tr>
<tr>
<td>Adapting Room for Physics Division</td>
<td>$60.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$744.40</strong></td>
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**Salaries**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries-Professors and Assistants</td>
<td>$25,632.81</td>
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</table>

**Department Expenditures**

<table>
<thead>
<tr>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$27,130.80</strong></td>
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**AGRICULTURAL DEPARTMENT**

**Agronomy Division**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Cement, Gasoline, Oil, etc</td>
<td>$72.74</td>
</tr>
<tr>
<td>Seeds, Score Cards, etc</td>
<td>$32.40</td>
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<tr>
<td>Materials for Class Work</td>
<td>$36.84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$141.98</strong></td>
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</table>

**Animal Husbandry and Dairying Division**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freight and Repairs</td>
<td>$20.00</td>
</tr>
<tr>
<td>Glassware and Chemicals</td>
<td>$26.80</td>
</tr>
<tr>
<td>Janitor for Dairy Building</td>
<td>$240.00</td>
</tr>
<tr>
<td>Category</td>
<td>Costs</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Janitor and Miscellaneous Supplies</td>
<td>$89.58</td>
</tr>
<tr>
<td>Feed, Stuffs, Labor, Supervision Breeding</td>
<td>$1,380.00</td>
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<tr>
<td>Project</td>
<td></td>
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<tr>
<td>Part Salary for Butter Maker</td>
<td>$300.00</td>
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<tr>
<td>Dipping Vat, Cover and Pens</td>
<td>$95.00</td>
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<tr>
<td>Poultry Plant and Support</td>
<td>$500.00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$2,651.33</strong></td>
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<tr>
<td><strong>Botany and Bacteriology Division</strong></td>
<td></td>
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<tr>
<td>Botanical Publications</td>
<td>$47.60</td>
</tr>
<tr>
<td>Glassware and Laboratory Supplies</td>
<td>$98.70</td>
</tr>
<tr>
<td>Collecting Materials</td>
<td>$31.83</td>
</tr>
<tr>
<td>Graduate Student Assistant</td>
<td>$480.00</td>
</tr>
<tr>
<td>Sterilizer</td>
<td>$50.00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$707.50</strong></td>
</tr>
<tr>
<td><strong>Entomology and Zoology Division</strong></td>
<td></td>
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<tr>
<td>Class and Laboratory Materials</td>
<td>$24.80</td>
</tr>
<tr>
<td>Labor</td>
<td>$190.19</td>
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<tr>
<td>Repairs to Instruments</td>
<td>$16.40</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$231.39</strong></td>
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<tr>
<td><strong>Geology and Mineralogy Division</strong></td>
<td></td>
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<tr>
<td>Chemical and Laboratory Supplies, etc</td>
<td>$33.72</td>
</tr>
<tr>
<td>Labor</td>
<td>$29.05</td>
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<tr>
<td>Microscope</td>
<td>$80.00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$142.77</strong></td>
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<tr>
<td><strong>Horticultural Division</strong></td>
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<tr>
<td>Labor</td>
<td>$1,199.20</td>
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<tr>
<td>Fertilizer</td>
<td>$200.00</td>
</tr>
<tr>
<td>Seeds and Plants</td>
<td>$75.33</td>
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<tr>
<td>Greenhouse Supplies and Repairs</td>
<td>$74.82</td>
</tr>
<tr>
<td>Coal for Greenhouse</td>
<td>$48.30</td>
</tr>
<tr>
<td>Tools for Class Use</td>
<td>$24.78</td>
</tr>
<tr>
<td>Spray Apparatus and Materials</td>
<td>$25.00</td>
</tr>
<tr>
<td>Graduate Student Assistant</td>
<td>$480.00</td>
</tr>
<tr>
<td>Feed for Two Mules</td>
<td>$199.98</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,327.41</strong></td>
</tr>
<tr>
<td><strong>Office and Unclassified Division</strong></td>
<td></td>
</tr>
<tr>
<td>Janitor</td>
<td>$240.00</td>
</tr>
<tr>
<td>Janitor Supplies</td>
<td>$119.92</td>
</tr>
<tr>
<td>Gasoline</td>
<td>$150.00</td>
</tr>
<tr>
<td>Traveling Expenses of Director</td>
<td>$246.11</td>
</tr>
<tr>
<td>Attending Conventions, etc</td>
<td>$101.10</td>
</tr>
<tr>
<td>Stationery, Postage, etc., for Department</td>
<td>$549.98</td>
</tr>
<tr>
<td>Upkeep of Building</td>
<td>$50.00</td>
</tr>
<tr>
<td>Student Labor</td>
<td>$240.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,697.11</strong></td>
</tr>
<tr>
<td><strong>Veterinary Science Division</strong></td>
<td></td>
</tr>
<tr>
<td>Feed for Animals at Veterinary Hospital</td>
<td>$498.53</td>
</tr>
</tbody>
</table>
Drugs and Hospital Supplies 343.26
Janitor and Extra Labor 296.26
Coal 24.76
Laboratory Supplies for Class Work 74.28
Animals for Dissecting 74.60
Gasoline for Gas Machine 23.87
Repairs and Replacement of Apparatus 12.00
Fencing Materials and Incidents 144.05
Veterinary Journals 2.00
Repairs to Gas Machine and Heating System 182.34

Soils Division— Supplies and Small Apparatus, etc. $100.00
Salaries—Professors and Assistants $21,336.11

Department Expenditures $31,011.69

CHEMICAL DEPARTMENT

Chemistry Division— Apparatus $600.00
Chemicals 398.46
Gasoline 189.05
Books and Journals 78.82
Binding Books and Journals 19.66
Repairs to Hoods, Flumes and Furnaces 2.02
Incidents 100.08
Labor—Janitor 120.00
Overhauling Plumbing 48.66
Equipment for Physical Chemistry 201.01
Salaries—Director and Assistants $6,007.39

Department Expenditures $7,765.15

ENGINEERING DEPARTMENT

Civil Engineering Division— Class Materials, etc. $39.30
Repairs and Replacement to Instruments and Furniture 85.04
Small Apparatus 25.00

### Drawing Division
- Materials, as Ink, Paper, etc. $58.93
- Repairs and Renewals of Apparatus $50.55
- Expenses of Architectural Contest $14.45
- Subscription to Architectural Magazines $50.00
- Reference Books $50.00

### Electrical Engineering Division
- Junior Laboratory Supplies $48.95
- Senior Laboratory Supplies $59.24
- Repairs and Renewals $104.79
- Class and Laboratory Notes for Students $29.53
- Student Assistant $359.85
- Oscillograph $249.12

### Forge and Foundry Division
- Labor—Helper in Forge and Foundry $319.62
- Iron and Steel for Forge Shop $264.67
- Repairs and Replacements of Machinery and Apparatus $74.58
- Supplies, as Flour, Plumbago, etc $49.62
- Coal for Forge Shop $125.00
- Pig Iron and Brass for Foundry $150.00
- Moulding Sand $57.00
- Coke for Foundry $1,105.49

### Machine Shop Division
- Labor—Machinist $450.00
- Repairs and Replacement of Tools and Machines $93.55
- Shop Materials $199.65
- Two Motors for Shop $1,051.13

### Mechanical Engineering Division
- Laboratory Supplies $66.48
- Gasoline $24.87
- Data Blanks $15.00
- Repairs and Replacements $132.00

### Office and Unclassified Division
- Labor—Janitor $301.98
- Office and Janitor Supplies $199.96
- Upkeep of Engineering Building $35.72
- Attendance on Conventions $574.85

### Wood Shop Division
- Labor $314.89
- Supplies, as Lumber, Hardware, etc. $399.43
- Repairs and Replacements of Tools and Machinery $862.07
Salaries—
Salaries—Director and Assistants ...$ 24,235.31—$ 24,235.31

Department Expenditures __________________________ $ 29,185.60

MILITARY DEPARTMENT

Office and Unclassified Division—
Postage, Stationery and Record Books ...$ 298.21
Cadet Officers' Insignia ________________ 315.64
Premium on Ordnance Bond ____________ 43.93
Military Supplies _____________________ 124.27
Upkeep of Band ________________________ 99.97
Sabres for Officers ____________________ 30.00
Double Flat Top Desk _________________ 45.00
Band Instruments _____________________ 232.00—$ 1,189.02

Salaries—
Salaries—Commandant and Assistants ...$ 3,483.20—$ 3,483.20

Department Expenditures __________________________ $ 4,672.22

TEXTILE DEPARTMENT

Carding and Spinning Division—
Cotton for Class Use ____________________ $ 133.43
Repairs and Supplies ____________________ 125.07
Materials for Cotton Grading ____________ 5.06—$ 263.56

Dyeing Division—
Chemicals and Dye Stuffs ________________ $ 99.41
Glassware and Laboratory Materials _____ 136.69
Miscellaneous Small Laboratory Apparatus 126.23
Two Motors __________________________ $ 65.50—$ 427.83

Office and Unclassified Division—
Janitor and Engineer ____________________ $ 399.88
Gasoline _____________________________ 72.49
Stationery, Postage, etc ________________ 40.72
Freight on Donated Machinery __________ 7.27
Student Labor ________________________ 99.63
Mill Boy Helper ________________________ 196.00
Gas Mixer for Gas Machine ____________ 169.47
Attendance on Textile Conference ________ 38.10—$ 1,023.56
Weaving Division—
Warp and Filling Yarn $163.89
Loom Supplies and Repairs 131.27

Salaries—
Salaries—Director and Assistants $5,804.88

Department Expenditures $7,814.99

PUBLIC UTILITIES DEPARTMENT

Construction and Repairs Division—
Office Supplies, Postage, Files, etc. 43.78
Repairs and Renewal of Apparatus 26.47
Tools and Implements 22.87
Repairs to Slate Roofs 17.65
Painting Tin Roofs 60.12
Miscellaneous Unforseen Repairs to Public Buildings 480.51
Repairs to Steps of Barracks No. 3 63.90
Floor, West Porch, Chemical Laboratory 8.64
Repairs to Dairy Building 19.95
Reinforce Dairy Barn Roof 150.03
Repairs, Wood Shop Floor 23.77
Repairs to Gutters, Roof Eng. Bldg. 168.23
Miscellaneous Repairs to Mess Hall 105.49
Kalsomine and Paint Interior Agricultural Hall 199.86
Stove Flue, Hospital 4.57
Repairs to Veterinary Hospital 8.36
Salary of Superintendent 1,069.92
Repairs to College Chapel 145.97
Extension to Textile Steps 25.42
Express Room, Treasurer’s Office 26.19
Dormer windows (C. C. Newman) 69.95
Close Basement (Shields) 13.95
Two Rooms (Pickett) 552.10
Deficit on Y. M. C. A. Building 3,182.00
Adapting Hardin Residence for Extension Division 499.89
Refund Plumbing (C. S. Lykes) 62.00
Rural School Plans 11.85

Campus and Roads Division—
Labor—Campus Gardener $318.43
Improvement Work on Campus 699.98

TOTAL: $7,063.44
Work on Roads, Sidewalks, Athletic Field 2,500.00
Cement Walk to Y. M. C. A. Building 250.00
Salary of Superintendent 1,200.00
Service and Plans of Landscape Architect 42.27—$ 5,010.68

College Hauling Division—
Teamster $ 480.00
Two Drivers 576.00
Feed for Six Mules 844.00
Shoeing and Repairing 50.00—$ 1,950.00

Heat, Light and Water Division—
Labor $ 2,840.46
Materials, Repairs and Extensions 1,599.34
Coal 7,959.49
Additional Boiler Installation 6,105.00
Connection to Y. M. C. A. Sewer 199.66
Larger Neutra for Y. M. C. A. 49.52
Telephone to Y. M. C. A. 22.23—$ 18,775.70

Watchmen Division—
Salaries—Two Watchmen $ 1,020.00
Supplies 18.66—$ 1,038.66

Department Expenditures $ 33,838.48

MISCELLANEOUS DEPARTMENT

Executive and Clerical Salaries Division—
Salaries—President, Secretary-Treasurer, Bookkeepers, Registrar, etc $ 11,306.44—$ 11,306.44

Library Division—
Magazines $ 199.80
Binding 200.00
Supplies, as Cards, Stationery, Stacks 105.86
Membership Dues to Societies 44.00
Books 489.55
Salaries 1,619.88—$ 2,659.09

Miscellaneous Items—
Expenses of Trustees and Board of Visitors $ 680.04
Insurance Sinking Fund 3,000.00
Contingent and Incidental Expenses 1,245.25
Ministers 1,898.90
Salary of Y. M. C. A. Secretary 500.04
Sunday School Literature 15.25
College Catalogue 510.11
Annual Report to Legislature 35.45
Lyceum Lecture and Entertainments 400.00
Commencement Expenses 404.18
Trustee Medal 25.00
Supplies and Repairs for Gymnasium 7.50
Upkeep to Telephone System 99.06
Telephone and Telegraph Operator 244.16
Chapel Lecture Series 47.25
Pictorial Bulletin 250.00
Membership of College in National Asso. 70.00
Hotel Equipment 1,393.34
Tablet to Col. Hardin 25.50
Wire Around Seven Tennis Courts 212.48
Additional Telephones 75.00
Industrial Film—Moving Picture Outfit 378.00
Cotton Mattresses for Barracks 57.00—$ 11,573.51

President's Office Division—
Stamps, Stationery, Supplies, etc. $ 551.02
Traveling Fund 443.14
Emergency Student Labor in Office 158.64—$ 1,152.80

Treasurer's Office—
Record Books, Stationery, Postage, etc. $ 519.76
Emergency Assistance 141.98
Premium on Treasurer's Bond 62.50
Treasurer's Annual Report 191.48
Audit of Treasurer's Books 267.22—$ 1,182.94

Department Expenditures $ 27,874.78

SUMMARY
Expenditures by Departments.

Public State Work $ 75,779.24
Academic 27,130.80
Agricultural 31,011.69
Chemical 7,765.15
Engineering 29,185.60
Military 4,672.22
Textile 7,814.99
Public Utilities 33,838.48
Miscellaneous 27,874.78—$245,072.95

Respectfully submitted,

S. W. EVANS,
Secretary-Treasurer.

To President W. M. Riggs,
August 1, 1917.
Report of Auditor

PART 1

GENERAL REPORT OF CLEMSON AGRICULTURAL COLLEGE

It is my privilege to present to your honorable body my report on an annual audit of the books and records of this office for the third successive year—or the fiscal year ended June 30, 1917. I do not feel that it is necessary to comment at length with regard to the general conduct of the accounting department of the college, but in fairness to your most able Treasurer and his assistants, I do feel that a brief review of facts, in this connection, is in order. Your attention is, therefore, respectfully directed to the following section, ("Books and Records.")

Books and Records.

By reference to former reports, I find that I have reported the conditions of books and records of the office of Treasurer of Clemson Agricultural College as highly satisfactory.

In making this examination, I have become more or less familiar with the individual work of each member of the Treasurer's staff. It is, therefore, possible to point out to your honorable body a most remarkable condition, viz: notwithstanding the great volume of work, the many details and the extraordinary classification required on account of both the college and public work, I found these records correct in every particular. Such unusual efficiency should not be lightly looked upon and I feel sure that the Treasurer and his entire force merit any reward consistent with accurate and conscientious attention to duty.

There has been no material change in the system of accounting since the close of the preceding year—and no change is either necessary or desirable at this time. Mr. Evans has compiled his records in a manner which covers the ground fully and meets all the requirements of modern methods for an office of this character.

Vouchers.

I have carefully examined each and every voucher, representing both receipts and disbursements for the period covered by this audit, and have checked such items against the books of account. I found these vouchers in itemized and properly approved form without exception.
Receipts—Sources of Income.

The total income from the privilege fertilizer tax—the principal source of revenue—amounted to $23,943.33, but the sum of $21,828.64 was retained by the State Treasurer as part payment on a loan by the State of South Carolina to the College, according to agreement. The net receipts from this source, therefore, amounted to $216,110.29; from the United States government (or the Nelson and Morrill funds) the Treasurer received $25,000.00 and from other sources $31,265.14, making a total of $272,380.43 to account for in the general college fund.

Of the above stated amount, the sum of $75,462.04, was devoted to public state work and only the remaining sum of $196,918.39 was available for support and development of the institution.

Disbursements—Classification of Expenditures.

Acting upon instructions, I have classified the expenditures only in accordance with the standard accounts on the Treasurer's ledgers being adequate for purposes for which this report is intended.

I will state in this connection, that any other classification which may be desired can be complied from the ledger accounts without difficulty.

The total expenditures for the year amount to $244,755.75.

Appropriations.

It will be noted that I have shown the amount appropriated against the expenditure for each division.

Final Accounting.

The summary of receipts and disbursements on account of the College fund shows a balance of $59,077.08 to be accounted for in cash at the close of business, June 30, 1917.

Current Debt—Borrowed Money.

This section refers to a loan in the sum of $40,888.56, made to Clemson Agricultural College by the State of South Carolina, on or about April 2, 1917. The obligation, which matures within five years, was contracted under provisions of an Act of the General Assembly, Number 247, Acts of 1915.
## CONDENSED STATEMENT SHOWING SOURCES OF COLLEGE REVENUE AND OPERATING EXPENSES

(July 1, 1916 to June 30, 1917)

### INCOME

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on hand July 1, 1916</td>
<td>$31,452.40</td>
</tr>
<tr>
<td>Receipts July 1, 1916 to June 30, 1917</td>
<td></td>
</tr>
<tr>
<td>Privilege Fertilizer Tax</td>
<td>$237,943.93</td>
</tr>
<tr>
<td><em>Less Amount reserved by State Treasurer, payment of Loan</em></td>
<td>$21,828.64</td>
</tr>
<tr>
<td>Morrill and Nelson Funds (U.S.)</td>
<td>25,000.00</td>
</tr>
<tr>
<td>Interest on Landscip</td>
<td>5,754.00</td>
</tr>
<tr>
<td>Interest on Clemson Bequest</td>
<td>3,512.36</td>
</tr>
<tr>
<td>Tuition from Cadets</td>
<td>14,243.55</td>
</tr>
<tr>
<td>Other Sources (Sales, Interest, Rents, etc.)</td>
<td>7,755.23</td>
</tr>
<tr>
<td>Total to account for</td>
<td>$303,832.83</td>
</tr>
</tbody>
</table>

### EXPENDITURES

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public State Work</td>
<td></td>
</tr>
<tr>
<td>Coast Experiment Station</td>
<td>$2,367.60</td>
</tr>
<tr>
<td>Co-operative Experiment Work</td>
<td>1,558.80</td>
</tr>
<tr>
<td>Crop Pest Commission</td>
<td>1,842.76</td>
</tr>
<tr>
<td>Extension &amp; Demonstration W’k</td>
<td>9,994.26</td>
</tr>
<tr>
<td>Fertilizer Inspection &amp; Analysis</td>
<td>27,329.62</td>
</tr>
<tr>
<td>Miscellaneous Public State W’k</td>
<td>3,631.22</td>
</tr>
<tr>
<td>Pee Dee Experiment Station</td>
<td>2,160.08</td>
</tr>
<tr>
<td>Scholarships &amp; Advertisements</td>
<td>21,559.99</td>
</tr>
<tr>
<td>Veterinary Inspection</td>
<td>5,016.71</td>
</tr>
<tr>
<td>Total for College Operating Expenses</td>
<td>75,462.04</td>
</tr>
<tr>
<td>For Additions to Plant</td>
<td></td>
</tr>
<tr>
<td>Buildings and Permanent Improvements</td>
<td>10,548.35</td>
</tr>
<tr>
<td>Additional Shop, Library &amp; Laboratory Equipment, Etc.</td>
<td>5,348.04</td>
</tr>
<tr>
<td>Total</td>
<td>$244,755.75</td>
</tr>
<tr>
<td>Unexpended Balances June 30, 1917</td>
<td>59,077.08</td>
</tr>
<tr>
<td></td>
<td>$303,832.83</td>
</tr>
</tbody>
</table>

* Including interest. S. W. E.
## GENERAL STATEMENT OF COLLEGE FUND.

### Departmental and Divisional Appropriations and Expenditures
(Year Ended, June 30, 1917)

### PUBLIC WORK:

<table>
<thead>
<tr>
<th>Public State Work Department</th>
<th>Appropriations</th>
<th>Divisional Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beneficiary Scholarships</td>
<td>22,500.00</td>
<td>21,559.99</td>
</tr>
<tr>
<td>Chemical Analysis (Fertilizer)</td>
<td>12,822.50</td>
<td>12,075.26</td>
</tr>
<tr>
<td>Coast Experiment Station</td>
<td>2,360.00</td>
<td>2,367.60</td>
</tr>
<tr>
<td>Co-operative Experiment Station</td>
<td>1,875.00</td>
<td>1,558.50</td>
</tr>
<tr>
<td>Crop Pest Commission</td>
<td>1,880.00</td>
<td>1,843.76</td>
</tr>
<tr>
<td>Extension and Demonstration Work</td>
<td>10,000.00</td>
<td>9,994.26</td>
</tr>
<tr>
<td>Fertilizer Inspection</td>
<td>22,245.00</td>
<td>15,254.36</td>
</tr>
<tr>
<td>Miscellaneous Public Work</td>
<td>3,580.00</td>
<td>3,631.22</td>
</tr>
<tr>
<td>Pee Dee Experiment Station</td>
<td>2,250.00</td>
<td>2,160.08</td>
</tr>
<tr>
<td>Veterinary Inspection</td>
<td>5,120.00</td>
<td>5,016.71</td>
</tr>
</tbody>
</table>

Excess Appropriations over Expenditures

|                      | 84,632.50 | 75,462.04 |

### COLLEGE WORK:

<table>
<thead>
<tr>
<th>Academic Department</th>
<th>Appropriations</th>
<th>Divisional Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>61.00</td>
<td>30.12</td>
</tr>
<tr>
<td>History</td>
<td>50.00</td>
<td>47.53</td>
</tr>
<tr>
<td>Mathematics</td>
<td>50.00</td>
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</tr>
<tr>
<td>Office and Unclassified</td>
<td>716.00</td>
<td>675.94</td>
</tr>
<tr>
<td>Physics</td>
<td>745.00</td>
<td>744.40</td>
</tr>
<tr>
<td>Salaries—Professors and Assistants</td>
<td>25,695.00</td>
<td>25,632.81</td>
</tr>
</tbody>
</table>

Excess Appropriations over Expenditures

|                      | 27,317.00 | 27,130.80 |

### C. Agricultural Department:

<table>
<thead>
<tr>
<th>Agricultural Department</th>
<th>Appropriations</th>
<th>Divisional Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agronomy</td>
<td>305.00</td>
<td>141.98</td>
</tr>
<tr>
<td>Animal Husbandry (Dairying Division)</td>
<td>2,700.00</td>
<td>2,651.38</td>
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<tr>
<td>Botany and Bacteriology</td>
<td>730.00</td>
<td>707.59</td>
</tr>
<tr>
<td>Entomology and Zoology</td>
<td>250.00</td>
<td>231.39</td>
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<tr>
<td>Geology and Mineralogy</td>
<td>165.00</td>
<td>142.77</td>
</tr>
<tr>
<td>Horticultural</td>
<td>2,330.00</td>
<td>2,327.41</td>
</tr>
<tr>
<td>Office and Unclassified</td>
<td>1,700.00</td>
<td>1,697.11</td>
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<tr>
<td>Soils</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Veterin·ary Science __________________ _  
Salaries ____________________________ _  

<table>
<thead>
<tr>
<th></th>
<th>1,813.00</th>
<th>1,675.95</th>
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</thead>
<tbody>
<tr>
<td>Excess Appropriations over Expenditures</td>
<td>32,381.33</td>
<td>31,011.69</td>
</tr>
</tbody>
</table>

D. Chemical Department: 
Chemistry ____________________________ _  
Salaries ____________________________ _  

<table>
<thead>
<tr>
<th></th>
<th>1,955.00</th>
<th>1,757.76</th>
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</thead>
<tbody>
<tr>
<td>Excess Appropriations over Expenditures</td>
<td>7,912.50</td>
<td>7,765.15</td>
</tr>
</tbody>
</table>

E. Military Department: 
Office and Unclassified ____________________________ _  
Salaries—Commandant and Assistants ____________________________ _  

<table>
<thead>
<tr>
<th></th>
<th>1,235.93</th>
<th>1,189.02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excess Appropriations over Expenditures</td>
<td>4,860.93</td>
<td>4,672.22</td>
</tr>
</tbody>
</table>

F. Engineering Department: 
Civil Engineering ____________________________ _  
Drawing ____________________________ _  
Electrical Engineering ____________________________ _  
Forge and Foundry ____________________________ _  
Machine Shop ____________________________ _  
Mechanical Engineering ____________________________ _  
Office and Unclassified ____________________________ _  
Wood Shop ____________________________ _  
Salaries ____________________________ _  

<table>
<thead>
<tr>
<th></th>
<th>165.00</th>
<th>149.34</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>225.00</td>
<td>223.93</td>
</tr>
<tr>
<td></td>
<td>855.00</td>
<td>851.48</td>
</tr>
<tr>
<td></td>
<td>1,092.00</td>
<td>1,105.49</td>
</tr>
<tr>
<td></td>
<td>1,060.00</td>
<td>1,051.13</td>
</tr>
<tr>
<td></td>
<td>150.00</td>
<td>132.00</td>
</tr>
<tr>
<td></td>
<td>635.00</td>
<td>574.55</td>
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<tr>
<td></td>
<td>865.00</td>
<td>862.07</td>
</tr>
<tr>
<td></td>
<td>24,551.66</td>
<td>24,235.31</td>
</tr>
<tr>
<td>Excess Appropriations over Expenditures</td>
<td>29,598.66</td>
<td>29,185.60</td>
</tr>
</tbody>
</table>

G. Textile Department: 
Carding and Spinning ____________________________ _  
Dyeing ____________________________ _  
Office and Unclassified ____________________________ _  
Weaving ____________________________ _  

<table>
<thead>
<tr>
<th></th>
<th>485.00</th>
<th>263.56</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>470.00</td>
<td>427.83</td>
</tr>
<tr>
<td></td>
<td>1,255.00</td>
<td>1,023.56</td>
</tr>
<tr>
<td></td>
<td>350.00</td>
<td>295.16</td>
</tr>
</tbody>
</table>
Salaries ___________________________ 5,805.00 5,804.88
Excess Appropriations over Expenditures

8,365.00 7,814.99 550.01

H. Public Utilities Department:

Construction and Repairs ______________ 7,226.00 7,063.44
Campus and Roads _______________________ 5,320.00 5,010.68
College Hauling ________________________ 1,950.00 1,950.00
Heat, Light and Water ____________________ 19,130.25 18,775.70
Watchmen _______________________________ 1,165.00 1,038.66

Excess Appropriations over Expenditures

34,731.25 33,838.48 892.77

I. Miscellaneous Department:

Executive and Clerical Salaries __________ 11,350.00 11,306.44
Library _________________________________ 2,720.00 2,659.09
Miscellaneous Items ______________________ 12,836.11 11,573.51
President’s Office ________________________ 1,175.00 1,152.80
Treasurer’s Office _________________________ 1,300.00 1,182.94
Hospital ________________________________ 50.50

Excess Appropriations over Expenditures

29,531.61 27,874.78 1,556.83

SUMMARY BY DEPARTMENTS—APPROPRIATIONS, EXPENDITURES AND BALANCES.
(Fiscal Year Ending June 30, 1917)

Public Work:
A. Public State Work Dept. 84,632.50 75,462.04 9,170.46

College Work:
B. Academic Department 27,317.00 27,130.80 186.20
C. Agricultural Department 32,381.33 31,011.69 1,369.64
D. Chemical Department 7,912.50 7,765.15 147.35
E. Military Department 4,860.93 4,672.22 188.71
F. Engineering Department 29,598.66 29,185.60 413.06
G. Textile Department 8,365.00 7,814.99 550.01
H. Public Utilities Dept. 34,731.25 33,838.48 892.77
I. Miscellaneous Departm’t 29,431.61 27,874.78 1,556.83

Total Appropriations and Expenditures (as distributed on books of acc’t) 259,230.78 244,755.75 14,475.03
Unapportioned Funds:
(Included in Statement Cash Receipts)
Cash Balance July 1, 1916 ——— 31,452.40
Miscellaneous cash
Receipts ——— 13,149.65 44,602.05
Unexpended Bal.
June 30, 1917 59,077.08 59,077.08
303,832.83 303,832.83

PART II

REPORT ON FUNDS EXCLUSIVE OF THOSE REPORTED ON IN PART ONE

General Accounts.

This section includes classified statements of the following general accounts, to wit:
- Re-Investment Fund,
- Cadet Fund,
- Farm Products Account,
- Smith-Lever Federal Fund,
- Smith-Lever State Fund,
- Smith-Lever Direct Appropriation,
- Adams Fund, and
- Hatch Fund.

Especial attention is directed to the manner in which the Treasurer has classified the expenditures of the Smith-Lever Fund on his books. The classifications, made to meet the requirements of the Federal Government, are unusually complete and interesting. I will state also that it has increased the general bookkeeping work in this office to a considerable extent to arrange these accounts as they are now kept.

The vouchers for receipts and disbursements are handled in the same manner as for college funds—referred to in another section of this report.

As the statements explain these accounts fully, it is not necessary to comment further.

Cadet Deposits.

This department is a depository for the convenience of the students and is operated in the nature of a private banking business. I have audited the individual ledger and find that the aggregate sum of the individual balances agrees accurately with the general account designated "Cadet Deposits."
GENERAL STATEMENT OF RE-INVESTMENT FUND.

(Fiscal Year Ending June 30, 1917)

<table>
<thead>
<tr>
<th>Item</th>
<th>Receipts</th>
<th>Expenditures</th>
<th>Balances</th>
<th>Overdrafts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Husbandry and Dairying</td>
<td>$8,597.16</td>
<td>$10,833.19</td>
<td>$2,236.03</td>
<td></td>
</tr>
<tr>
<td>Bee Cattle</td>
<td>19,137.46</td>
<td>17,369.76</td>
<td>1,767.70</td>
<td></td>
</tr>
<tr>
<td>Hog Cholera Serum</td>
<td>5,029.61</td>
<td>6,437.22</td>
<td>1,407.61</td>
<td></td>
</tr>
<tr>
<td>Board of Health</td>
<td>261.88</td>
<td>306.96</td>
<td>45.08</td>
<td></td>
</tr>
<tr>
<td>Class 1914 Fountain</td>
<td>26.05</td>
<td>26.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coast Station</td>
<td>502.61</td>
<td>2,760.74</td>
<td>2,258.13</td>
<td></td>
</tr>
<tr>
<td>Co-operative Creamery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sinking Fund</td>
<td>811.80</td>
<td>717.81</td>
<td>93.99</td>
<td></td>
</tr>
<tr>
<td>Engineering Building</td>
<td>148.78</td>
<td></td>
<td>148.78</td>
<td></td>
</tr>
<tr>
<td>Farm</td>
<td>8,876.51</td>
<td>17,070.18</td>
<td>8,393.67</td>
<td></td>
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<tr>
<td>Hauling</td>
<td>7,860.26</td>
<td>10,423.76</td>
<td>2,563.50</td>
<td></td>
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<tr>
<td>Insurance Account</td>
<td>4,153.15</td>
<td>18.35</td>
<td>4,134.80</td>
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<tr>
<td>Laundry</td>
<td>370.13</td>
<td></td>
<td>370.13</td>
<td></td>
</tr>
<tr>
<td>Manufacturing State Flags</td>
<td>80.47</td>
<td>292.61</td>
<td>212.14</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>3,425.28</td>
<td>2,920.29</td>
<td>504.99</td>
<td></td>
</tr>
<tr>
<td>Norris Medal</td>
<td>40.16</td>
<td>40.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pee Dee Station</td>
<td>5,227.10</td>
<td>5,899.85</td>
<td>672.75</td>
<td></td>
</tr>
<tr>
<td>Printery</td>
<td>66.25</td>
<td>341.51</td>
<td>275.26</td>
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<tr>
<td>Summer School</td>
<td>1,782.40</td>
<td>2,367.52</td>
<td>585.12</td>
<td></td>
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<tr>
<td>Truck Garden</td>
<td>825.40</td>
<td>679.58</td>
<td>145.82</td>
<td></td>
</tr>
<tr>
<td>Uukeep of Residences</td>
<td>2,597.45</td>
<td>2,480.74</td>
<td>116.71</td>
<td></td>
</tr>
<tr>
<td>Wood Shop</td>
<td>557.57</td>
<td>626.91</td>
<td>69.34</td>
<td></td>
</tr>
<tr>
<td>Y. M. C. A. Building</td>
<td>3.20</td>
<td></td>
<td>3.20</td>
<td></td>
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<tr>
<td>Hotel</td>
<td>7,016.69</td>
<td>7,020.51</td>
<td>3.82</td>
<td></td>
</tr>
<tr>
<td>Southern Ry. Loan Fund</td>
<td>1,000.00</td>
<td>250.00</td>
<td>750.00</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>59</td>
<td></td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Textile Department</td>
<td>406.93</td>
<td>328.76</td>
<td>78.11</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$78,604.89</td>
<td>$89,212.48</td>
<td>$8,114.88</td>
<td></td>
</tr>
<tr>
<td><strong>Net Deficit</strong></td>
<td>10,607.59</td>
<td>10,607.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>$89,212.48</strong></td>
<td>$89,212.48</td>
<td>$18,722.47</td>
<td>$18,722.47</td>
<td></td>
</tr>
</tbody>
</table>

Note:—The above stated receipts and expenditures respectively, include balances and overdrafts brought forward from the year ended June 30, 1916.
GENERAL STATEMENT OF CADET FUND
(Fiscal Year Ending June 30, 1917.)

RECEIPTS.

Balance July 1, 1916 ______________________ 4,529.45
Total Cash Received From all Sources 136,487.01 141,016.46
Overdraft June 30, 1917 ______________ 3,475.13

Total to account for ____________________ 144,491.59

DISBURSEMENTS.

Breakage ______________________ 2,815.27
Heat, Light and Water ______ 7,005.89
Hospital _______________________ 4,617.98

Incidentals:

Barracks ________________________ 2,989.88
President’s office _______________ 888.95
Treasurer’s office _______________ 405.01
Diplomas _______________________ 224.36
Refunds _________________________ 12.00

Laundry __________________________ 8,621.45
Subsistence _________________________ 81,175.92
Uniforms _________________________ 33,552.95 142,309.66

Total Disbursements (Vouchers Audited) 144,491.59

GENERAL STATEMENT OF FARM PRODUCTS ACCOUNT
(Fiscal Year Ending June 30, 1917)

RECEIPTS.

Balance July 1, 1916 ______________________ 21.31

Sales as follows:

Chickens, Eggs, etc. _________________ 14.65
Cotton ___________________________ 1,181.15
Cotton Seed ________________ 42.00
Dairy Products (Butterfat) __________ 800.00
Horticultural Products ___________ 67.80
Miscellaneous Items _______________ 96.54
 Produce __________________________ 98.57
 Seed Cotton ______________________ 26.20
Seeds, Plants, etc. _________________ 68.98 2,395.89

Total _____________________________ $2,417.20
## EXPENDITURES

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Land</td>
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</tr>
<tr>
<td>Chemicals and Laboratory Supplies</td>
<td>12.37</td>
</tr>
<tr>
<td>Freight and Express</td>
<td>55.22</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>73.60</td>
</tr>
<tr>
<td>Feed Stuff</td>
<td>64.33</td>
</tr>
<tr>
<td>Furniture and Fixtures</td>
<td>7.31</td>
</tr>
<tr>
<td>Heat, Light and Water</td>
<td>116.36</td>
</tr>
<tr>
<td>Labor</td>
<td>427.88</td>
</tr>
<tr>
<td>Library</td>
<td>10.27</td>
</tr>
<tr>
<td>Publications</td>
<td>407.31</td>
</tr>
<tr>
<td>Postage and Stationery</td>
<td>29.40</td>
</tr>
<tr>
<td>Salaries</td>
<td>570.23</td>
</tr>
<tr>
<td>Seeds, Plants and Supplies</td>
<td>280.03</td>
</tr>
<tr>
<td>Scientific Apparatus</td>
<td>5.70</td>
</tr>
<tr>
<td>Tools, Machinery and Appliances</td>
<td>70.15</td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td>49.73</td>
</tr>
</tbody>
</table>

Total Expenditures: $2,349.08

Balance June 30, 1917: $68.12

Total Expenditures: $2,417.20

---

## GENERAL STATEMENT OF SMITH-LEVER FUND

**FEDERAL**

(Fiscal Year Ending June 30, 1917)

**RECEIPTS.**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. Treasury Warrant No. 3966</td>
<td>19,383.56</td>
</tr>
<tr>
<td>U. S. Treasury Warrant No. 11117</td>
<td>19,383.55</td>
</tr>
</tbody>
</table>

Total Fund: $38,767.11

**Items:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>31,394.54</td>
</tr>
<tr>
<td>Labor</td>
<td>250.45</td>
</tr>
<tr>
<td>Publications</td>
<td>839.70</td>
</tr>
<tr>
<td>Stationery and Small Printing</td>
<td>251.73</td>
</tr>
<tr>
<td>Postage, Telephone, Telegraph, etc.</td>
<td>279.35</td>
</tr>
<tr>
<td>Heat, Light and Water</td>
<td>196.39</td>
</tr>
<tr>
<td>Supplies</td>
<td>16.00</td>
</tr>
<tr>
<td>Library</td>
<td></td>
</tr>
<tr>
<td>Tools, Machinery and Appliances</td>
<td>137.19</td>
</tr>
<tr>
<td>Scientific Apparatus and Specimens</td>
<td></td>
</tr>
<tr>
<td>Live Stock</td>
<td>5,401.76</td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td></td>
</tr>
<tr>
<td>Contingent Expenses</td>
<td></td>
</tr>
</tbody>
</table>

Total Expenditures: $38,767.11
### GENERAL STATEMENT OF SMITH-LEVER FUND

(Fiscal Year Ending June 30, 1917)

#### STATE

**RECEIPTS.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Treasury Warrant No. 7810</td>
<td>31,382.00</td>
</tr>
<tr>
<td>Less Direct State Appropriation</td>
<td>2,614.89</td>
</tr>
</tbody>
</table>

**Total Fund** $28,767.11

#### EXPENDITURES

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>22,939.54</td>
</tr>
<tr>
<td>Labor</td>
<td>87.57</td>
</tr>
<tr>
<td>Publications</td>
<td>805.71</td>
</tr>
<tr>
<td>Stationery and Small Printing</td>
<td>120.80</td>
</tr>
<tr>
<td>Postage, Telephone, Telegraph &amp; Ex.</td>
<td>129.57</td>
</tr>
<tr>
<td>Heat, Light and Water</td>
<td>5.10</td>
</tr>
<tr>
<td>Supplies</td>
<td>18.43</td>
</tr>
<tr>
<td>Library</td>
<td>5.00</td>
</tr>
<tr>
<td>Tools, Machinery and Appliances</td>
<td></td>
</tr>
<tr>
<td>Scientific Apparatus and Specimens</td>
<td>297.75</td>
</tr>
<tr>
<td>Furniture and Fixtures</td>
<td></td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td>4,285.64</td>
</tr>
<tr>
<td>Contingent Expenses</td>
<td>72.00</td>
</tr>
</tbody>
</table>

**Total Expenditures** $28,767.11

### GENERAL STATEMENT SMITH-LEVER FUND

**DIRECT STATE APPROPRIATION**

(Fiscal Year Ending June 30, 1917)

State Treasury Warrant (See Smith-Lever State Fund) 2,614.89

**EXPENDITURES**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>2,451.07</td>
</tr>
<tr>
<td>Labor</td>
<td>87.50</td>
</tr>
<tr>
<td>Publications</td>
<td>8.60</td>
</tr>
<tr>
<td>Stationery and Small Printing</td>
<td>82.28</td>
</tr>
<tr>
<td>Postage, Telephone and Telegraph, Etc.</td>
<td>35.44</td>
</tr>
</tbody>
</table>

**Total Expenditures** $2,614.89
### GENERAL STATEMENT ADAMS FUND.
*(Fiscal Year Ending June 30, 1917)*

#### RECEIPTS.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. Treasury Warrant No. 1872</td>
<td>3,750.00</td>
</tr>
<tr>
<td>U. S. Treasury Warrant</td>
<td>3,750.00</td>
</tr>
<tr>
<td>U. S. Treasury Warrant No. 9078</td>
<td>3,750.00</td>
</tr>
<tr>
<td>U. S. Treasury Warrant, No. 13705</td>
<td>3,750.00</td>
</tr>
</tbody>
</table>

Total Fund: $15,000.00

#### DISBURSEMENTS.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buildings and Land</td>
<td>158.15</td>
</tr>
<tr>
<td>Chemicals and Laboratory Supplies</td>
<td>569.51</td>
</tr>
<tr>
<td>Freight and Express</td>
<td>64.77</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>290.30</td>
</tr>
<tr>
<td>Furniture and Fixtures</td>
<td>9.00</td>
</tr>
<tr>
<td>Heat, Lights and Power</td>
<td>166.89</td>
</tr>
<tr>
<td>Labor</td>
<td>3,498.56</td>
</tr>
<tr>
<td>Library</td>
<td>76.60</td>
</tr>
<tr>
<td>Postage and Stationery</td>
<td>142.72</td>
</tr>
<tr>
<td>Salaries</td>
<td>8,769.63</td>
</tr>
<tr>
<td>Seed, Plants, etc.</td>
<td>230.74</td>
</tr>
<tr>
<td>Scientific Apparatus, Specimens, Etc.</td>
<td>542.17</td>
</tr>
<tr>
<td>Tools, Machinery, Etc.</td>
<td>471.55</td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td>9.41</td>
</tr>
</tbody>
</table>

Total Expenditures: $15,000.00

### GENERAL STATEMENT OF HATCH FUND
*(Fiscal Year Ending June 30, 1917)*

#### RECEIPTS.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. S. Warrant Number 1872</td>
<td>3,750.00</td>
</tr>
<tr>
<td>U. S. Treasury Warrant</td>
<td>3,750.00</td>
</tr>
<tr>
<td>U. S. Treasury Warrant No. 9078</td>
<td>3,750.00</td>
</tr>
<tr>
<td>U. S. Treasury Warrant No. 13705</td>
<td>3,750.00</td>
</tr>
</tbody>
</table>

Total Fund: $15,000.00

#### EXPENDITURES

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building and Land</td>
<td>604.90</td>
</tr>
<tr>
<td>Chemical Laboratory Supplies</td>
<td>11.56</td>
</tr>
<tr>
<td>Contingent Expenses</td>
<td>20.00</td>
</tr>
<tr>
<td>Freight and Express</td>
<td>234.52</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>743.20</td>
</tr>
<tr>
<td>Feed Stuff</td>
<td>904.57</td>
</tr>
<tr>
<td>Item</td>
<td>Amount</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Furniture and Fixtures</td>
<td>149.09</td>
</tr>
<tr>
<td>Heat, Light, Water and Power</td>
<td>92.87</td>
</tr>
<tr>
<td>Labor</td>
<td>4,246.95</td>
</tr>
<tr>
<td>Library</td>
<td>55.83</td>
</tr>
<tr>
<td>Publications</td>
<td>602.40</td>
</tr>
<tr>
<td>Postage and Stationery</td>
<td>237.13</td>
</tr>
<tr>
<td>Salaries</td>
<td>6,052.16</td>
</tr>
<tr>
<td>Seeds, Plants and Supplies</td>
<td>610.40</td>
</tr>
<tr>
<td>Tools, Machinery and Appliances</td>
<td>187.40</td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td>247.02</td>
</tr>
</tbody>
</table>

Total Expenditures: $15,000.00

**GENERAL STATEMENT OF CADET DEPOSITS ACCOUNT.**

(Fiscal Year Ending June 30, 1917)

**Deposits:**
- Deposited July 1, 1916 to June 30, 1917: $60,970.87
- Less Overdrafts July 1, 1916: $680.42

Cash to Account For: $60,290.45

**Checks:**
- Checks paid July 1, 1916 to June 30, 1917: $59,958.45
- Balance on hand June 30, 1917: $332.00

Total: $60,290.45

**July 1, 1917 to August 1, 1917.**

**Deposits:**
- Balance on Hand July 1, 1917: $332.00
- Deposits July 1, '17 to Aug. 2, '17, inclusive: $242.00

Overdraft August 1, 1917, Close of Business: $1,163.64

Total: $1,737.64

**Checks:**
- Checks paid July 1 to August 2, 1917, inclusive: $1,737.64
PART III

REPORT ON AUDIT OF CASH ACCOUNTS

General Comments.

My audit of the cash accounts extends over the period commencing July 1, 1916 and ending with the close of business, August 1, 1917. In connection with my audit of cash accounts, bank balances and cash on hand, I present the following statements, to wit:

“A” Statement of Cash on Hand July 1, 1916, receipts and disbursements for the fiscal year ended June 30, 1917—and balance to be accounted for June 30, 1917.

“B” State of cash on hand and in banks June 30, 1917, as indicated by the books and records of the Treasurer’s office.

“C” Actual cash on hand and in banks at the close of business August 1, 1917 as determined by this audit.

“D” Detailed statement of cash in office as counted, at the close of business August 1, 1917.

It will be observed that I have made a very thorough investigation with respect to cash and that I have taken nothing for granted.

It is very gratifying to be able to report that the Treasurer’s cash accounts were absolutely accurate.

Concluding Comments.

In closing this report, I desire to express sincere appreciation that I have again had the honor of auditing the books and records of this great institutions. Usually, in cases where the volume of work is so extensive, I would give much more time and thought to discussion of the various subjects involved. In this case, I do not feel that much explanation is necessary—and, therefore, merely respectfully direct your attention to the various statements attached.

Through this report, I beg to thank the President, the Treasurer and others with whom we were associated during the progress of this work, for the many courtesies extended to my assistant (Mr. J. Spencer Wolling) and myself at Clemson College.

COMBINED CASH STATEMENT
(Fiscal Year Ending June 30, 1917)

Balances July 1, 1916:

<table>
<thead>
<tr>
<th>Account</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Fund</td>
<td>31,452.40</td>
</tr>
<tr>
<td>Cadet Fund</td>
<td>4,529.45</td>
</tr>
<tr>
<td>Farm Products Fund</td>
<td>21.31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36,003.16</strong></td>
</tr>
</tbody>
</table>

Less Overdrafts:

<table>
<thead>
<tr>
<th>Account</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-investment Fund</td>
<td>6,172.12</td>
</tr>
<tr>
<td>Cadet Deposits</td>
<td>680.42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6,852.54</strong></td>
</tr>
</tbody>
</table>

Net Cash Balance July 1, 1916: 29,150.62
### Cash Receipts:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Account</td>
<td>$272,380.43</td>
</tr>
<tr>
<td>Cadet Fund</td>
<td>$136,487.01</td>
</tr>
<tr>
<td>Cadet Deposits Account</td>
<td>$60,970.87</td>
</tr>
<tr>
<td>Adams Fund</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Hatch Fund</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Farm Products Account</td>
<td>$2,395.89</td>
</tr>
<tr>
<td>Re-investment Account</td>
<td>$78,604.89</td>
</tr>
<tr>
<td>Smith-Lever Federal Fund</td>
<td>$38,767.11</td>
</tr>
<tr>
<td>Smith-Lever State Fund</td>
<td>$28,767.11</td>
</tr>
<tr>
<td>Smith-Lever Direct State Appropriation</td>
<td>$2,614.89</td>
</tr>
<tr>
<td><strong>Total all funds combined</strong></td>
<td><strong>$680,138.82</strong></td>
</tr>
</tbody>
</table>

### Expenditures:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Account</td>
<td>$244,755.76</td>
</tr>
<tr>
<td>Cadet Fund</td>
<td>$144,491.59</td>
</tr>
<tr>
<td>Cadet Deposits Account (Checks Paid)</td>
<td>$59,958.45</td>
</tr>
<tr>
<td>Adams Fund</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Hatch Fund</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Farm Products Account</td>
<td>$2,349.08</td>
</tr>
<tr>
<td>Re-investment Account</td>
<td>$83,040.36</td>
</tr>
<tr>
<td>Smith-Lever Federal Fund</td>
<td>$38,767.11</td>
</tr>
<tr>
<td>Smith-Lever State Fund</td>
<td>$28,767.11</td>
</tr>
<tr>
<td>Smith-Lever Direct State Appropriation</td>
<td>$2,614.89</td>
</tr>
<tr>
<td><strong>Total All Funds Combined</strong></td>
<td><strong>$634,744.34</strong></td>
</tr>
</tbody>
</table>

### Cash Balances June 30, 1917:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Fund</td>
<td>$59,077.08</td>
</tr>
<tr>
<td>Farm Products Account</td>
<td>$68.12</td>
</tr>
<tr>
<td>Cadet Deposits</td>
<td>$332.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$59,477.20</strong></td>
</tr>
</tbody>
</table>

### Less Overdrafts June 30, 1917:

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadet Fund</td>
<td>$3,475.13</td>
</tr>
<tr>
<td>Re-investment Fund</td>
<td>$10,607.59</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$45,394.48</strong></td>
</tr>
</tbody>
</table>

**Total**: $680,138.82
GENERAL STATEMENT OF CASH ACCOUNT

(Fiscal Year Ending June 30, 1917)

Balances to Account for, as per Ledger:

College Account -------------------------- 59,077.08
Farm Products Account ------------------- 68.12  59,145.20

Deduct Overdrafts:

Cadet Fund ----------------------------- 3,475.13
Re-investment Fund --------------------- 10,607.59  14,082.72

Cash to Account for June 30, 1917, Close of Business  45,062.48

Accounted for as follows:

Then Bank of Anderson (Cashier's Cert.)  3,000.00
Farmers & Merchants Bank, Anderson,
  S. C. (Cashier's Cert.) ---------------- 3,000.00
Pickens Bank (Cashier's Cert.) ---------- 3,000.00
The National Bank of Sumter (C's Cert.) 3,000.00
American Bank, Greenville (Cashier's C.) 3,000.00
The Exchange Bank, Newberry (C. C.)_ 3,000.00
Farmers Bank of Abbeville, (Cash's C.) 3,000.00
The National Bank, Abbeville (Cash's C.) 3,000.00
The National Bank, Newberry (Cash's C.) 3,000.00
The Peoples Savings Bank, Abbeville,
  Cashier's Cert.) _____________________ 500.00
The Bank of McCormick, (Cashier's C.)  500.00
The Palmetto National Bank, Columbia,
  S. C., (Cashier's Cert.) _____________ 10,000.00
The Bank of Troy, (Cashier's Cert.) ___ 1,500.00
Balances as per Ledger (No checks out
  June 30, 1917) _________________________ 39,500.00  39,500.00
The Bank of Pendleton (Cashier's Cert.) 31,984.67

Less Checks Outstanding (As audited):

College and Cadet Funds ---------------- 20,480.64
Re-investment Fund --------------------- 1,400.81
Hatch Fund ___________________________  16
Adams Fund __________________________  873.57
Farm Products Account ________________  763.58
Smith-Lever Federal Fund _____________ 1,152.23
Smith-Lever State Fund _______________ 1,462.31
Smith-Lever Fund Direct State ________  288.89

26,422.19

Balance as per Ledger (Bk. of Pendleton) 5,562.48  5,562.48

Total Cash in Banks, Close of Business June 30, '17  45,062.48
Summary of Cash on Hand and in Banks:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cash in Banks as above</td>
<td>45,062.48</td>
</tr>
<tr>
<td>Cash in Office—&quot;Cadet Deposits&quot; as per Cash Book</td>
<td>332.00</td>
</tr>
<tr>
<td>Grand total all Funds</td>
<td>45,394.48</td>
</tr>
</tbody>
</table>

Debit:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on hand July 1, 1917</td>
<td>45,394.48</td>
</tr>
</tbody>
</table>

Cash Received July 1 to July 31, 1917:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morrill Fund</td>
<td>25,000.00</td>
</tr>
<tr>
<td>Hatch Fund</td>
<td>3,750.00</td>
</tr>
<tr>
<td>Adams Fund</td>
<td>3,750.00</td>
</tr>
<tr>
<td>Re-investment Fund</td>
<td>45.95</td>
</tr>
<tr>
<td>Clemson Bequest</td>
<td>1,756.18</td>
</tr>
<tr>
<td>Landscip</td>
<td>2,877.00</td>
</tr>
<tr>
<td>Smith-Lever State Fund</td>
<td>41,843.07</td>
</tr>
<tr>
<td>Petty Funds</td>
<td>4,415.84</td>
</tr>
<tr>
<td>Cadet Fund</td>
<td>6,965.13</td>
</tr>
<tr>
<td>Cadet Deposits</td>
<td>242.00</td>
</tr>
<tr>
<td></td>
<td>90,645.17</td>
</tr>
</tbody>
</table>

Total to Account for (Close of Bus. July 31, '17) 136,039.65

Credit:

Cash Disbursements July 1 to 31, 1917 (as per Ledger):

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Fund</td>
<td>20,934.23</td>
</tr>
<tr>
<td>Cadet Fund</td>
<td>7,602.77</td>
</tr>
<tr>
<td>Re-investment Fund</td>
<td>1,890.94</td>
</tr>
<tr>
<td>Hatch Fund</td>
<td>556.91</td>
</tr>
<tr>
<td>Adams Fund</td>
<td>683.28</td>
</tr>
<tr>
<td>Smith-Lever Fund</td>
<td>427.55</td>
</tr>
<tr>
<td>Cadet Deposits (checks paid)</td>
<td>1,695.99</td>
</tr>
<tr>
<td></td>
<td>33,791.67</td>
</tr>
</tbody>
</table>

Cash Balance to Account for July 31, 1917 102,247.98

Accounted for as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Anderson</td>
<td>10,500.00</td>
</tr>
<tr>
<td>Farmers and Merchants Bank, Anderson</td>
<td>44,843.07</td>
</tr>
<tr>
<td>Pickens Bank</td>
<td>3,000.00</td>
</tr>
<tr>
<td>National Bank, Sumter</td>
<td>3,000.00</td>
</tr>
<tr>
<td>American Bank, Greenville</td>
<td>3,000.00</td>
</tr>
<tr>
<td>Exchange Bank, Newberry</td>
<td>3,000.00</td>
</tr>
<tr>
<td>Farmers Bank, Abbeville</td>
<td>3,000.00</td>
</tr>
<tr>
<td>National Bank, Abbeville</td>
<td>3,000.00</td>
</tr>
<tr>
<td>National Bank, Newberry</td>
<td>3,000.00</td>
</tr>
<tr>
<td>Peoples' Saving Bank, Abbeville</td>
<td>500.00</td>
</tr>
<tr>
<td>Bank of McCormick</td>
<td>500.00</td>
</tr>
<tr>
<td>Bank Name</td>
<td>Amount</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Palmetto National Bank, Columbia</td>
<td>10,000.00</td>
</tr>
<tr>
<td>Union Savings Bank, Bennettsville</td>
<td>4,633.18</td>
</tr>
<tr>
<td>Bank of Troy</td>
<td>1,500.00</td>
</tr>
<tr>
<td>Bank of Pendleton</td>
<td>19,293.42</td>
</tr>
<tr>
<td>Less Checks out July 31, '17</td>
<td>2,928.59</td>
</tr>
<tr>
<td></td>
<td>96,404.84</td>
</tr>
</tbody>
</table>

Cash in office: 5,843.14

Total Cash (Close of Business July 31, 1917): 102,247.98

Close of Business August 1, 1917:

- Balance—Cash on Hand August 1, 1917: 5,843.14
- Cash Received August 1, 1917: 442.37

Less Cash Paid out August 1, 1917: 41.05

Cash on Hand Close of Business August 1, 1917: 6,244.46

GENERAL STATEMENT OF CASH ON HAND.
(Reviewed by the Auditor, August 2, 1917)

<table>
<thead>
<tr>
<th>Type of Currency</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Currency and Legal Tender:</td>
<td></td>
</tr>
<tr>
<td>Twenty Dollar Bills</td>
<td>$40.00</td>
</tr>
<tr>
<td>Ten Dollar Bills</td>
<td>1,340.00</td>
</tr>
<tr>
<td>Five Dollar Bills</td>
<td>2,120.00</td>
</tr>
<tr>
<td>One Dollar Bills</td>
<td>1,000.00</td>
</tr>
<tr>
<td>Two Dollar Bills</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Gold Coin:

- Five Dollar Pieces: 10.00
- Two and one-half Dols: 2.50

Silver and Minor Coin:

- Dollars: 20.00
- Halves: 60.00
- Quarters: 90.00
- Dimes: 25.00
- Nickels: 10.00
- Coppers: 4.00

Total Actual Cash Counted: $4,975.65

Items Counted as Cash:

- U. S. Money Orders (Audited): 293.13
- Checks for Deposit: 785.36

Total: 1,078.49
Advances on Traveling Expenses _______ 997.48
Anvances on Pay Roll 328.00 75.10 403.10
Miscellaneous Memoranda 169.29 54.75 224.04
Checks Paid _______ 94.07 94.07
Cadet Fees Refunded _______ 26.06 26.06 2,823.24

Total Cash and Items Counted as Cash ___________ $7,798.89

Deduct:
Cash Received Since Balance (See Receipt No. 1055) 25.55
Cash on hand close of business August 2, 1917 __________ 7,773.34
Less amount advanced for Pay Roll, Bank of Pendleton,
Included _________________________________ 1,528.88

Balance as per Cash Book, Close of Business Aug. 2, 17 __$6,244.46
Report of the Board of Visitors

To the Honorable, the Board of Trustees, Clemson College.

On Wednesday May the 2nd, the undersigned, members of the Board of visitors, met for the purpose of inspection of the college plant. Our Chairman, the Hon. Charlton Durant, was unable to be present on account of the illness and death of his child. The other members were absent because of business or professional engagements that could not be put off.

We were accompanied on the tour of inspection by Dr. Riggs, your efficient president, and by Prof. Barre and Newman. We were impressed with the magnificent college plant, the efficient work done not only in the education of the youth of our state and preparing them for active and practical participation in the problem of life, but the valuable information and useful help given free to the farmers of our state by the experimental stations and the extension work connected with the college.

In this connection, we wish to say a word of the work of Dr. W. W. Long and his co-laborers for the betterment of the people of our State. It would be impossible to put too much emphasis on the importance of this department. Dr. Long is working day and day out to prepare the people to be able to meet the boll weevil menace. The work done by this department will be of incalculable benefit to our people when the boll weevil becomes a stern reality. Another thing this department is doing that appeals to us very strongly; the creation of markets for the surplus raised on our farms. The co-operative creamery is an instance of this useful help.

We inspected the orchards, vineyards, farms, and barns of the experimental station, and found them all well kept and fully abreast of the times. As Clemson is essentially an agricultural college, this feature is a very important part of the work, and we are glad to say we think the college is living up to the high ideals of its illustrious founders.

We were pleased with the way the fertilizer department is managed, and feel quite sure that the interest of the farmers of the state in the matter of fertilizer analysis is carefully guarded by Mr. Stackhouse, Dr. Brackett, and their able corps of assistants. In this connection, we wish to say that this department of the college has at times been criticised by some of our farmers because of, what seemed to them, useless red tape in getting fertilizers analyzed. This criticism is unjust, and if the complainants would take the trouble to go to Clemson and investigate, they would have their minds disabused of this idea. Certain rules and regulations are absolutely necessary in order to be just and fair to all parties—the manufacturer as well as the planter.
They both have rights that should be safeguarded as a matter of simple justice.

We examined the accounting system used by the college, and were much impressed by its completeness and thorough adaptability to the needs of the situation. Mr. S. W. Evans, the competent and affable treasurer, showed us through his department. It is a complete and thorough system of accounting and leaves out nothing to be desired.

Clemson is to be congratulated upon the beautiful Y. M. M. C. A. building which has been erected at a small expense to the college, the majority of the funds for the building having been contributed by private parties and the Association of Graduates. With this useful building, Clemson is thereby better enabled to look after the moral training of its students as well as the mental and the physical.

We witnessed a dress parade, and were much impressed by the military and manly bearing of the entire corps. We must commend this now important feature of the college, and feel sure that Clemson will compare favorably with any institution in the state giving military training.

We visited the kitchens and the mess hall, and found everything neat and sanitary. The food is well prepared, nutritious, and wholesome. No parent need have any apprehension at all about the gastronomic side of the college, but can rest assured that his boy is well fed. The system used in preparing and serving the food is excellent, and shows the evidence of a master hand at the helm. The gentleman who manages this department is a marvel in business efficiency. We took a meal in the mess hall at the same time the corps of cadets were at dinner. The food served us was the usual bill of fare served the cadets, and no one could possibly have cause to complain for the want of plenty of well prepared food, palatable and nutritious.

The Textile department was visited by us last. We found it conducted in the usual efficient manner so common to Clemson. Prof. Doggett showed us through his department, and explained in a very entertaining manner the different details with which we were not familiar. The number of students in this department seemed rather small as compared with some of the other departments of the college. We consider the Textile department one of the important departments of the college, and especially so in view of the fact that our state is making great strides in the cotton manufacturing industry.

Respectfully Submitted,
(Signed)

W. P. ODOM,
JAS. M. MOSS.
Report of the South Carolina Experiment Station
Including the Sub-Stations

I have the honor of submitting herewith a summary of the Thirtieth Annual Report of the South Carolina Experiment Stations for the fiscal year ending June 30, 1917.

The main station and both of the sub-stations continue to make progress in their work. The following is a list of the projects that are now being prosecuted:

**Division of Agronomy**

A study of the factors influencing earliness in cotton.
Experiments to determine the relation that exists between soil types and the length of cotton fiber.
Test of about thirty varieties of cotton.
Experiments to determine the effect of pollen from barren stalks of corn on the yield of corn.
Variety tests with corn.
Improvement of corn by the ear-to-row method of breeding.
Test with forage crops and grasses.
Experiments to determine the limiting factors in crop production.
Experiments to determine the value of various rotations and the value of winter cover crops.
Breeding experiments with barley, oats and wheat.
Tests with varieties of wheat, oats, cowpeas, rye, soy beans, velvet beans, etc.
Experiments to determine relative cost of production of cotton, corn, oats and peas.
Variety tests with sweet potatoes.
Variety tests with peanuts.
Variety tests with velvet beans.
Tobacco breeding experiments.
Experiments with hog grazing crops.
Fertilizer test with peanuts.
Experiments in methods of gathering and handling velvet beans.

**Division of Animal Husbandry and Dairying.**

Experiments to determine the value of velvet bean and soy bean meal in rations for dairy cows.
Experiments to determine cause of inferior texture common to southern butter.
Experiments to determine to what extent different feeds effect the quality of butter.
Comparison of different carbohydrates as supplements to cottonseed meal in milk production.
Testing the comparative value of linty and lintless cotton seed hulls as part of roughage in dairy ration.
Grading up herd by use of Hereford bull and native scrub cows as foundation stock.
Testing forage crops for pork production.
Comparison of corn meal and rice meal in pork production.
Experiments to determine value of cottonseed meal as part ration for horses and mules.
Grading up mares for mule production by use of Percheron stallion on native mares.

Division of Botany.

Experiments for control of Anthracnose in cotton.
A study of the factors influencing the vitality of the Anthracnose fungus in cotton seed.
Study of seed and seedlings in their association with the angular leaf spot.
Study of experiments to determine the best method of controlling angular leaf spot of cotton.
The breeding of varieties of cotton resistant to cotton wilt.
Experiments to determine the causes of the shedding of cotton.
Breeding of strains of cotton resistant to drought.
Breeding of early maturing varieties of cotton with which to fight the boll weevil.
Variety tests with cotton to determine the varieties best suited for growth under boll weevil conditions.
Study of the plant diseases of South Carolina with a view of determining conditions influencing outbreaks and distribution of same, etc.
Investigation of a new serious disease of corn.
Experiments in forestry with a view of determining the best methods of reforesting the coastal region of the state.

Division of Entomology

Experiments to determine relations of temperature and moisture to insect activity.
Investigations of wireworm and methods of controlling same.
Experiments to control the heavy armored scale insects, with oil emulsions.
Experiments to determine methods of controlling cabbage bug, bud worm, tobacco worm, cotton root louse, cottony cushion scale by lady birds, argentine ant, etc.
Division of Horticulture.

Experiments with apples: Breeding new varieties, effect of summer pruning on fruit buds, budding and grafting in its relation to crown gall and hairy root, variety tests and effect of different methods of planting.

Variety tests with pears and experiments with cultural methods as a means of controlling blight.

Persimmons: Testing Japanese varieties, collecting desirable native varieties and the top working of native varieties with Japanese and also desirable native varieties.

Variety and culture tests with peaches and plums and tests of extreme methods of pruning on early production.

A study of the factors influencing seed production in Irish potato.

Breeding Irish potatoes for improvement in quality and yield.

Tests with different methods of smudging with a view of determining the most economical way of protecting fruit from frost.

Experiments in growing onions from seed.

Strawberries: variety tests, fertilizer tests and tests of cultural methods.

Blackberries and Raspberries: Variety and pruning tests.

Variety and cultural tests with salsify, cauliflower, cabbage, lettuce, celery, lima beans, egg plant, pepper.

Breeding of rust resistant varieties of muskmelons.

Fertilizer test and test to determine the comparative yield from male and female asparagus plants.

Division of Soils and Chemistry.

Fertilizer experiments with corn.

Fertilizer experiments with cotton.

Experiments to determine the value of the different forms of lime in connection with incorporating organic matter at different times.

A study to determine the influence of soil type on the chemical composition of certain plants.

A study of the value of sulphur in rendering raw phosphate available.

A study of some of the beneficial and harmful results from mixing different fertilizer materials.

Fertilizer experiments with crops in rotation.

Methods of determining a practical way of saving potash from the ashes of wood and sawdust.

Miscellaneous analytical work.

Sub-Stations.

The work at the sub-stations has been enlarged and continued along the lines reported last year. The work conducted at these stations is
in cooperation with the various divisions of the main experiment station. Some of the most important lines of experimentation are as follows:

**Pee Dee Experiment Station.**

Fertilizer experiments with corn, cotton, small grain and cowpeas which all of the sources of plant food commonly used in fertilizers are tested singly and in all possible combinations and amounts. These are probably the most comprehensive soil fertility experiments in the south and much valuable data is being obtained from them. The results of the first three years' test will be published shortly.

Rotation experiments with the common farm crops without fertilizer and with different methods of fertilization.

Variety tests with corn, cotton and small grain.

Breeding work with corn. The Pee Dee No. 5 bred at this station is one of the best varieties for this section of the state.

Breeding cotton for productiveness, earliness and resistance to wilt.

Testing varieties of cotton and cowpeas for resistance to root-knot.

Variety tests with strawberries, peaches, plums and grapes.

Variety tests with sweet potatoes.

Experiments with methods of keeping sweet potatoes.

Variety tests and fertilizer tests with peanuts.

Breeding work with peanuts.

Experiments in growing and handling tobacco.

Variety and fertilizer tests with Irish potatoes.

Variety tests with lettuce and onions.

Variety tests with soy beans.

Extensive tests to determine the comparative value of rape, clover, vetch, soy beans, velvet beans, corn, small grain, sweet potatoes, cowpeas, peanuts and other crops in pork production.

A comparison of the Williamson method of corn culture with other methods in vogue in this section.

Distance and culture tests with corn.

**Coast Experiment Station.**

Fertilizer experiments with corn, cotton and small grain, somewhat similar to the ones conducted at the Pee Dee Station as mentioned above.

Rotation experiments with common farm crops.

Variety tests with cotton with a view of determining varieties best suited for growth under boll weevil conditions.

Variety tests with sweet potatoes.

Experiments with methods of keeping sweet potatoes.

Tests with various forage crops, legumes and grasses.

Tests with different winter cover crops.
Hog grazing and feeding experiments similar to those conducted at Clemson and Florence.

Experiments in reforesting the cut over pine lands of the Coastal Plain.

Tests of the relative value of Bermuda grass, white clover and lespedeza for pasture.

Publications.

During the year the following publications were issued by the South Carolina Experiment Station:


Besides these, fourteen press bulletins giving timely information on various subjects were issued.

The work of the stations as a whole has been very satisfactory and considerable progress has been made. I feel that various members of the staff are zealous in their endeavors to promote the agricultural interest of the state and of the nation. We realize also that the research agencies which must of course at all times pave the way for agricultural and industrial advancement have special services to render during these war times and I believe every member of the station staff is doing his best to meet the situation. Certain changes are being made in our organization and in our projects with a view of securing information which will be of immediate value in increasing food production.

A full report of the activities of the various divisions of the station will be found in the printed report prepared for the Legislature.

Respectfully submitted,

H. W. Barre.
Director.

To President W. M. Riggs,
November 1, 1917.
THE SOUTH CAROLINA EXPERIMENT STATION IN ACCOUNT
WITH U. S. APPROPRIATIONS.

1916-1917.

Dr. Hatch Fund Adams Fund

To Balance from appropriations for 1915-1916
Receipts from the Treasurer of the U. S., as per appropriations for fiscal year ended
June 30, 1917, under Acts of March 2, 1887, (Hatch Fund), and March 16, 1916, (Adams Fund) $15,000.00 $15,000.00

Cr.

By Salaries ___________________________ 6,052.16 8,769.63
Labor _________________________________ 4,246.95 3,498.56
Publications ___________________________ 602.40
Postage and stationery ___________________ 237.13 142.72
Freight and express _______________________ 234.52 64.77
Heat, light, water and power ____________ 92.87 166.89
Chemicals and laboratory supplies ________ 11.56 569.51
Seeds, plants and sundry supplies ________ 610.40 230.74
Fertilizers _____________________________ 743.20 290.30
Feeding stuffs __________________________ 904.57
Library ________________________________ 55.83 76.60
Tools, machinery and appliances __________ 187.40 471.55
Furniture and fixtures ____________________ 149.09 9.00
Scientific apparatus and specimens __________ 542.17
Traveling expenses ________________________ 247.02 9.41
Live stock ______________________________ 20.00
Contingent expenses ________________________
Buildings and land ________________________ 604.90 158.15

Total ____________________________ $15,000.00 $15,000.00

We, the undesigned, duly appointed Auditors of the Corporation, do hereby certify that we have examined the books and accounts of the Secretary-Treasurer of the South Carolina Agricultural Experiment Station for the fiscal year ended June 30, 1917; that we have found the same well kept and classified as above; that the balance brought forward from the preceding year was $0.00 on the Hatch Fund and $0.00 on the Adams Fund; that the receipts for the year from the Treasurer of the United States were $15,000.00 under the act of Congress of March 2, 1887, and $15,000.00 under the act of Congress of March 16, 1906, and the corresponding disbursements $15,000.00 and $15,000.00; for all of which proper vouchers are on file and have been by us examined and found correct, leaving a balance of $0.00 and $0.00.

And we further certify that the expenditures have been solely for
the purposes set forth in the acts of Congress approved March 2, 1887, and March 16, 1906, and in accordance with the terms of said acts, respectively.

(Signed) L. A. Searson,
Auditor.

S. W. Evans,
Custodian.

SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION
Including Re-Investment Funds of the Sub-Stations,
1916-1917
(Supplementary Statement)
(This supplementary statement, while not required by law, is desired as an aid in interpreting the account rendered for the United States appropriation. While it will be more useful if made in conformity with the schedule fixed for that appropriation, if this is not practicable, such a summary of receipt and expenditures from the sources indicated below as can be conveniently prepared from the books of the Station may be substituted. Whenever practicable it should be for the fiscal year ended June 30.)

Dr.
To Balance on hand $ 21.31
Receipts from other sources than the United States for the year ended 9,550.30
Cr.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>By Salaries</td>
<td>720.23</td>
</tr>
<tr>
<td>Labor</td>
<td>3,443.94</td>
</tr>
<tr>
<td>Publications</td>
<td>407.51</td>
</tr>
<tr>
<td>Postage and stationery</td>
<td>88.66</td>
</tr>
<tr>
<td>Freight and express</td>
<td>228.03</td>
</tr>
<tr>
<td>Heat, light, water and power</td>
<td>324.60</td>
</tr>
<tr>
<td>Chemicals and laboratory supplies</td>
<td>12.37</td>
</tr>
<tr>
<td>Seeds, plants and sundry supplies</td>
<td>1,529.63</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>1,709.19</td>
</tr>
<tr>
<td>Feeding stuffs</td>
<td>282.77</td>
</tr>
<tr>
<td>Library</td>
<td>10.27</td>
</tr>
<tr>
<td>Tools, machinery and appliances</td>
<td>260.00</td>
</tr>
<tr>
<td>Furniture and fixtures</td>
<td>26.31</td>
</tr>
<tr>
<td>Scientific apparatus and specimens</td>
<td>5.70</td>
</tr>
<tr>
<td>Live stock</td>
<td>75.60</td>
</tr>
<tr>
<td>Traveling expenses</td>
<td>65.78</td>
</tr>
<tr>
<td>Contingent expenses</td>
<td>313.10</td>
</tr>
<tr>
<td>Buildings and land</td>
<td>68.12</td>
</tr>
<tr>
<td>Balance</td>
<td>9,571.61</td>
</tr>
</tbody>
</table>

Total $9,571.61
Annual Report of Extension Division

From July 1, 1916—to—June 30, 1917.
(With Prospectus for 1916-17.)

The Extension Division has developed very rapidly for the past year, especially along the lines in which the farmers of South Carolina are vitally interested.

The work is classified under what is known as the "Project System."

There were at the end of the fiscal year June 30, 1916, 13 projects as follows:

1. Administration.
2. Printing and Distribution of Publications.
3. County Agents.
4. Home Economics.
7. Live Stock.
8. Dairying.
11. Poultry.
12. Marketing.

with 13 Specialists employed in addition to the county and district agents.

At the end of the fiscal year June 30, 1917 we had 16 Projects, the new work undertaken being:

Plant Pathology.
Boys' Club Work.
Entomology.

with 19 Specialists employed.

The esprit de corps and enthusiasm were never more manifest, nor of a higher quality. The greatest harmony and cordiality exists between the County Agents and our Specialists, and they work with special interest and helpfulness each to the other.

It may be of interest to know that of the 41 County Agents enrolled June 30, 1917 29 are graduates of Clemson; 6 of other Agricultural Colleges—Mississippi and North Carolina—of the remaining 6, 4 are graduates of Colleges other than Agricultural, and 2 are High School Graduates.

This record is an evidence of one of the innumerable services this College is rendering the State. The policy of selecting the Agents,
all things being equal, is to select Clemson graduates, as in this way
the State derives in part that benefit to which it is entitled from the
alumni. The average age of Specialists and County Agents is 33 years;
thus the mature mind and physical fitness belonging to this age make
for that efficiency and enthusiasm which are essential in field work.

As a matter of information it might be stated that the average
salary of the County Agents in South Carolina is $1,372.34. When
it is understood that every agent uses an automobile in making the
tour of his county, after deducting the expenses incident to the opera-
tion of the machine it will be seen that the average salary of the
County Agents will not exceed very much over $1,100.

Finances:
Schedule “A” attached hereto shows the resources amounting to
$118,316.94 for the fiscal year ending June 30, 1917.

SCHEDULE “A”

Federal Smith Lever Fund ____________________________ $ 38,767.11
State Smith Lever Fund ____________________________ 28,767.11
Direct State Fund ____________________________ 2,614.89
Colleges—Winthrop and Clemson _____________________ 6,447.57
Counties ____________________________ 33,838.36
Other Sources: (Marion Chamber of Commerce; Cotton-
seed Crusher’s Ass’n; State Bankers Ass’n; Co. Boards
of Education (women’s work); Winthrop College
Printing Fund) ____________________________ 7,881.90

$118,316.94*

Schedule “B” shows the disbursements for the resources according
to the 16 “Projects.”
### SCHEDULE "B"

Summary of Expenditures by "Projects" Showing Sources of Funds—Fiscal year ending June 30, 1917:

<table>
<thead>
<tr>
<th>Project</th>
<th>Total</th>
<th>Smith-Lever</th>
<th>Direct</th>
<th>Colleges</th>
<th>Counties</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Federal</td>
<td>State</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Administration</td>
<td>8423.64</td>
<td>3016.69</td>
<td>1284.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printing &amp; Dis. of Pub'n</td>
<td>3327.88</td>
<td>830.70</td>
<td>805.71</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>County Agents</td>
<td>41145.91</td>
<td>16365.80</td>
<td>10962.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Demonstration</td>
<td>43729.96</td>
<td>7093.00</td>
<td>7081.49</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Home Dem. &amp; Mill V. Wk.</td>
<td>2426.71</td>
<td>1250.00</td>
<td>1176.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negro Demonstration</td>
<td>1390.00</td>
<td>680.00</td>
<td>650.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live Stock</td>
<td>2219.43</td>
<td>1306.59</td>
<td>818.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairying</td>
<td>2730.25</td>
<td>1226.24</td>
<td>803.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agronomy</td>
<td>2211.52</td>
<td>1149.64</td>
<td>1001.34</td>
<td></td>
<td>.54</td>
<td></td>
</tr>
<tr>
<td>Horticulture</td>
<td>3378.63</td>
<td>1801.56</td>
<td>1320.18</td>
<td>4.48</td>
<td>252.41</td>
<td></td>
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<tr>
<td>Poultry</td>
<td>1761.88</td>
<td>1054.88</td>
<td>700.00</td>
<td>7.00</td>
<td></td>
<td></td>
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<tr>
<td>Marketing</td>
<td>1583.38</td>
<td>935.11</td>
<td>618.57</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Entomology</td>
<td>599.74</td>
<td>309.51</td>
<td>280.23</td>
<td></td>
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<tr>
<td>Plant Pathology</td>
<td>1741.69</td>
<td>758.36</td>
<td>550.00</td>
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<tr>
<td>Boys Club Work</td>
<td>1513.37</td>
<td>786.08</td>
<td>644.15</td>
<td>83.19</td>
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<td></td>
</tr>
<tr>
<td>Mill V. Work (Carberry)</td>
<td>290.00</td>
<td>200.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Expenditures</strong></td>
<td>$118316.94</td>
<td>$38767.11</td>
<td>$28767.11</td>
<td>6447.57</td>
<td>2614.89</td>
<td>$38767.11</td>
</tr>
</tbody>
</table>

### SCHEDULE "C."

Summary of Expenditures by "Items" Showing Sources of Funds—Fiscal Year ending June 30, 1917:

<table>
<thead>
<tr>
<th>Item</th>
<th>Total</th>
<th>Smith-Lever</th>
<th>Direct</th>
<th>Colleges</th>
<th>Counties</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Federal</td>
<td>State</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receipts for 1916-17</td>
<td>1168316.94</td>
<td>38767.11</td>
<td>28767.11</td>
<td>2614.89</td>
<td>6447.57</td>
<td>38767.11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>118316.94</td>
<td>38767.11</td>
<td>28767.11</td>
<td>2614.89</td>
<td>6447.57</td>
<td>38767.11</td>
</tr>
<tr>
<td>Salaries</td>
<td>29585.86</td>
<td>3139.54</td>
<td>22309.54</td>
<td>2451.07</td>
<td>5330.92</td>
<td>24815.63</td>
</tr>
<tr>
<td>Labor</td>
<td>385.99</td>
<td>250.45</td>
<td>85.57</td>
<td>37.50</td>
<td>10.47</td>
<td></td>
</tr>
<tr>
<td>Print &amp; Dis of Pubcations</td>
<td>3327.83</td>
<td>830.70</td>
<td>805.71</td>
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<td></td>
</tr>
<tr>
<td>Stationery &amp; small print'g</td>
<td>381.13</td>
<td>251.73</td>
<td>129.80</td>
<td>8.60</td>
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</tr>
<tr>
<td>Postage, Etc.</td>
<td>548.94</td>
<td>279.35</td>
<td>129.57</td>
<td>82.28</td>
<td>57.74</td>
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</tr>
<tr>
<td>Heat, Light, Etc.</td>
<td>5.10</td>
<td>5.10</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Supplies</td>
<td>256.28</td>
<td>196.39</td>
<td>18.43</td>
<td></td>
<td>40.46</td>
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</tr>
<tr>
<td>Library</td>
<td>22.30</td>
<td>16.00</td>
<td>5.00</td>
<td></td>
<td>1.30</td>
<td></td>
</tr>
<tr>
<td>Tools, Etc.</td>
<td>147.80</td>
<td>114.00</td>
<td>31.80</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
<td>667.51</td>
<td>137.19</td>
<td>297.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scientific apparatus, Etc.</td>
<td>140.60</td>
<td>140.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Live Stock</td>
<td>19985.00</td>
<td>501.76</td>
<td>4258.64</td>
<td>35.44</td>
<td>291.69</td>
<td>902.23</td>
</tr>
<tr>
<td>Traveling Expenses</td>
<td>72.00</td>
<td>72.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contingent Expenses</td>
<td>118316.94</td>
<td>38767.11</td>
<td>2914.89</td>
<td>6447.57</td>
<td>38767.11</td>
<td>7881.90</td>
</tr>
</tbody>
</table>

* This total of $118,316.94 does not include an approximate amount of $75,000 paid by
the U. S. Department of Agriculture for salary and travel of Department Specialists working in cooperation with the Extension Division, and the contribution of the Department to County Agent, Home Demonstration and other work. The above detailed statement covers only all expenditures passing through the Extension Office.

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**FORCE IN DEMONSTRATION AND EXTENSION WORK**

_During Fiscal Year 1916-1917._

(Paid Jointly by Clemson College, the U. S. Department of Agriculture, Chambers of Commerce, etc.)

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Extension</td>
<td>W. W. LONG</td>
</tr>
<tr>
<td>Asst. State Agent</td>
<td>W. H. Barton</td>
</tr>
<tr>
<td>Eastern District Agent</td>
<td>C. A. McFaddin</td>
</tr>
<tr>
<td>Central District Agent</td>
<td>W. R. Elliott</td>
</tr>
<tr>
<td>Western District Agent</td>
<td>W. P. Stewart</td>
</tr>
<tr>
<td>Livestock Demonstration Expert</td>
<td>J. O. Williams</td>
</tr>
<tr>
<td>Livestock Demonstration Agent</td>
<td>L. W. Summers</td>
</tr>
<tr>
<td>Prof. Animal Husbandry</td>
<td>R. L. Shields</td>
</tr>
<tr>
<td>Dairy Expert</td>
<td>W. W. Fitzpatrick</td>
</tr>
<tr>
<td>Assistant Dairyman</td>
<td>H. T. Converse</td>
</tr>
<tr>
<td>Assistant Dairyman</td>
<td>D. W. Watkins</td>
</tr>
<tr>
<td>Assistant Dairyman</td>
<td>E. A. Onsrud</td>
</tr>
<tr>
<td>Assistant Dairyman</td>
<td>D. D. Elliott</td>
</tr>
<tr>
<td>Livestock Expert</td>
<td>P. H. Calvin</td>
</tr>
<tr>
<td>Poultry Husbandman</td>
<td>F. C. Hare</td>
</tr>
<tr>
<td>Dairy Manufacturing Expert</td>
<td>J. A. Raitt</td>
</tr>
<tr>
<td>Prof. of Horticulture</td>
<td>C. C. Newman</td>
</tr>
<tr>
<td>Extension Horticulturist</td>
<td>G. P. Hoffmann</td>
</tr>
<tr>
<td>Asst. Extension Horticulturist</td>
<td>W. O. Davis</td>
</tr>
<tr>
<td>Asst. Extension Horticulturist</td>
<td>A. E. Schilletter</td>
</tr>
<tr>
<td>Market Agent</td>
<td>F. W. Hof Mann</td>
</tr>
<tr>
<td>Corn Breeding Expert</td>
<td>F. G. Tarbox</td>
</tr>
<tr>
<td>Soil Chemist</td>
<td>T. E. Keitt</td>
</tr>
<tr>
<td>Prof. Entomology</td>
<td>A. F. Conradi</td>
</tr>
<tr>
<td>Field Entomologist</td>
<td>C. E. Littlejohn</td>
</tr>
<tr>
<td>Director of Experiment Station</td>
<td>H. W. Barre</td>
</tr>
<tr>
<td>Field Pathologist</td>
<td>J. L. Seal</td>
</tr>
<tr>
<td>Cotton Breeding Expert</td>
<td>E. E. Hall</td>
</tr>
<tr>
<td>Special Mill Agent</td>
<td>J. L. Carbery</td>
</tr>
<tr>
<td>Supervising Agent Boys’ Club Work</td>
<td>L. L. Baker</td>
</tr>
<tr>
<td>Chief Clerk</td>
<td>W. L. Green</td>
</tr>
<tr>
<td>Treasurer</td>
<td>S. W. Evans</td>
</tr>
<tr>
<td>Clerk</td>
<td>T. M. Cathcart</td>
</tr>
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</table>
Clerk ----------------------------------------------- R. B. Waters
Stenographer ------------------------------- Miss M. A. Faulconer
Stenographer ----------------------------------- Miss Belle Sayre
Stenographer ------------------------------------- Jessie E. Wilson
Stenographer ----------------------------------- Mrs. E. Bellinger
Stenographer ----------------------------------- Miss M. E. Evans

COUNTY DEMONSTRATION AGENTS

Fiscal Year 1916-17

Abbeville ------------------------------------------ J. E. Cheatam
Aiken --------------------------------------------- H. S. Johnson
Anderson ------------------------------------------ S. M. Byars
Bamberg ------------------------------------------- J. J. Heard
Barnwell ------------------------------------------ H. G. Boylston
Beaufort ------------------------------------------ F. J. McKinley
Berkeley ------------------------------------------ B. M. Hudson
Calhoun ------------------------------------------ S. F. Ried
Charleston ---------------------------------------- C. F. Niven
Cherokee ------------------------------------------ R. E. Grabel
Chester ------------------------------------------ J. A. Riley
Chesterfield -------------------------------------- W. J. Tiller
Clarendon ----------------------------------------- P. H. Senn
Colleton ------------------------------------------ F. W. Risher
Darlington ---------------------------------------- J. M. Napier
Dillon -------------------------------------------- S. W. Epps
Dorchester ---------------------------------------- D. L. McAlhany
Edgefield ----------------------------------------- P. N. Lott
Fairfield ---------------------------------------- R. H. Lemmon
Florence ------------------------------------------ J. W. McLendon
Greenville ---------------------------------------- A. H. Chapman
Greenwood ---------------------------------------- C. B. Faris
Hampton ------------------------------------------ J. G. Lawton
Horry -------------------------------------------- M. W. Wall
Jasper ------------------------------------------- L. B. Altman
Kershaw ------------------------------------------ Walter Sorrell
Lancaster------------------------------------------ C. L. McManus
Laurens ------------------------------------------ P. W. Moore
Lee --------------------------------------------- S. N. Welsh
Lexington ----------------------------------------- J. W. Shealy
Marion ------------------------------------------ Colin McLaurin
Marion ------------------------------------------ W. T. Patrick
Marlboro ----------------------------------------- S. E. Evans
McComick ---------------------------------------- N. G. Thomas
Newberry ---------------------------------------- T. M. Mills
Oconee ------------------------------------------ G. M. Barnett
Orangeburg --------------------------------------- L. S. Wolfe
Note: The average salary of the County Agents for the fiscal year ending June 30, 1917, was $1,372.34.

Note: All Demonstration Agents are not employed for the full twelve months.

I shall now discuss briefly the work as accomplished under the different Projects.

First: Administration Project.

The office force engaged in administering this important branch of the College work consists of a Director, a Clerk and two Stenographers. The total salaries paid this force aggregate $7,732.50. The cost of administration is six and a half per cent of the total expenditure of funds, including only the $118,316.94 expended through this office.

Second: Printing and Distribution of Publications

This work is divided into two distinct kinds, one having to do with publications and the other with publicity. During the year the publication work has increased greatly; at the present we have a very valuable collection of extension bulletins. There is a growing demand for these bulletins: especially from non-residents. If this demand continues to increase it will be necessary to charge a small sum to cover cost of publication. We have distributed approximately 75,000 bulletins during the year.

The publicity part of the work has greatly increased and most satisfactory results have been obtained. We continue to issue Weekly News Notes. This has proven to be one of the most valuable features of the work. The mailing list for this publication has grown rapidly. The list is made up of farmers, bankers, editors and commercial men. There were fifty issues of the weekly news notes with an average of ten timely articles to the issue. In order that the popularity of the news notes may be appreciated, for a period of three months there were 139 articles printed in the news notes and 91 of them were copied by the different papers of the state. During the year we sent out three free agricultural plate sheets to 58 South Carolina papers.
Third: County Agents Work

The cropping season of 1916 was probably an unprecedented season for poor results in ordinary crop production. However, we have cause for great encouragement and gratification over results obtained along many lines of work. The County Agents have made regular weekly or monthly visits to 9,919 farms, assisted in directing the agricultural operations of 362,927 acres of demonstration crop of all kinds. The owners of these farms have saved 622,166 tons of stable manure, sowed 32,264 demonstration acres in wheat, 138,000 in winter cover crops, 4,049 have field selected seed corn, 6,471 have home-mixed their fertilizers and cooperatively purchased 11,745 tons of fertilizers at a saving of $24,712.00. The number of visits by county agents was 50,860. The number of miles travelled by the Agents in performance of official duties was 267,244. There are many other activities in which the Agents were engaged.

NEGRO WORK.

The extension work with the negro farmers is carried on in cooperation with the Negro State Agricultural and Mechanical College at Orangeburg, S. C., under the supervision of R. S. Wilkerson, President of the Institution. There is a growing interest on the part of the negroes in the demonstration work and we believe that additional funds should be appropriated for this work, and to that end we have added three negro agents to the present force.

THE LIVESTOCK PROJECT

The livestock work as conducted in this state may be sub-divided into different lines of effort, each of which will be taken up and discussed briefly.

(a) Permanent Pastures:
We have talked and urged that permanent pastures be given the first consideration in the establishment of livestock on the farm, as this constitutes the first essential in the economic production of livestock. During the past year, 27 of these demonstrations have been conducted in various counties for the establishment of permanent pastures for beef production, while 561 pastures demonstrations have been conducted in the production of hogs. Practically all of our permanent pasture demonstrations have been a combination of Bermuda grass and Bur Clover.

(b) Forage Crops:
The economic production of livestock in the south depends on the growing of feed stuffs on the farm and the utilization of these feeds in the feeding of stock. Until pastures and roughages are produced in abundance, the advent of the farmer in the production of livestock
has been discouraged. However, many farmers have undertaken this work in a conservative way. Five hundred and fifty-two forage crop demonstrations have been conducted with the farmers in the production of hogs.

(c) Hog Work:
Many farmers have adopted a rotation of crops for hogs and have produced pork economically. Many of these men have carried on their work on a demonstration basis with this office, through the specialists and the county agent. Thirty-nine such demonstrations with a total of 537 hogs have been carried on during the past year.

(d) Importation of Purebred Cattle:
No cooperative shipments of cattle were brought into the state in the past year. One herd of 27 head was purchased for Mr. Jno. A. Young, Clinton, S. C., at a cost of approximately $5,000. We have kept in close touch, however, with inquiries coming into the office and have tried to supply the demand through local breeders, always giving our home breeders first consideration.

(e) Cooperative Feeding and Marketing of Cattle:
There were 4,164 cattle placed on feed to which assistance was rendered in the feeding of same. Of this 4,164, there were 1,432 which were good beef grades brought into the state as feeders while the remaining number, 2,732, were native cattle of various grades. We assisted in the sale of 573 of these cattle.

DAIRY PROJECT.

We have five men engaged in field work during the entire year. For the first time we have been able to answer calls promptly in all parts of the state. Two men were located at Clemson College, one at Darlington, one at Orangeburg and one at Spartanburg. These field men have devoted their time chiefly to development work for the future, such as Bull Associations, Feed Campaign, Dairy Schools, the construction of Dairy Buildings and the purchase of dairy cattle.

BUILDINGS.

We assisted in the construction of twenty-six silos located in all parts of the state. It is our policy to give personal assistance only where there are no other silos in the community. We mailed out bills of materials to one hundred and sixty farmers for the construction of silos. In this way we helped to decide upon the type and capacity of silos where no assistance was given in the construction. We assisted in the building or remodelling of twenty-seven dairy barns during the year. We furnished plans for twenty additional barns where no personal assistance was given in the construction. There is a growing
tendency among the dairy farmers to construct sanitary and permanent buildings so that they may meet the inspection of the city health departments. Our field men also assisted in the construction of thirteen milk houses.

**CATTLE PURCHASED**

During the year we made eight trips outside the state to buy cattle. On these trips we were usually accompanied by a representative of the farmer who made the purchases on our recommendations. We bought altogether about twenty-five thousand dollars worth of cattle including about thirty high class registered bulls.

At every meeting during the past year we laid more stress on the necessity of producing feed for the cows than any other topic. We especially emphasized the importance of growing corn for the silos, velvet beans and rye for pasture.

There are now four creameries in the state, each making the "Palmetto State" brand of butter. One of these, the Orangeburg Creamery, was established this year. This creamery is making butter, ice cream, cottage cheese, and distributes the entire milk supply of the city.

As a result of the high price now being paid for whole milk in the principal cities of the state a great many farmers who were formerly patrons of the Palmetto State Creameries are now selling milk to dealers in the cities. There has also been a decided increase in the amount of milk and cream used in ice cream making and this affords a market for dairymen. At least thirty farmers who became interested in dairying by shipping cream to the Clemson College Creamery are now shipping either whole milk or sweet cream to Greenville or Spartanburg for a much better price than the Creamery could pay them. Around Liberty alone over fifty dollars worth of milk is shipped to Greenville daily. At Wisacky, S. C. farmers are shipping over one hundred dollars worth of milk daily to Charleston for which they receive an average price of about forty cents per gallon.

We have always kept herd records with dairymen in different parts of the state in order to demonstrate to them the value of keeping up with each cow in the herd. This work is carried until the individual farmers appreciate its value and keep it up themselves. As a result of work of this nature several farmers have recently begun the official testing of several cows in their herds. The Taylor Plantation, Columbia, S. C., are testing twenty cows. One of these cows is making a very fine record and will probably finish her test as one of the ten high records of the breed. Several Holstein breeders are carrying on official tests and three Guernsey breeders in Lee County have recently started this work.
SCHOOL WORK.

We held all-day dairy schools in sections where farmers were most interested in dairying. Eighteen of these schools were held in the year. We usually gave a demonstration of judging Jersey cattle; demonstrated models of cheap cow stalls and a simple water-heating device and gave talks on feeding, breeding, etc. During the year a total of two hundred and twelve meetings were attended and twenty-five hundred and fifty farm visits made. We assisted in organizing the Guernsey Breeders of the State in a State Association, the purpose of which is to contribute information regarding the breed and to assist the members in the sale and purchase of cattle.

BULL ASSOCIATIONS.

Five new associations were organized during the year at Orangeburg, Laurens, Walhalla, Campobello and Florence. With the three Associations formed last year, we now have nine associations in the State, which is more than any other State. The four associations located in the Piedmont have selected the Jersey, while the other five, located in the Pee Dee, have chosen the Guernsey as the principal breed. We purchased the bulls for all of these associations and in every case selected only those whose dams have official records of more than four hundred pounds of butter fat.

We aided in the establishment of one Calf-Club in Florence County. This Club has a membership of seventy-five boys, for each of whom we purchased a grade Guernsey heifer in Wisconsin. We found during the year that we have most success in those sections where we developed community interest by the establishment of Calf Clubs, Bull Associations, or rather cooperative associations.

AGRONOMY PROJECT

The chief object of this work is to furnish the farmers a reliable source for good seed corn at reasonable prices. So often in ordering seed corn, the farmer gets seed which is either not of very good quality, or unsuited to his conditions. Both the climate and the soil affect corn to a considerable degree, and it is of great importance that good seed be secured from a place where the soil and climate approach, as near as possible, those on the home farm. In order to assist the farmers of the state in securing seed of this kind, systematic breeding work is being conducted in twelve sections of the state for the purpose of producing seed of good quality in sufficient quantities and at reasonable prices, so that the farmers can secure seed which is of good quality and suited to their conditions. The first breeding patches were planted in 1916 and, although the stormy weather in late summer damaged the plots considerably, the tests proved to be an object lesson and the results obtained were such that the farmers with whom
we are cooperating became greatly interested, and at present are carrying out instructions with the intention of continuing the work. It is the intention of this division to continue this work in a systematic manner with the same men, from year to year, and develop a well-defined and improved variety of corn for each of the twelve sections.

In addition to the breeding work, variety tests are being made with several varieties which have been considered the best. These varieties are planted in each of the twelve sections in order to determine which are best and, if any one or more prove of special value to the sections in which they are grown. Results of these tests are published at the end of each year, in order that the farmers of the state can see which is doing best. The farmers of each section can visit the tests at any time, and so become familiar with the varieties and determine for themselves which variety will be suited for his conditions, and not have to rely on advertisements. The variety tests will be continued each year and the poorest ones eliminated. The tests this year are very good and the results obtained have been gratifying to those with whom the work is being done, and has caused them and others to become more interested in selecting good varieties and breeding better seed.

HORTICULTURE PROJECT.

Our demonstrative and cooperative work along this line, appearing in forty-three counties in South Carolina, comprises 255 home, local, commercial and experimental orchards, aggregating 41,072 trees and vines; 50 of which, aggregating 7,500 trees and vines, were established during the period covered by this report. The co-operative orchards being worked in South Carolina and handled through correspondence and irregular visits of both our special and local agents during this period comprise 361 home, local and commercial orchards, with an aggregate of 36,300 trees and vines.

Orchards having been worked in this state, either directly or indirectly due to the influence of cooperative, demonstrative and extension work, during the period covered by this report number 1,173 with an aggregate of 118,059 trees and vines. Many of these orchards are new, but the larger per cent are old orchards that are being renovated.

There were four commercial cooperative canneries established, Newberry, Pelzer, Eloree and Columbia. The capital stock of the largest one was $5,000 and the smallest $3,000. The canning at all of these canneries was done in such a way as to care for all produce brought to the plants, as work was done on toll, cash or direct purchase and payment in market value of canned stock.

The canneries were established for the purpose of conserving the surplus products of the farms in the different communities. The four canneries furnished a profitable market and put up for the patrons and local market 73,949 cans of assorted canned stock, which averaged
at $2.00 per dozen amounts to $12,324.82. This amount represents the total estimated receipts, the net profit of which is estimated by the officials as being $6,162.41.

There have been established eleven standard sweet potato storage houses in the last year, two of which houses are community cooperative houses having a capacity of 3,000 bushels each. The remaining nine houses are individual houses ranging from 300 to 1,200 bushels in storage capacity. The total number of bushels of potatoes stored in the standard storage houses is approximately 6,000 bushels.

POULTRY PROJECT.

Inasmuch as we only have one Poultryman, we have thought it the wise policy to establish and to develop representative poultry plants in the counties of Oconee, Greenville, Spartanburg, Union, Richland, Sumter, Darlington, Marlboro, Lancaster, and Clarendon. The primary object in assisting in establishing these poultry plants in the counties mentioned is to obtain a number of creditable breeding centers from which purebred poultry of the popular breeds, such as Plymouth Rocks, Rhode Island Reds, Wyandottes, Orphingtons and Leghorns, can be procured by farmers and others at reasonable prices. There are 8,400 fowls at these plants and under the supervision of our Poultryman. There was organized by our Poultryman the South Carolina Poultry Breeders Association consisting of 80 members from all parts of the State. There is a tremendous interest all though the State in the question of poultry as is evidenced by the heavy correspondence of our Poultry Expert; his correspondence for the year amounted to 2,096 letters. A most excellent bulletin was prepared by our Poultryman, the title of which is "Poultry Culture in South Carolina"—this has been one of our most popular bulletins and some ten thousand copies have been distributed.

MARKETING PROJECT.

Much of the work carried on for the past year is a continuation of the work which we began some two years ago. Assistance was rendered to requests for the marketing of a large variety of commodities, but a greater portion of the time was devoted to the following crops: Asparagus, Strawberries, Potatoes, Canteloupes, Water melons.

During the asparagus season, the growers of the South Carolina Asparagus Growers Association in Barnwell, Aiken, Edgefield and Saluda Counties, which was organized two summers ago, were assisted in marketing their crops. They marketed 92 cars of asparagus in the Northern markets, prices ranging from $6.88 at the beginning of the season to $1.95 at the end of the season. The Asparagus Growers are now organized into a splendid organization and their product, although as yet not quite as good as that of the California Growers,
is nevertheless a formidable competitor with California and is rapidly becoming recognized as one of the superior grades in the market.

The Strawberry District in South Carolina, lies in Horry County. After considerable effort, these growers were organized into associations, one at Conway, Adrian and the other at Loris. Arrangements were made with the South Carolina Growers to affiliate with the Growers of North Carolina; this affiliation insured a larger tonnage and in that way the berries could be shipped in carloads. The Growers employed a selling agency with representatives in important markets in the North. Heretofore the growers sold to buyers on the local tracks who practically monopolized the strawberry market and therefore paid very low prices. When the track buyers saw that the growers had been organized, they immediately resorted to all kinds of methods to bring about dissatisfaction in the association. The methods of the track buyers gave considerable trouble and threatened during the season to disrupt the growers association. After considerable labor we managed to hold them together and there is every indication that the organization will be stronger next season than ever before.

The growers of cabbage, peaches, potatoes and watermelons were aided in very much the same way as that in the case of the Asparagus and Strawberry growers. These growers were given advice as to the markets daily, inasmuch as an arrangement had been made with the Office of Markets in Washington to furnish market reports by wire.

MILL VILLAGE PROJECT (Carbery).

Owing to the fact that the agent in charge of the Mill Village Work was transferred from Beaufort to Rock Hill in the latter part of the spring, he was greatly delayed in taking up the Mill Village Work, with the different Mills. However, he was enabled to interest 19 Mills which furnished him the means to secure eleven local demonstrators.

There were organized at these mills, 316 Garden Clubs with a membership of 940. From these gardens many families were furnished with not only fresh vegetables during the summer, but a bountiful supply of canned goods for winter usage. The general results, conservatively estimated and expressed in percentages, of the different lines of work undertaken at the 19 mills are as follows:

Home Sanitation, 60 per cent; Village Sanitation, 70 per cent; Health Standards, 75 per cent; Home Gardens and Flower Yards, 85 per cent; Methods and Conservation of Soil Fertility, 80 per cent; Home Grown Vegetables, 75 per cent; Home Canning, 60 per cent; Irish Potato Culture, 40 per cent; Sweet Potato Culture, 50 per cent; Pork Production, 15 per cent; Dairy Cows and Production, 10 per cent; Home Beautification, 85 per cent; Junior Savings Accounts, 75 per cent; Social Life Features, 50 per cent; Church and Sunday School attended, 35 per cent; Day School attendance, 40 per cent; Night School attendance, 50 per cent.
BOYS' CLUB WORK.

The Boys' Club Work is a part of the work of the County Agents but under the supervision of Mr. L. L. Baker. This work has been growing in interest, especially the Pig Club Work. The total number of boys enrolled in the Corn Club was 1,063. The total number of boys reporting was 488. The total number of bushels produced by the Corn Club Boys was 20,797 at a cost of $9,315.19; the average cost per bushel was 44 cents, average number of bushels per acre was 46.

The number of boys enrolled in the Pig Club Work was 1,048. The number of boys making their reports was 351; the number of hogs owned and fattened by the boys was 614; the care and the feeding of the 614 hogs was $3,927.70; the value of the hogs at the time of making the report was $12,207.25, leaving a net profit of $8,133.92 as a result of the year's work.

Realizing the necessity and importance of good breeding stock and being aware of the scarcity of pure-bred hogs in the state, emphasis was placed upon the importance of breeding stock to start with, rather than the growing of hogs for pork purposes, as we wish the boys to have a good foundation stock in the beginning which would insure them a greater value from the care, labor and means expended. The economy of production through the use of grazing crops and farm waste was advised.

THE POLICY OF PREPAREDNESS.

The timely action of the State legislature enabling the College to secure the annually increasing appropriations from the Lever Fund has made it possible for the College, through its Extension division to meet efficiently and effectively conditions growing out of the war, and to prepare the people for the advent of the boll weevil. This is also true with reference to the Emergency appropriation made by the National Congress. While we are now enjoying a great season of prosperity brought about by abnormal conditions, unless we show the greatest wisdom in developing our agriculture within the next three years, great foresight is not required to see that our agricultural interests will be sorely affected and disaster will come to a great many of our farmers. The boll weevil is in the State. That knowledge convinces me of the foregoing prediction. The national Government is now appealing to us to develop our livestock industry and become more self-sustaining largely from the standpoint of patriotism. We should allow this appeal to influence and direct us, but there is another equally important reason—our self-preservation. South Carolina stands thirty-ninth state in the number of live stock owned by its farmers. There are only two agricultural states that have a less number. We are told that there is a decrease of 115,000,000
in the world's meat producing animals brought about by the worldwide war. Great inroads are being made into the breeding stock of this country. If the war continues as is thought for two years longer, breeding stock will sell at prohibitive prices. It is a well known fact that it is with the dairy cow and the hog that we are to continue the prosperity of the State under weevil conditions. It will be the policy of the Extension division of this College to utilize the increased funds in the employment of additional experts to combat the weevil. Dairy experts will be employed for the development of the dairy interest by instructing the farmers how to properly care for dairy cattle, erection of silos, making of permanent pastures and the growing of forage crops; employment of experts to increase hog production in the State, by breeding, correct feeding, pasturing and general care. Experts will be employed in developing early maturing varieties of cotton seed, the breeding and selecting of high yielding varieties of corn adaptable to different sections of the State; the employment of Marketing experts to organize local cooperative marketing associations in order that the farmer may have a local market every day in the year, where he can sell all the products of the farm other than cotton. Heretofore a number of the County Agents, for want of sufficient funds, were employed for only ten months, having been furloughed for two months. Out of the increased funds they will be employed for the entire year. We had great trouble in retaining competent men in these positions because they were not willing to be idle for one-sixth of the year. This difficulty is now overcome. The increase in the funds for the women's work, as carried on by Winthrop College, is utilized in the employment of 13 additional agents in order that each county may have an agent, and the employment of 19 assistant county home demonstration agents in as many counties. The employment of the 19 assistants was urged by the United States Department of Agriculture from which fund they are entirely paid.

Our budget beginning the fiscal year July 1, 1916 from all sources was $192,628.63. Only $118,316.94 of this was paid out on vouchers approved by this office. The remainder was paid direct from Washington. There were employed during this fiscal year from July 1, 1916 to June 30, 1917 in the Extension division of Clemson College eighty-five men and one woman; in the Extension division of Winthrop College thirty-seven women and one man, a total of one hundred and twenty-four employees. The entire salaries of one hundred and seventeen of these employees were paid from this budget, the salaries of seven being paid in part, and the travelling expenses of twenty-six of these employees were entirely paid from this budget.
THE PRESENT FISCAL YEAR.

I have to advise that for the fiscal year, which began July 1, 1917 and terminates June 30, 1918, the total prospective resources will amount to $261,844.48; derived from:

Federal Smith Lever .............................................. $ 51,843.07
State Smith-Lever .............................................. 41,843.07
U. S. Department of Agriculture ................................ 58,290.00

Colleges:
  Clemson—Travel E. E. Hall ................................. $ 700.00
  Winthrop .................................................. 6,345.00
  Negroes ................................................................ 200.00— 7,245.00

Emergency War Fund U. S. D. A. ................................. 48,000.00

Counties:
  Men's work ................................................... 12,593.34
  Women's work ................................................. 34,275.00— 46,868.34

Others:
  Orangeburg Marketing Association ......................... $ 1,500.00
  Gaffney Marketing Association .............................. 1,500.00
  County Boards of Education, Women's work ................ 4,755.00— 7,755.00

Total ...................................................................... $ 261,844.48

There are employed in the Extension division of Clemson College at the present time ninety-five men and two women; in the Extension division of Winthrop College fifty-eight women and one man, a total of one hundred and fifty-six employees. The salaries of twelve of these employees are largely paid from sources other than the Extension Division. The entire travelling expenses of twenty-six of these employees are paid from this budget, an increase of thirty-two in the number of employees paid from this budget. It will be observed that our budget for this year shows an increase over last year of $69,215.85; of this increase $22,844.47 is for Home Demonstration Work conducted by Winthrop College, leaving an increase of $46,371.38 for the Extension division of Clemson College.

We have outlined above how the increase is being expended in the different lines of work. While this budget represents a very large amount of money, it must be understood that the greater part of it comes from the national Government and the State could not have the benefits of this trained body of men and women unless it had furnished some part of the funds of the budget. The organization cannot be kept at the present high state of efficiency unless the national Government continues its Emergency appropriation of $48,000.00—the withdrawal of this fund will be a very serious matter.

I do not believe that I will be charged with the want of proper modesty if attention is called to the very valuable work of the Demonstration organization, both men and women, in the campaign last spring for food production and the campaign during the summer
months for food conservation. Mr. D. R. Coker, Chairman of the State Council of Defense, in his report to the Governor as to the results obtained in this campaign was generous enough to state that the success of the campaign was largely due to the unselfish service of the demonstration forces. Again, by reason of the increased appropriations, the Extension division of this College was enabled to put on, within the past three weeks, the most active and far-reaching campaign for the increased acreage of wheat and the increased production of pork that was ever inaugurated in this country. Representatives from this College visited every rural school within the State and addressed the children and placed in their hands a letter describing the food situation and a pledge card to be given to their parents, asking their cooperation in this most important undertaking. Two hundred pledge cards were placed with each of the four hundred banks; cards were distributed in all the State Educational Institutions, Denominational Colleges and private schools. The interest aroused has been general and far reaching. The newspapers carrying full columns calling the people's attention to this important matter and urging immediate action. The pledge cards are now being received in the Extension Division by the hundreds and a large percentage promise an increase in the acreage of wheat to be seeded and a large increase in pork production. This campaign is well worth to the State several times the amount of the increase of the appropriations that the College has received this year from all sources.

Respectfully,

W. W. LONG,
Director.

To President W. M. Riggs.
Nov. 28, 1917
Report of Secretary of Fertilizer Board of Fertilizer Inspection.

Pursuant to your directions I hereby respectfully submit the following partial report of the Fertilizer Department to June 1, 1917.

For purposes of comparison with last year the following exhibit is submitted, viz:

<table>
<thead>
<tr>
<th></th>
<th>To June, 1916</th>
<th>1917</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertilizers other than meal sold (tons)</td>
<td>530,920</td>
<td>735,347</td>
</tr>
<tr>
<td>Cottonseed Meal (tons)</td>
<td>124,468</td>
<td>107,087</td>
</tr>
<tr>
<td>Number fertilizer analyzed (official)</td>
<td>1,595</td>
<td>1,581</td>
</tr>
<tr>
<td>Number of farmers samples analyzed</td>
<td>427</td>
<td>242</td>
</tr>
</tbody>
</table>

It will be seen that the total fertilizer tonnage exceeds that of last year by 204,427 tons, while that of cotton seed meal was less by 17,381 tons. This was perhaps due in part to enlarged use in the manufacture of mixed fertilizers and to its growing use as stock food. Though the prices of all fertilizer materials were relatively higher than last year, and notably this was true of potash—yet the increased number of complete fertilizers found on the market this season would indicate growing demands by buyers and ability of the trade to furnish this class of fertilizers. The continuation of the war and resulting high prices, has stimulated the domestic production of potash to promising stages that may cheapen its cost in future. But exorbitant cost of freights on imports of nitrate and other materials may further enhance cost of these and very materially shorten our supply.

INSPECTION.

The usual number of inspectors entered on their work January 18th each on the District to which he was assigned and remained until May the second, when all indications showed the movement for the season over. These inspectors were hampered in their work by the prevalence of rain and bad weather during nearly the entire season.

A problem of unusual interest developed relative to sale and delivery of shipments along our boundary lines, North Carolina on one side and Georgia on the other. After much correspondence and comparison with the Departments in those states, we think a mode has been adopted that will obviate further confusion and trouble from this source.

Half the number of inspectors were employed during the fall months inspecting the Oil Mills and fertilizers sold for small grain.
### Official Fertilizer Samples.
#### Classification.

<table>
<thead>
<tr>
<th></th>
<th>1915-16</th>
<th>1916-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete fertilizers</td>
<td>385</td>
<td>504</td>
</tr>
<tr>
<td>Home mixtures</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Special Mixtures (phosphoric acid and ammonia)</td>
<td>555</td>
<td>641</td>
</tr>
<tr>
<td>Acid phosphates</td>
<td>200</td>
<td>120</td>
</tr>
<tr>
<td>Acid phosphates with potash</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Cottonseed meals</td>
<td>245</td>
<td>205</td>
</tr>
<tr>
<td>Kainits</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Nitrate of soda</td>
<td>33</td>
<td>46</td>
</tr>
<tr>
<td>Dried Blood</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Fish</td>
<td>19</td>
<td>7</td>
</tr>
<tr>
<td>Tankage</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>Sulphate of ammonia</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Bone meal</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Basic slag</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Whale guano</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Fertilizing materials (Stuckey law)</td>
<td>54</td>
<td>1</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dificient Samples</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Of the 1594 samples above classified, thirty-three are omitted from the discussion which follows. These thirty-three samples are:

Five samples, which for good and sufficient reasons the Secretary of the Board of Fertilizer Control did not publish, of which three were complete fertilizers, one a dried blood, and one containing phosphoric acid and ammonia only.

- Two home mixtures.
- Two acid phosphates, one with no guarantee, and one a duplicate from last season, analysis requested in August 1916.
- Three cotton seed meals without guarantee.
- One each: nitrate of soda without guarantee; fertilizing material (Stuckey Law); bat guano; goat manure; limestone; marl; sulphate of limp.

- Six samples of castor bean meal.
- Eight samples of ground phosphate rock.

Of the remaining 1561 samples 228 fell below the commercial value based on the guarantee. They are as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In available phosphoric acid</td>
<td>28</td>
</tr>
<tr>
<td>In ammonia</td>
<td>116</td>
</tr>
<tr>
<td>In potash</td>
<td>15</td>
</tr>
<tr>
<td>In available phosphoric acid and ammonia</td>
<td>32</td>
</tr>
<tr>
<td>In available phosphoric acid and potash</td>
<td>8</td>
</tr>
<tr>
<td>In ammonia and potash</td>
<td>26</td>
</tr>
<tr>
<td>In available phosphoric acid, ammonia and potash</td>
<td>3</td>
</tr>
</tbody>
</table>

228
Last season, out of 1520 samples, 252 or 16.57 per cent were deficient in commercial value based on guarantee, while this season the number so deficient is only 14. 61 per cent.

The extent to which these 228 samples fell below the guaranteed analysis in per cent is as follows:

<table>
<thead>
<tr>
<th>Analysis</th>
<th>0-0.1</th>
<th>0.1-0.25</th>
<th>0.25-0.50</th>
<th>0.50-1</th>
<th>1&amp;over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available phosphoric acid</td>
<td>14</td>
<td>23</td>
<td>14</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Ammonia</td>
<td>49</td>
<td>34</td>
<td>37</td>
<td>44</td>
<td>10</td>
</tr>
<tr>
<td>Potash</td>
<td>7</td>
<td>12</td>
<td>16</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>69</td>
<td>67</td>
<td>69</td>
<td>20</td>
</tr>
</tbody>
</table>

Of the 228 samples which fell below the commercial value based on guarantee, eighty-five fell three per cent or more below that value. They are as follows:

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available phosphoric acid</td>
<td>4</td>
</tr>
<tr>
<td>Ammonia</td>
<td>34</td>
</tr>
<tr>
<td>Potash</td>
<td>5</td>
</tr>
<tr>
<td>Available phosphoric acid and ammonia</td>
<td>19</td>
</tr>
<tr>
<td>Available phosphoric acid and potash</td>
<td>4</td>
</tr>
<tr>
<td>Ammonia and potash</td>
<td>18</td>
</tr>
<tr>
<td>Available phosphoric acid, ammonia and potash</td>
<td>1</td>
</tr>
</tbody>
</table>

Last season, out of 252 samples which were deficient in commercial value based on guarantee, ninety-two or 36.5 per cent were three per cent or more deficient, while this season the number so deficient is eighty-five out of 228 or 37.28 per cent, a slight increase.

The extent to which these eighty-five samples, deficient three per cent or more in commercial value based on guarantee, fell below the guaranteed analysis in per cent is as follows:

<table>
<thead>
<tr>
<th>Analysis</th>
<th>0-0.1</th>
<th>0.1-0.25</th>
<th>0.25-0.50</th>
<th>0.50-1</th>
<th>1&amp;over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available phosphoric acid</td>
<td>0</td>
<td>10</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Ammonia</td>
<td>7</td>
<td>10</td>
<td>18</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>Potash</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>25</td>
<td>32</td>
<td>45</td>
<td>18</td>
</tr>
</tbody>
</table>

In addition to the 228 samples which were deficient in commercial value based on guarantee, there were 477 samples which fell below guarantee in one or more ingredients, the deficiency being made up, however, by an excess of other constituents. They are as follows:
In available phosphoric acid -------------------------- 150
In ammonia ---------------------------------------- 224
In potash ---------------------------------------- 75
In available phosphoric acid and ammonia -------- 8
In available phosphoric acid and potash --------- 15
In ammonia and potash -------------------------- 5

Last season, out of 1520 samples, 378 or 24.86 per cent were deficient in one or more ingredients, but not deficient in commercial value based on guarantee, while this season the number so deficient is 30.56 per cent, or 477 out of 1561 samples, a considerable increase.

The extent to which these 477 samples fell below the guaranteed analysis in per cent is as follows:

<table>
<thead>
<tr>
<th></th>
<th>0-0.1</th>
<th>0.1-0.25</th>
<th>0.25-0.50</th>
<th>0.50-1</th>
<th>1&amp;over</th>
</tr>
</thead>
<tbody>
<tr>
<td>In available phosphoric acid</td>
<td>53</td>
<td>45</td>
<td>38</td>
<td>28</td>
<td>10</td>
</tr>
<tr>
<td>In ammonia</td>
<td>130</td>
<td>74</td>
<td>34</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>In potash</td>
<td>40</td>
<td>32</td>
<td>8</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

223  151  80  39  11

In connection with the subject of deficiencies, the results of some of the analyses this season as compared with last season are interesting:

**Acid Phosphates**

<table>
<thead>
<tr>
<th></th>
<th>1915-1916</th>
<th>1916-1917</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed 16 per cent.</td>
<td>194</td>
<td>114</td>
</tr>
<tr>
<td>Deficient</td>
<td>39(20.10%)</td>
<td>15(13.16%)</td>
</tr>
<tr>
<td>Deficient three per cent. or more</td>
<td>9(4.65%)</td>
<td>2(1.75%)</td>
</tr>
</tbody>
</table>

This shows that the 16 per cent acid phosphates on the market this year are of rather better quality than were the same goods analysed last year. Of the three samples of these goods guaranteed 14 per cent analysed this year all were found up to their guarantee while last season out of six samples one was found deficient but not three per cent. in commercial value. There was analysed this year also one sample guaranteed 13 per cent and found up to its guarantee.

**Acid Phosphate With Potash:** No sample guaranteed 10-0-4 was received last year, while the one such sample this year was found deficient in potash, but not in commercial value. Last year we analysed six samples with a guarantee of 10-0-2, of which four were deficient and one of these was three per cent or more deficient in commercial value, while this year no sample of this guarantee fell into our hands.

In connection with the potash deficiencies not only in acid phosphate with potash, but also in other mixed goods, the following summary for the last thirteen years is interesting. It is to be noted that
none of the deficient samples quoted were deficient in relative commercial value:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Samples</th>
<th>Deficient in One or more Ingredients</th>
<th>Deficient in Potash only</th>
<th>Deficient in Potash Per cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1905</td>
<td>522</td>
<td>165</td>
<td>53</td>
<td>32.12</td>
</tr>
<tr>
<td>1906</td>
<td>655</td>
<td>201</td>
<td>62</td>
<td>39.84</td>
</tr>
<tr>
<td>1907</td>
<td>743</td>
<td>153</td>
<td>34</td>
<td>22.22</td>
</tr>
<tr>
<td>1908</td>
<td>713</td>
<td>161</td>
<td>54</td>
<td>33.54</td>
</tr>
<tr>
<td>1909</td>
<td>805</td>
<td>197</td>
<td>85</td>
<td>43.14</td>
</tr>
<tr>
<td>1910</td>
<td>1188</td>
<td>235</td>
<td>86</td>
<td>36.60</td>
</tr>
<tr>
<td>1911</td>
<td>1605</td>
<td>393</td>
<td>182</td>
<td>46.31</td>
</tr>
<tr>
<td>1912</td>
<td>1689</td>
<td>380</td>
<td>225</td>
<td>59.21</td>
</tr>
<tr>
<td>1913</td>
<td>1922</td>
<td>389</td>
<td>90</td>
<td>23.13</td>
</tr>
<tr>
<td>1914</td>
<td>2537</td>
<td>534</td>
<td>113</td>
<td>21.16</td>
</tr>
<tr>
<td>1915</td>
<td>1227</td>
<td>333</td>
<td>107</td>
<td>32.13</td>
</tr>
<tr>
<td>1916</td>
<td>1598</td>
<td>378</td>
<td>54</td>
<td>14.28</td>
</tr>
<tr>
<td>1917</td>
<td>1594</td>
<td>477</td>
<td>75</td>
<td>15.72</td>
</tr>
</tbody>
</table>

This summary shows that of the samples deficient in one or more ingredients, but not deficient in commercial value, a very large percentage are deficient in potash only. This deficiency was especially large during the years 1909 to 1912, inclusive. There was a marked drop in the years 1913 and 1914, but in 1915 the percentage deficiency was the same as in 1905. The low percentage deficiency this season is rather more significant than it was last year, as there were about 115 more complete fertilizers analysed this season than last, while the total number of samples analysed was about the same.

**Top Dressers:**

There was a slight improvement in the goods of this class analysed this season as compared with last, as far as the samples found three per cent or more deficient are concerned. Of the sixty-one samples discussed below, 43 or 70.49 per cent were found deficient, and of these nine or 14.75 per cent of the whole number were found three per cent or more deficient, while last year the total number of top dressers discussed was forty-seven and of these 70.21 per cent. were found deficient, 27.65 per cent. being three per cent. or more deficient in commercial value.

Three each of the following guarantees were analysed with the results indicated: 4-7 1/2-1, one found up to its guarantee, one deficient in ammonia but not in commercial value, and one deficient in ammonia and three or more per cent. deficient in commercial value; 4-7 1/4-2 1/2, one found up to its guarantee, one deficient in ammonia but not three per cent., and one deficient in potash and three per cent. or more deficient in commercial value.

One each of the following guarantees: 4-6 1/2-1, 2-10-0, and 6-10-0 all found up to guarantee; 5-8 1/2-0, deficient in ammonia but not in
commercial value; 4-10-0, deficient in ammonia, but not three per cent. in commercial value; 4-8-0, deficient in ammonia and three per cent. in commercial value.

Sixteen of the guarantee 0-9-3, of which six were deficient, and three were three per cent. or more deficient in commercial value. Three of the deficient samples were deficient in ammonia only, and of these one was not deficient in commercial value, one was not three per cent. deficient and the third was three per cent. deficient in commercial value. One of the deficient samples was deficient in potash only, but not three per cent. deficient in commercial value, while two of the deficient samples were deficient in both ammonia and potash, and three or more per cent. deficient in commercial value. This is a much better showing than was made last year by this class of goods, when seven out of eight samples were found deficient, and four were three per cent. or more deficient, and these four samples were deficient in both ammonia and potash.

Two samples of the guarantee 0-9-1 were found deficient in ammonia, but not deficient in relative commercial value.

Sixteen samples of the guarantee 4-7½-0: eleven of which were found deficient, all of which were deficient in ammonia only. Five of the eleven were not deficient in commercial value, five were not three per cent. deficient, and one was three per cent. deficient in commercial value. This is not so good a showing as made by this class of goods last year, when out of fourteen samples seven were found up to their guarantee and only one three per cent. deficient in commercial value.

Fifteen samples of the guarantee 5-10-0 were analysed this season, of which 12 were deficient, and seven three per cent. or more deficient. Of these twelve, eleven were deficient in ammonia only, four not being deficient in commercial value, four not three per cent. deficient and three were three per cent. or more deficient in commercial value. One of the deficiencies was deficient in phosphoric acid only and was not deficient in commercial value. As compared with last season, this is a trifle better showing, with the same total number of samples and the same number of deficiencies, there being only one half as many samples deficient three per cent. or more.

The worst showing among top dressers was made by the goods guaranteed 4-7½-0 and 5-10-0, the latter being among the worst last year also.
Averages of Analyses.

<table>
<thead>
<tr>
<th></th>
<th>1916-1916</th>
<th></th>
<th>1916-1917</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Found</td>
<td>Guaranteed</td>
<td>Found</td>
<td>Guaranteed</td>
</tr>
<tr>
<td>Acid Phosphates</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available phosphoric acid</td>
<td>16.40</td>
<td>15.94</td>
<td>16.62</td>
<td>15.93</td>
</tr>
<tr>
<td>Insoluble phosphoric acid</td>
<td>0.48</td>
<td>0.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total phosphoric acid</td>
<td>16.88</td>
<td>17.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Mixtures (Acid Phosphate with Ammonia)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available phosphoric acid</td>
<td>8.85</td>
<td>8.46</td>
<td>8.76</td>
<td>8.19</td>
</tr>
<tr>
<td>Insoluble phosphoric acid</td>
<td>1.05</td>
<td>1.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total phosphoric acid</td>
<td>9.90</td>
<td>9.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td>3.71</td>
<td>3.60</td>
<td>3.67</td>
<td>3.55</td>
</tr>
<tr>
<td>Complete Fertilizers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available phosphoric acid</td>
<td>8.73</td>
<td>8.12</td>
<td>8.70</td>
<td>8.09</td>
</tr>
<tr>
<td>Insoluble phosphoric acid</td>
<td>0.92</td>
<td>0.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total phosphoric acid</td>
<td>9.65</td>
<td>9.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia</td>
<td>3.42</td>
<td>3.24</td>
<td>3.31</td>
<td>3.14</td>
</tr>
<tr>
<td>Potash soluble in water</td>
<td>1.49</td>
<td>1.39</td>
<td>2.13</td>
<td>2.00</td>
</tr>
<tr>
<td>Cottonseed Meals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available phosphoric acid</td>
<td>2.31</td>
<td>1.51</td>
<td>2.44</td>
<td>1.51</td>
</tr>
<tr>
<td>Ammonia</td>
<td>7.05</td>
<td>7.00</td>
<td>6.88</td>
<td>6.98</td>
</tr>
<tr>
<td>Potash soluble in water</td>
<td>1.51</td>
<td>1.01</td>
<td>1.54</td>
<td>1.01</td>
</tr>
<tr>
<td>Nitrate of Soda</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonia (equivalent)</td>
<td>18.53</td>
<td>18.01</td>
<td>18.69</td>
<td>18.05</td>
</tr>
</tbody>
</table>

It has been customary to include in the above table acid phosphates with potash, but this year there was only one such sample, guaranteed 10.0-4, and found 10.90-0.391, while last year there were seven samples of this class of goods showing an average found 10.72-0.2.12 and the average guarantee 10.60-0.2.00 per cent.

It has also been customary to include in this table the averages of the kainits, muriates of potash and sulphates of potash. Last year there were three samples of kainit, showing an average of potash soluble in water found 13.44, while the average guaranteed was 12.00 per cent. There were no samples of muriate or of sulphate of potash received for analysis either this year or last, and no sample of kainit this year.

There has been included in the above table for the first time the averages for the special mixtures, containing available phosphoric acid and ammonia only, which appeared on the market for the first time after the opening of the European war in 1914. During the season 1914-1915 we received only 19 such samples, but in 1915-1916 the number of samples of such goods reached 555, and this year 641. These mixtures were, of course, put on the market on account of the shortage of potash. When the war began the manufacturers evidently had on hand quite large supplies of potash, which were practically exhausted when the season 1915-1916 opened. That there is a much
larger supply of potash available than was the case last year is shown by the fact that we received nearly 120 more samples of complete fertilizers this season than last.

The following table shows the averages of fertilizers from the time the Board of Trustees of the Clemson Agricultural College of South Carolina took charge of the fertilizer inspection down to the present time, or from 1891 to 1917, inclusive:
<table>
<thead>
<tr>
<th>Year</th>
<th>Acid Phosphates</th>
<th>Acid Phosphate with Potash</th>
<th>Complete Fertilizer</th>
<th>Cotton Seed Meals</th>
<th>Kainita</th>
<th>Muriate of Potash</th>
<th>Nitrate of Soda</th>
<th>Acid Phosphate with Ammonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890-1</td>
<td>49</td>
<td>13.02</td>
<td>19</td>
<td>11.84</td>
<td>1.65</td>
<td>173</td>
<td>9.34</td>
<td>2.68</td>
</tr>
<tr>
<td>1891-2</td>
<td>29</td>
<td>12.92</td>
<td>16</td>
<td>11.50</td>
<td>1.49</td>
<td>112</td>
<td>8.83</td>
<td>2.80</td>
</tr>
<tr>
<td>1892-3</td>
<td>48</td>
<td>12.32</td>
<td>26</td>
<td>11.63</td>
<td>1.23</td>
<td>150</td>
<td>9.00</td>
<td>2.91</td>
</tr>
<tr>
<td>1893-4</td>
<td>40</td>
<td>12.24</td>
<td>22</td>
<td>12.01</td>
<td>1.61</td>
<td>122</td>
<td>9.27</td>
<td>2.55</td>
</tr>
<tr>
<td>1894-5</td>
<td>46</td>
<td>12.55</td>
<td>15</td>
<td>12.09</td>
<td>1.65</td>
<td>87</td>
<td>9.42</td>
<td>2.55</td>
</tr>
<tr>
<td>1895-6</td>
<td>42</td>
<td>13.48</td>
<td>26</td>
<td>11.99</td>
<td>1.39</td>
<td>115</td>
<td>9.31</td>
<td>2.64</td>
</tr>
<tr>
<td>1896-7</td>
<td>59</td>
<td>13.61</td>
<td>34</td>
<td>12.96</td>
<td>1.51</td>
<td>137</td>
<td>9.55</td>
<td>2.70</td>
</tr>
<tr>
<td>1897-8</td>
<td>69</td>
<td>12.97</td>
<td>60</td>
<td>11.54</td>
<td>2.06</td>
<td>141</td>
<td>9.16</td>
<td>2.70</td>
</tr>
<tr>
<td>1898-9</td>
<td>73</td>
<td>13.74</td>
<td>63</td>
<td>11.77</td>
<td>1.99</td>
<td>134</td>
<td>9.22</td>
<td>2.73</td>
</tr>
<tr>
<td>1899-1900</td>
<td>73</td>
<td>13.58</td>
<td>63</td>
<td>11.58</td>
<td>2.00</td>
<td>124</td>
<td>9.00</td>
<td>2.73</td>
</tr>
<tr>
<td>1900-1</td>
<td>56</td>
<td>14.00</td>
<td>55</td>
<td>11.49</td>
<td>2.65</td>
<td>130</td>
<td>9.40</td>
<td>2.87</td>
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<tr>
<td>1901-2</td>
<td>45</td>
<td>14.11</td>
<td>61</td>
<td>11.19</td>
<td>2.05</td>
<td>141</td>
<td>9.28</td>
<td>2.84</td>
</tr>
<tr>
<td>1902-3</td>
<td>51</td>
<td>13.74</td>
<td>55</td>
<td>10.94</td>
<td>2.05</td>
<td>139</td>
<td>9.02</td>
<td>2.69</td>
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<tr>
<td>1903-4</td>
<td>59</td>
<td>14.32</td>
<td>75</td>
<td>11.12</td>
<td>2.11</td>
<td>181</td>
<td>9.12</td>
<td>2.90</td>
</tr>
<tr>
<td>1904-5</td>
<td>51</td>
<td>14.81</td>
<td>82</td>
<td>10.70</td>
<td>3.07</td>
<td>250</td>
<td>9.19</td>
<td>3.12</td>
</tr>
<tr>
<td>1905-6</td>
<td>87</td>
<td>14.95</td>
<td>94</td>
<td>10.97</td>
<td>3.00</td>
<td>375</td>
<td>8.26</td>
<td>3.26</td>
</tr>
<tr>
<td>1906-7</td>
<td>111</td>
<td>14.95</td>
<td>72</td>
<td>10.76</td>
<td>3.31</td>
<td>390</td>
<td>8.91</td>
<td>2.89</td>
</tr>
<tr>
<td>1907-8</td>
<td>114</td>
<td>14.71</td>
<td>74</td>
<td>10.67</td>
<td>3.34</td>
<td>383</td>
<td>9.37</td>
<td>3.01</td>
</tr>
<tr>
<td>1908-9</td>
<td>108</td>
<td>15.02</td>
<td>80</td>
<td>10.63</td>
<td>3.03</td>
<td>396</td>
<td>9.26</td>
<td>3.08</td>
</tr>
<tr>
<td>1909-10</td>
<td>159</td>
<td>15.18</td>
<td>74</td>
<td>10.16</td>
<td>3.54</td>
<td>599</td>
<td>8.89</td>
<td>2.31</td>
</tr>
<tr>
<td>1910-11</td>
<td>187</td>
<td>15.39</td>
<td>101</td>
<td>10.62</td>
<td>3.48</td>
<td>942</td>
<td>9.00</td>
<td>2.34</td>
</tr>
<tr>
<td>1911-12</td>
<td>180</td>
<td>16.42</td>
<td>116</td>
<td>10.68</td>
<td>3.35</td>
<td>990</td>
<td>9.07</td>
<td>2.46</td>
</tr>
<tr>
<td>1912-13</td>
<td>176</td>
<td>15.53</td>
<td>85</td>
<td>10.43</td>
<td>3.63</td>
<td>1199</td>
<td>8.80</td>
<td>3.54</td>
</tr>
<tr>
<td>1913-14</td>
<td>229</td>
<td>16.10</td>
<td>91</td>
<td>10.63</td>
<td>3.93</td>
<td>1223</td>
<td>8.79</td>
<td>3.44</td>
</tr>
<tr>
<td>1914-15</td>
<td>150</td>
<td>16.80</td>
<td>69</td>
<td>10.76</td>
<td>2.69</td>
<td>778</td>
<td>8.91</td>
<td>2.96</td>
</tr>
<tr>
<td>1915-16</td>
<td>200</td>
<td>16.60</td>
<td>77</td>
<td>10.72</td>
<td>2.12</td>
<td>282</td>
<td>8.77</td>
<td>2.42</td>
</tr>
<tr>
<td>1916-17</td>
<td>118</td>
<td>16.62</td>
<td>1</td>
<td>10.90</td>
<td>3.01</td>
<td>501</td>
<td>8.70</td>
<td>3.31</td>
</tr>
</tbody>
</table>

YEARN AVERAGE OF ANALYSES FROM 1891 TO 1917, INCLUSIVE.
In this table, as in the preceding ones, the ammonia yielded by the nitrogen in fertilizers is given instead of the nitrogen itself, as in the trade goods are still bought and sold on the ammonia basis. The per cent. of nitrogen is readily calculated, as fourteen-seventeenths of the ammonia is practically the per cent. of the nitrogen it contains.

**GRADES**

In the following table the number of acid phosphates, acid phosphates with potash, complete fertilizers, cotton seed meals, and special mixtures, containing available phosphoric acid and ammonia (acid phosphates with ammonia), of each grade, according to guarantee, is placed side by side with the number found on analysis to belong to that grade, fertilizers having commercial values equal to those of schedule grades being placed in these grades:

<table>
<thead>
<tr>
<th></th>
<th>High Claim-Found</th>
<th>Standard Claim-Found</th>
<th>Low Claim-Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid phosphates (118)</td>
<td>18</td>
<td>118</td>
<td>0</td>
</tr>
<tr>
<td>Acid phosphates with potash (1)</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Complete fertilizers (501)</td>
<td>223</td>
<td>232</td>
<td>238</td>
</tr>
<tr>
<td>Cotton seed meals (202)</td>
<td>0</td>
<td>13</td>
<td>198</td>
</tr>
<tr>
<td>Special mixtures (640)</td>
<td>50</td>
<td>56</td>
<td>179</td>
</tr>
<tr>
<td><strong>Total (1462)</strong></td>
<td><strong>392</strong></td>
<td><strong>420</strong></td>
<td><strong>615</strong></td>
</tr>
</tbody>
</table>

These results are due to the following changes in grade ascertained by analysis:

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>Low</th>
<th>Standard</th>
<th>High</th>
<th>High</th>
<th>Standard</th>
<th>No to</th>
<th>to</th>
<th>to</th>
<th>to</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid P. with potash (1)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Acid phosphate (118)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete fertilizers(501)</td>
<td>34</td>
<td>18</td>
<td>10</td>
<td>0</td>
<td>2</td>
<td>437</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cottonseed meals (202)</td>
<td>0</td>
<td>1</td>
<td>13</td>
<td>0</td>
<td>17</td>
<td>171</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Mixtures (640)</td>
<td>54</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>568</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total (1462)</strong></td>
<td><strong>89</strong></td>
<td><strong>37</strong></td>
<td><strong>10</strong></td>
<td><strong>0</strong></td>
<td><strong>31</strong></td>
<td><strong>1295</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This table shows that out of 1462 samples, 1295 were of the grade claimed for them, 126 were of a higher grade, and 41 were of a lower grade than that claimed for them. Last season out of 1392 samples, 1142 were of the grade claimed, 188 samples were of a higher, and 62 samples of a lower grade than that claimed for them. Expressed in percentages the figures for the season just before the Great War,
and for the three seasons since that war began are as follows:

<table>
<thead>
<tr>
<th>Season</th>
<th>Grade claimed.</th>
<th>Higher than Grade claimed</th>
<th>Lower than Grade claimed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1913-1914</td>
<td>88.42</td>
<td>9.99</td>
<td>1.57</td>
</tr>
<tr>
<td>1914-1915</td>
<td>85.95</td>
<td>6.37</td>
<td>7.67</td>
</tr>
<tr>
<td>1915-1916</td>
<td>82.04</td>
<td>13.50</td>
<td>4.45</td>
</tr>
<tr>
<td>1916-1917</td>
<td>88.57</td>
<td>8.62</td>
<td>2.89</td>
</tr>
</tbody>
</table>

This table shows that in the year just previous to the Great War about 98 per cent. of the samples analysed were of the grade claimed or higher, that in 1914-1915 there were about 92 per cent., in 1915-1916 about 95.50 per cent., and in 1916-1917 about 97 per cent. of the samples of the grade claimed or higher.

In order to compare the results of this season's grades with those of last season, the following summary is given:

<table>
<thead>
<tr>
<th>1915-1916</th>
<th>Claimed Above</th>
<th>Below</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid phosphates with potash</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Complete fertilizers</td>
<td>293</td>
<td>81</td>
</tr>
<tr>
<td>Cottonseed meals</td>
<td>200</td>
<td>7</td>
</tr>
<tr>
<td>Special Mixtures</td>
<td>444</td>
<td>100</td>
</tr>
</tbody>
</table>

Attention was called in my last annual report to the unusual number of LOW GRADE cotton seed meals on the market. While quite a number of low grade meals were found this season, the percentage is considerably less than last year, being 9.90 per cent. against 16.73 per cent. last year.

Nitrogen: Deficiencies, sources and availability.

In connection with the subject of deficiencies in nitrogen, or equivalent ammonia, the following table is interesting. It is to be noted that none of the deficient samples here given are deficient in relative commercial value:

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Samples</th>
<th>Deficient in one or more Ingredients</th>
<th>Deficient in Nitrogen only</th>
<th>Nitrogen per c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1905</td>
<td>522</td>
<td>165</td>
<td>61</td>
<td>36.96</td>
</tr>
<tr>
<td>1906</td>
<td>655</td>
<td>201</td>
<td>87</td>
<td>43.28</td>
</tr>
<tr>
<td>1907</td>
<td>743</td>
<td>153</td>
<td>81</td>
<td>52.94</td>
</tr>
<tr>
<td>1908</td>
<td>713</td>
<td>161</td>
<td>77</td>
<td>47.82</td>
</tr>
<tr>
<td>1909</td>
<td>805</td>
<td>197</td>
<td>74</td>
<td>37.56</td>
</tr>
<tr>
<td>1910</td>
<td>1188</td>
<td>235</td>
<td>79</td>
<td>33.61</td>
</tr>
<tr>
<td>1911</td>
<td>1605</td>
<td>393</td>
<td>107</td>
<td>27.22</td>
</tr>
<tr>
<td>1912</td>
<td>1689</td>
<td>380</td>
<td>71</td>
<td>18.68</td>
</tr>
<tr>
<td>1913</td>
<td>1922</td>
<td>389</td>
<td>190</td>
<td>48.84</td>
</tr>
<tr>
<td>1914</td>
<td>2537</td>
<td>534</td>
<td>257</td>
<td>48.13</td>
</tr>
<tr>
<td>1916</td>
<td>1227</td>
<td>333</td>
<td>145</td>
<td>43.54</td>
</tr>
<tr>
<td>1916</td>
<td>1598</td>
<td>378</td>
<td>130</td>
<td>34.39</td>
</tr>
<tr>
<td>1917</td>
<td>1594</td>
<td>477</td>
<td>224</td>
<td>46.96</td>
</tr>
</tbody>
</table>
This summary shows that there was quite a large increase in the number of deficiencies in nitrogen only in these samples deficient in one or more ingredients, but not deficient in commercial value, as compared with last year.

The nitrogen availability standards for the past two seasons, and which will be in force during the season 1917-1918, are as follows:

"1st. The Modified Neutral Permanganate Method of Street is still in force.

"2nd. An unmixed fertilizer material furnishing organic nitrogen must show an availability of 85 per cent. of the total organic nitrogen.

"3rd. The water-insoluble organic nitrogen in mixed fertilizers must show an availability of 75 per cent. by Street’s method, if the water-insoluble organic nitrogen amounts to one-third or more of the total nitrogen found on analysis."

All the mixed fertilizers analyzed this season, in which the watersoluble organic nitrogen amounted to one-third or more of the total nitrogen found on analysis, have been examined as to availability. Of the 240 samples examined in accordance with provision 3rd above, only thirty-eight, or 15.83 per cent. fell below the availability requirements of that section. A number of samples in which the water-insoluble organic nitrogen amounted to one-third or more of the total nitrogen found on analysis were not examined as to availability, inasmuch as they were obviously ammoniated with cotton seed meal, or blood, or other well recognized organic materials of high availability. Of those samples examined for the availability of the water-insoluble organic nitrogen this season, the percentage which fell below the availability requirements was more than twice as large as was found last year, the actual number of such samples was exactly the same, namely thirty-eight. The figures were as follows: number of samples in which the water-insoluble organic nitrogen fell below the requirements was this season 15.83 per cent, of the samples examined, or thirty-eight out of 240, while last year the percentage was 7.44, or thirty-eight out of 511.

In the table below are given the official numbers of the samples which fell below the availability requirements this season, along with the brand name of the fertilizer and the name and address of the manufacturer, and finally the percentage availability found in each case:
The result of the nitrogen availability work this season are, as was the case last year, quite satisfactory, and show that the manufacturers are using, to a very large extent, ammoniates of good quality in their mixed goods. These results also continue to justify the standards adopted by the Board or Fertilizer Control, since 91.28 per cent. of the samples met the requirement, if we take into account the 196 samples which were passed because they were ammoniated with cotton seed meal, blood and the like. Even in the cases which failed to meet the availability requirements, nearly 58 per cent. came within two to five points of the standard, giving an availability of from 70 to 73 per cent. of the water-insoluble organic nitrogen.

Farmers' Samples of Fertilizers:

In addition to the official samples of fertilizers collected by inspectors, there have been analysed this season 260 samples for individual purchasers, as provided for in Section 1540 of the Fertilizer Law.

Ashes (Wood):

The interest in potash sources still continues, as shown by the fact that we received eight samples of wood ashes this season, against eleven last year.
Limestone and Marls:
There has been a large falling off in the number of samples of these materials as compared with last year. The number of samples last year was seventeen, and this season only seven, including two samples collected by our official inspectors.

Waters:
Of the eighty-eight samples of waters analysed this season, seventy-five were sanitary analyses, and thirteen were complete mineral analyses. Fifty-seven of the sanitary analyses were made for the citizens of the State, eleven were monthly analyses of the Barracks Spring water, and seven were of the Stand-pipe water, which was added by the President of the College to the regular inspection of the College water supply last January. All of the complete analyses were made for the citizens of the State.

Ores and Minerals:
Of the ninety-seven analyses and examinations listed under these heads, or which may be properly included, fourteen were assays for gold and silver, three iron ores, two manganese ores, and the remaining seventy-eight were examinations of minerals, rocks etc. sent in by citizens from various parts of the State for identification only.

Clays and Ochers:
Ten samples of such materials were analysed this season, as compared with twenty-four samples received last season.

Miscellaneous:
The sixty-two samples classified under this head were as follows: One each: boiler scale; rock; cottonseed for oil only; coal ashes, supposed to contain a considerable quantity of potash; "kaustine," examined for the Engineering Department (Professor Lee); pigeon feed, examined for the Poultry Division (Professor Hare); rice field mud; cow manure; river mud; specimen of portion of the human body in a case of suspected poisoning. Two samples of soil. Fifty samples of beer examined for alcohol for the Chief State Constable, at the request of the Governor of the State.

Distribution of the Work:
The fertilizer analyses were made by Messrs. Robertson, Lykes, Foy, Pennell and Thornton. Mr. Lykes resigned to take effect February first. Mr. Thornton was employed as a temporary assistant from February first till June 30th. From January 17th. till the end of the fertilizer season, the samples were prepared for analysis by Mr. C. F. Sheffield, Fourth Assistant Chemist.

All of the miscellaneous work, other than fertilizers, and the one poison case, was performed by Mr. Freeman. Dr. Lipscomb analysed the specimen in the poison case.
The nitrogen availability work this season has been done by Dr. Lipscomb, assisted by Mr. Sheffield.

It gives me pleasure to be able to say, in closing this report, that all of the assistants have done faithful and efficient work throughout the year, and that apparently harmony has prevailed.

Very respectfully

R. N. Brackett,
Director & Chief Chemist.

To President W. M. Riggs.

August, 1917.
Report of State Entomologist and State Pathologist

We herewith submit the annual report of the Crop Pest Commission for the fiscal year ending June 30, 1917. The work of the past year has brought us to a crisis and the question is whether we will meet it or not meet it. The work has developed not rapidly but safely and conservatively and we have now before us the opportunity for carrying on the Crop Pest Commission work of this state so as to meet more satisfactorily the demand for which the law was created.

For convenience the report is divided according to the different sections constituting the service: First, The boll weevil quarantine and cotton seed certification. Second, Nursery inspection. Third, Citrus quarantine. Fourth, Foreign importations. Fifth, Disease outbreaks. Sixth, Insect suppression. Seventh, The problem before us.

The regulations of this commission have always been operated with the view of perfecting a system and spirit of cooperation and in this direct progress has been made.

1. BOLL WEEVIL QUARANTINE.

Maintaining the Quarantine Line. The actual weevil line is maintained by systematic inspection at established points along the Savannah River by inspectors of the boll weevil laboratory located at a convenient and effective place in that section of the State. The frequency of inspection depends on the season of the year, being almost continuous during heavy weevil migration while at other seasons of the year they are made from one to four times each month. From the points where weevils are actually found the actual boll weevil line is determined.

Safety Zone. The actual boll weevil line can be only a conscientious approximation obtained through the most diligent efforts owing to weevil activity and the inexorable factor of human error in patrolling such an extent of territory. The actual weevil line as promulgated when conservatively established can never be guaranteed as absolutely accurate and safe. An element of danger will always exist and for this reason in order to avoid undue interference with legitimate business a twenty mile zone known as safety zone is established in order to protect weevil free areas of the state against undetected weevil advances. All points in this zone are held by this Commission the same as points in weevil territory unless there is convincing proof obtained through direct investigation that any given point is weevil free and safe.
Quarantine Zone. Weevils may make a sudden advance especially during stormy weather in late summer and fall. A twenty mile safety zone under such conditions is not wide enough to guarantee protection to weevil free territory. For this reason a zone thirty miles wide is provided in advance of the safety zone and these zones are operated as follows:

No prohibited or restricted articles as defined by the regulations of this Commission are permitted to move from weevil territory into safety zone. These two areas constitute weevil territory and it would be very unlikely that sufficient evidence of security could be obtained for this Commission to grant a permit for the movement of prohibited or restricted articles from that weevil territory or safety zone into weevil free areas. Prohibited or restricted articles however, are permitted to move from the thirty mile quarantine zone provided such shipments are moved under permit obtained from this Commission. Requests for such shipments are investigated whenever it is deemed necessary and whenever it is evident that the case merits it the shipper is required to make affidavit as to origin of seed and a permit to make the shipment may then be issued.

In the prosecution of this service the officers of this Commission are being supported by the effective cooperation of the transportation agents of the state. This cooperation is of the greatest value and is indispensable. It has developed to such a state of efficiency that numerous misunderstandings arose which stimulated educational process which was most satisfactory and has greatly helped in developing the effectiveness of the service.

Large quantities of seed alleged to have been purchased in the Carolinas and billed to fill orders in this state occurred in Augusta when the weevil in his historic advance reached that section. The methods of inspection and fumigation proposed were not satisfactory to this Commission in view of the destructiveness of this pest and the quarantine regulations were not arbitrated; this prevented the seed from entering the state. In one particular instance one of the large seed-houses asked the planters to haul the seed in wagons and automobiles as there was no other method to get the seed into this State. The particular house in question had guaranteed this Commission time and again that it would under no circumstances do any thing to violate the regulations of this Commission. This request was resented by our planters and the communications forwarded to this Commission as information.

It appears that dealers and breeders in other states received the impression that the law was being operated prejudicial to seed importation. The agitation was allayed by what may be termed a test case. Consignments of cotton seed were shipped from a point in this State addressed to an Augusta Seed House. Before the shipment was removed from the depot at Augusta a request was made to have it re-
turned to points of origin alleging that the seed were ordered with the view of distributing them in South Carolina which had become impossible owing to the operations of the South Carolina quarantine laws. It is a well known fact that the present regulations have been in effect since 1912 and the Commission held that the seed were in boll weevil territory and there being no convincing proof that the seed had not been exposed, permission for returning them was refused.

Special Permits. The testing and breeding of varieties of cotton seed adaptable to certain sections under the direct supervision of a qualified specialist is an important feature in boll weevil control. The Commission therefore, made provision by which small quantities of seed may be shipped into this state, these shipments however, being so safe guarded that there was not a possible opportunity for the accidental distribution of boll weevil. In order to make such a shipment the amount is limited to one-half bushel in the container. The seed must be fumigated under the direct supervision of a qualified state official and a fumigation certificate acceptable to this Commission, attached. The seed must be securely packed upon which a special certificate is issued upon which the railroads will move the seed. The certificate is made out in complete form before it is issued and shipments must be made direct to this Commission, Clemson College, S. C., for the final inspection and certification. Such special permit is issued only upon the evidence that the consignee is a qualified cotton breeder and that he will keep the seed under his direct personal supervision. The following special permits were issued during the past year:

<table>
<thead>
<tr>
<th>SHIPPER</th>
<th>VARIETY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petway Seed Farm, Eastman, Ga.</td>
<td>Trice</td>
<td>1-3 bushel</td>
</tr>
<tr>
<td>J. E. Bridges, Bell, Tenn.</td>
<td>Council Teole</td>
<td>1 bushel</td>
</tr>
<tr>
<td>Ira W. Williams, Valdosta, Ga.</td>
<td>Council Teole</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Dixie-Afifi</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Desota</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Lewis 63</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Modella</td>
<td>1 bushel</td>
</tr>
<tr>
<td>E. F. Cauthen, Auburn, Ala.</td>
<td>Cook</td>
<td>1 bushel</td>
</tr>
<tr>
<td>E. F. Cauthen, Auburn, Ala.</td>
<td>Cleveland Big Boll</td>
<td>1 bushel</td>
</tr>
<tr>
<td>H. A. Kreis, New Orleans, La.</td>
<td>Dix-Afifi</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Dixie Improved</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Lewis 63</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Council Teole</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Dix-Afifi</td>
<td>1 bushel</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Dixie Improved</td>
<td>1 peck</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Lewis 63</td>
<td>1 peck</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>Council Teole</td>
<td>1 peck</td>
</tr>
<tr>
<td>C. A. McLendon, Atlanta, Ga.</td>
<td>DeSoto</td>
<td>1 peck</td>
</tr>
<tr>
<td>J. E. Bradburg, Athens, Ga.</td>
<td>Poulnott</td>
<td>1 bushel</td>
</tr>
<tr>
<td>A. C. Lewis, Atlanta, Ga.</td>
<td>Dixie-Afifi</td>
<td>1 bushel</td>
</tr>
<tr>
<td>Ira W. Williams, Atlanta, Ga.</td>
<td>Sea Island</td>
<td>1 bushel</td>
</tr>
<tr>
<td>Ira W. Williams, Atlanta, Ga.</td>
<td>Sea Island</td>
<td>1 bushel</td>
</tr>
<tr>
<td>Ira W. Williams, Atlanta, Ga.</td>
<td>Council Teole</td>
<td>1 bushel</td>
</tr>
<tr>
<td>Ira W. Williams, Atlanta, Ga.</td>
<td>Lewis 63</td>
<td>1 bushel</td>
</tr>
</tbody>
</table>
Cotton Seed Certificate: Cotton seed for planting originating in weevil-free territory either in South Carolina or in other states or countries are subject to the same requirements as heretofore except that all permit tags are numbered and that the destination of all shipments as well as copies of the invoices thereof are accounted for to this Commission.

Violations. The cases of violation were very rare owing to the splendid cooperation by the transportation companies. It was necessary to confiscate and destroy only two shipments, one of which consisted of corn shucks, the latter having been moved with other material from weevil territory to a point in eastern South Carolina.

Shipments Originating In Quarantine Zone: This phase of the service has been of special importance to the oil mills whose excellent cooperation has been most satisfactory in the operation of this work. The various mills reported contemplated shipments to this Commission and whenever it was deemed necessary a direct investigation was made and whenever the evidence was conclusive that the seed in question were safe a special permit was issued. Whenever this Commission regarded a shipment dangerous after careful investigation its decision was at no time questioned. Doubtful cases can at no time be regarded other than dangerous cases. The following is a list of shipments authorized by this Commission from quarantine zone into free territory. These special permits are good only for the particular shipment for which they were issued and when such shipment is completed the permit is void:

Paul Sanders, Ritter, S. C., to Hartsville Oil Mill.
Addison Mills, Edgefield, S. C., to Kershaw, S. C.
G. M. Moye Dickinson, Bamberg, S. C., to Kershaw Oil Mill.
M. A. Taylor, Edgefield, S. C., to Hartsville Oil Mill.
Saluda Wholesale & Warehouse, Co., to Kershaw Oil Mill.
F. Mason Crumb, Orangeburg, S. C., to Various points.

Forms of Tags Employed: It is very important that this Commission should have a detailed knowledge of all shipments requiring permits and for this reason special forms of tags have been adopted. All forms of tags issued by this Commission are of a bright red color number eight size and well made. Each tag carries instructions to transportation agents and to shippers and this is with the view of bringing continually to the attention of the transportation agents and others the requirements of the law and it is confidently expected to speedily reduce the violations to a minimum. All tags are consecutively numbered when printed by means of a typographic numbering machine with which the press is provided. It is required that in case of all shipments requiring tags a duplicate invoice (prices
not required) be filed with this Commission at the close of each day's business together with a record of the numbers on the tags also all mutilated tags. This enables the officers of the Commission to check any shipment desired and to discover any discrepancy that may exist. The following are the forms of tags employed for this branch of this service: These tags are good only for the particular shipments for which they are issued.

SOUTH CAROLINA
STATE CROP PEST COMMISSION
CLEMSON COLLEGE, S. C.

NO.________________________

Issued to ________________________________________ void after ________________

Permission is hereby given to the above named party or parties to ship ____________________________ from ________________ to ________________ when this permit is accompanied by the official fumigation certificate of a duly authorized state or government official.

By order of the South Carolina State Crop Pest Commission, Clemson College, S. C.

H. W. Barre, State Pathologist. A. F. Conradi, State Entomologist

SOUTH CAROLINA
STATE CROP PEST COMMISSION,
CLEMSON COLLEGE, S. C.

NO.________________________

Issued to ________________________________________ and permits the shipment and movement of cotton seed originating within weevil FREE territory in South Carolina.

TO SHIPPER. This permit is issued pursuant to the filing with and acceptance by this Commission of an affidavit. Cotton seed, not listed and described in said affidavit when shipped or moved within the State of South Carolina is in violation of law.

By order of the South Carolina State Crop Pest Commission, Clemson College, S. C.

H. W. Barre, State Pathologist. A. F. Conradi, State Entomologist

2. Nursery Inspection.

**Inter-state Nurseries.** The following is a list of nurseries and premises in the state of South Carolina inspected by this Commission and to whom permits were issued:

<table>
<thead>
<tr>
<th>Nursery/Co.</th>
<th>Tags</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson Floral Co., Anderson, S. C.</td>
<td>100</td>
</tr>
<tr>
<td>Jude Robinson, Rowesville, S. C.</td>
<td>100</td>
</tr>
<tr>
<td>M. O. Dantzler, Orangeburg, S. C.</td>
<td>100</td>
</tr>
<tr>
<td>George Baldwin, Columbia, S. C.</td>
<td>1000</td>
</tr>
<tr>
<td>Greenville Nursery Co., Greenville, S. C.</td>
<td>1000</td>
</tr>
</tbody>
</table>
**Inter-state Nursery Service:** The method of issuing permits is the same as used heretofore except that a new form of tag is provided with provisions to enable this Commission to make terminal inspection whenever it is deemed necessary. The following is a list of nurseries and premises to whom inter-state permits were issued during the past year:

<table>
<thead>
<tr>
<th>Nursery Co.</th>
<th>Tags</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. &amp; M. Kellog Co., Three Rivers, Mich</td>
<td>100</td>
</tr>
<tr>
<td>J. E. Bass &amp; Son, Lumberton, Miss.</td>
<td>100</td>
</tr>
<tr>
<td>F. E. Schifferli Nurseries, Fredonia, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>First National Nursery, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Van Duzen Nurseries, Geneva, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>H. S. Taylor, Monroe, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Kelly Brothers Wholesale Nursery, Dansville, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Jackson &amp; Perkin, Newark, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>R. B. Griffith, Fredonia, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Ellwanger &amp; Barry, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>W. &amp; F. Smith Co., Geneva, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Jessen Nursery Co., Fredonia, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Glen Brothers, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>T. S. Hubbard Co., Fredonia, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Perry Nursery Co., Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Peter Henderson &amp; Co., New York City</td>
<td>100</td>
</tr>
<tr>
<td>West Hill Nursery, Fredonia, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Greens Nursery, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Woodlawn Nurseries, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Allen L. Wood, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>Gilbert Costick, Rochester, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>John Lewis Childs, Floral Park, N. Y.</td>
<td>100</td>
</tr>
<tr>
<td>New Jersey Nursery, Millburn, N. J.</td>
<td>100</td>
</tr>
<tr>
<td>Dreer Nurseries, Riverton, N. J.</td>
<td>500</td>
</tr>
<tr>
<td>Arthur J. Collins, Mooretown, N. J.</td>
<td>100</td>
</tr>
<tr>
<td>German Nurseries, Beatrice, Nebraska.</td>
<td>100</td>
</tr>
<tr>
<td>D. Hill Nursery Co., Dundee, Ill.</td>
<td>100</td>
</tr>
<tr>
<td>Valdesian Nursery, Bostic, N. C.</td>
<td>100</td>
</tr>
<tr>
<td>Biltmore Nursery, Biltmore, N. C.</td>
<td>100</td>
</tr>
<tr>
<td>Thromburg Nursery Co., Newton, N. C.</td>
<td>100</td>
</tr>
<tr>
<td>North State Nursery Co., Julian, N. C.</td>
<td>100</td>
</tr>
<tr>
<td>Killian Nursery, Newton, N. C.</td>
<td>200</td>
</tr>
<tr>
<td>J. Van Lindley Nursery Co., Pomona, N. C.</td>
<td>700</td>
</tr>
<tr>
<td>Catawba County Nursery, Newton, N. C.</td>
<td>1000</td>
</tr>
<tr>
<td>Piedmont Nursery, Hartshorn, N. C.</td>
<td>100</td>
</tr>
<tr>
<td>Greensboro Nursery, Greensboro, N. C.</td>
<td>700</td>
</tr>
<tr>
<td>Monticello Nurseries, Monticello, Fla.</td>
<td>200</td>
</tr>
<tr>
<td>Summit Nurseries, Monticello, Fla.</td>
<td>200</td>
</tr>
<tr>
<td>Glen St. Mary Nurseries, Glen St. Mary, Fla.</td>
<td>500</td>
</tr>
<tr>
<td>Interstate Nurseries, Macclenny, Fla.</td>
<td>1000</td>
</tr>
<tr>
<td>Nursery Name</td>
<td>Location</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>C. M. Griffin &amp; Co., McClenny, Fla.</td>
<td></td>
</tr>
<tr>
<td>Florida Nurseries, Monticello, Fla.</td>
<td></td>
</tr>
<tr>
<td>Georgia Nursery Co., Concord, Ga.</td>
<td></td>
</tr>
<tr>
<td>H. G. Hastings Co., Atlanta, Ga.</td>
<td></td>
</tr>
<tr>
<td>Hartwell Nurseries, Hartwell, Ga.</td>
<td></td>
</tr>
<tr>
<td>C. A. Dahl Floral Co., Atlanta, Ga.</td>
<td></td>
</tr>
<tr>
<td>H. C. Cannon, Cairo, Ga.</td>
<td></td>
</tr>
<tr>
<td>S. W. Peak, Hartwell, Ga.</td>
<td></td>
</tr>
<tr>
<td>Dixie Nursery, Valdosta, Ga.</td>
<td></td>
</tr>
<tr>
<td>Southern Nut Tree Nursery, Thomasville, Ga.</td>
<td></td>
</tr>
<tr>
<td>Stafford &amp; Howard, Barneswell, Ga.</td>
<td></td>
</tr>
<tr>
<td>D. O. Lott, Waycross, Ga.</td>
<td></td>
</tr>
<tr>
<td>Ashford Park Nurseries, Atlanta, Ga.</td>
<td></td>
</tr>
<tr>
<td>G. H. Miller &amp; Son, Rome, Ga.</td>
<td></td>
</tr>
<tr>
<td>J. B. Wright, Cairo, Ga.</td>
<td></td>
</tr>
<tr>
<td>Hogansville Nursery, Hogansville, Ga.</td>
<td></td>
</tr>
<tr>
<td>A. C. Snedeker, Blackshear, Ga.</td>
<td></td>
</tr>
<tr>
<td>Magnolia Nursery, Cairo, Ga.</td>
<td></td>
</tr>
<tr>
<td>Parrott Nursery, Parrott, Ga.</td>
<td></td>
</tr>
<tr>
<td>Rood Pecan Grooves, Albany, Ga.</td>
<td></td>
</tr>
<tr>
<td>G. M. Bacon, Pecan Co., Dewitt, Ga.</td>
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</tr>
<tr>
<td>G. H. Tomilson, Putney, Ga.</td>
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<tr>
<td>W. H. Cowan, Baconton, Ga.</td>
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<tr>
<td>P. J. Buckingham Co., Augusta, Ga.</td>
<td></td>
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<tr>
<td>Concord Nursery, Concord, Ga.</td>
<td></td>
</tr>
<tr>
<td>Bill Dad Nursery, Smithville, Tenn.</td>
<td></td>
</tr>
<tr>
<td>Mountainview Nursery Co. Smithville Tenn.</td>
<td></td>
</tr>
<tr>
<td>E. M. Shahan, Winchester, Tenn.</td>
<td></td>
</tr>
<tr>
<td>Wharton Springs Nursery Co., Smithville Tenn.</td>
<td></td>
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<tr>
<td>Commercial Nursery Co., Winchester, Tenn.</td>
<td></td>
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<tr>
<td>Shadow Nursery Co., Winchester, Tenn.</td>
<td></td>
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<tr>
<td>Lassiter Nursery Co., Smithville, Tenn.</td>
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<tr>
<td>Tennessee Nursery Co., Cleavland, Tenn.</td>
<td></td>
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<tr>
<td>Southern Nursery Co., Winchester, Tenn.</td>
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<tr>
<td>Globe Nurseries, Bristol, Tenn.</td>
<td></td>
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<tr>
<td>Knoxville Nursery Co., Knoxville, Tenn.</td>
<td></td>
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<tr>
<td>Forest Nursery Co., McMinnville, Tenn.</td>
<td></td>
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<tr>
<td>Winchester Nursery Co., Winchester, Tenn.</td>
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<tr>
<td>Cedar Hill Nursery &amp; Orchard Co., Winchester Tenn.</td>
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<tr>
<td>Marble City Nursery, Knoxville, Tenn.</td>
<td></td>
</tr>
<tr>
<td>Thomas Meeham &amp; Son, Germantown, Pa.</td>
<td></td>
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<tr>
<td>Audorra Nurseries, Chestnut Hill Pa.</td>
<td></td>
</tr>
<tr>
<td>Thomas B. Meeham Co., Dresher, Pa.</td>
<td></td>
</tr>
<tr>
<td>Glenwood Nurseries, Morrisville, Pa.</td>
<td></td>
</tr>
<tr>
<td>W. &amp; H. Moon Co., Morrisville, Pa.</td>
<td></td>
</tr>
<tr>
<td>J. G. Harrison &amp; Sons, Berlin, Md.</td>
<td></td>
</tr>
<tr>
<td>Winchester Nursery Co., Winchester, Md.</td>
<td></td>
</tr>
</tbody>
</table>
Franklin Davis Nursery Co., Mullikin, Md. 100
Stark Brothers Nursery & Orchard Co., Louisiana, Mo. 300
Old Dominion Nurseries, Richmond, Va. 200
Starrs & Harrison Co., Painesville, Ohio. 100
Scarg Nurseries, New Carlisle, Ohio. 100
H. C. Allen, Geneva, Ohio. 100
Winfield Nursery Co., Winfield, Kan. 100

PERMITS ISSUED FOR THE TRANSPORTATION OF COTTON SEED
FOR PLANTING.

L. S. Wolfe, Orangeburg, S. C. 150
W. H. Hite, Augusta, Ga. 100
A. L. Easterling, Bennettsville, S. C. 200
W. H. Kirkwood, Bennettsville, S. C. 900
B. F. Holley, Alken, S. C. 150
Pedigreed Seed Farms, Hartsville, S. C. (Printed their own tags) 8000
J. L. Seabrook, Edisto Island, S. C. 100
W. C. Coker, Society Hill, S. C. 500
E. W. Evans, Bennettsville, S. C. 1000
Wake County Seed Co., Raleigh, N. C. 4000
W. H. Mixon Seed Co., Charleston, S. C. (Printed their own tags) 6000

Owing to the closer cooperation of railroads and citizens in general a number of irregularities in shipping nurseries stock were discovered which suggest a modification of the methods heretofore employed in the issuing of permits both for intra and inter-state shipments. These irregularities are due mainly to the practices of unscrupulous and irresponsible growers or dealers. This is a continual menace and very unsatisfactory and injurious to the large majority of nurserymen who ship out only first class and clean stock. To make a unscrupulous shipment under a bona fide official certificate is easy and no way aside from terminal inspection could be suggested to counteract this procedure. It is believed, however, that the system adopted by the Florida State Board is the most effective form of certification yet devised. This method, in principle at least, has been adopted by this Commission and makes it possible to check any shipment desired. The officers of this Commission who have been its officers for a long series of years have through long experience obtained quite accurate information as to the possible or probable occurrence of irregular and unscrupulous shipments, and these shippers being aware that their consignment move with a complete knowledge by this Commission and a terminal inspection, will have their opportunity to make South Carolina a dumping ground reduced to a minimum. The methods now
in use is explained in the following brief set of rules and regulations adopted by this Commission:

**Citrus Quarantine:** During the past year this Commission was in active cooperation in citrus eradication work with the Bureau of Plant Industry. In order to render this cooperation as effective as possible and to protect this State against the invasion of citrus canker an order was issued by this Commission prohibiting the shipment of citrus plants or parts of plants into the State of South Carolina except under a special citrus permit. Two cases of citrus canker were discovered and eradicated. 2,320 inspections were made by the Federal inspector and the information obtained is of the greatest value to the service. Duplicate invoices were sent to this office of all shipments moved under special permits. Special citrus permits were issued to the following:

### Variety—No.

From Glen St. Mary Nurseries Co., Glen St. Mary, Fla.—

To M. Rutledge Rivers, Charleston, S. C. —— Satsuma —— 1
To Dr. F. C. Wilson, Sheldon, S. C. —— Satsuma——
To Carolina Floral Co., Charleston, S. C. —— Satsuma——
To Mrs. W. A. Calvert, Abbeville, S. C. —— Citrus Hybrids——
To David Doar, Santee, S. C. ——— Citrus Hybrids——
To L. S. Welling, Darlington, S. C. ——— Citrus Hybrids——
To L. S. Welling, Darlington, S. C. ——— Citrus Hybrids—— 4
To W. J. Britton, Barnwell, S. C. ——— Citrus Hybrids—— 3
To H. C. Folk, Bamberg, S. C. ——— Citrus Hybrids—— 8
To J. S. Baxter, Garnett, S. C. ——— Satsumas —— 10
To E. T. H. Shaffer, Walterboro, S. C. ——— Citrus Hybrids—— 100

**Foreign Importation:** The activities in shipments from foreign countries have been normal notwithstanding the conditions brought about by the European war. All consignments from foreign points were inspected at destination in this State. The following is a list of foreign importations:

From Ottalander Hooffman, Boskoop, Holland——

375 Astilbes; 50 Dentyea; 62 Rhodos; 12 Azaleas; 12 Lilac; and 170 Hydrangea. To Carolina Floral Co., Charleston, S. C.

From Bier & Ankersmit, Mille-Lex, Belgium——

48 Azaleas and 13 Arane. To Eau Claire Greenhouses, Columbia.

From C. J. Bier, Holland——

150 Azaleas. To Mrs. J. M. Eison, Columbia, S. C.

From A. Van Schoote, Ghent, Belgium——

50 Azaleas. To DeWitt House, Palmetto Nurseries, Florence, S. C.

From Arthur de Meyer, Mont St. Amand-Ghent, Belgium——

850 Azalea Indica. To F. L. & F. J. Aichel, Charleston, S. C.

From Kallen & Lunneman, Boskoop, Holland——

24 Azaleas for forcing. To Miss Annie Addison, Greenville, S. C.
From Vincent Lebreton's Nursery, La Pyramide, France—
1400 Coniferous evergreens (other than pines) To Greenville
Nursery Co., Greenville, S. C.

Disease Outbreaks: During the year numerous outbreaks of de-
structive plant diseases have come to our attention and all of these
have been investigated.

Cotton anthracnose was especially destructive in some sections
where farmers used seed badly infected with the disease. The close
cooporation which the transportation agencies are giving us has pre-
vented, to a large measure, the shipment of diseased seed. This has
aided materially in reducing the amount of damage caused by the
disease. With the adoption of the new regulations which have been
submitted we shall be able to keep a still closer tab on the shipment
of seed for planting purposes and still further reduce the loss caused
by this destructive disease.

During the past season we have observed cases where oat smut and
black rot of cabbage have been brought in in seed of these crops.
Both of these diseases were more widespread in the State than usual
and caused serious loss in many sections. By applying our new regu-
lations relative to tags to shipments of all seed for planting purposes
we hope to reduce the losses caused by these diseases.

During the past two years we have found a new disease on clover
and alfalfa in Greenville County, and have devoted some time to a
study of the disease. The disease is caused by Sclerotinia apparently
S. libertiana, the same species that causes lettuce drop. The disease
causes a wilting of the plants and frequently destroys the clover and
alfalfa in large spots in the fields. Information has been solicited
through the county agents but the disease has not been reported ex-
cept in Greenville County.

Another destructive disease that has come to our attention is a new
disease of corn which we found several years ago in Jasper County
and have since observed in every section of the state. This disease
which looks something like the common corn rust, is caused by
Physoderma zeamays. A similar disease is known on corn in China
and the Philippine Islands and this country is now quarantined
against corn from these places on account of this disease. Since it
has developed here we have taken the matter up with the Office of
Cereal Investigations of the Bureau of Plant Industry and Mr. W. H.
Tisdale has been employed by the Department of Agriculture to de-
vote his entire time to a study of the disease. Mr. Tisdale will have
his headquarters here at the college while he is working on this
disease and the Pathologist of the Commission will have opportunity
to keep in close touch with the progress of the investigation.

Insect Suppressions: Insect outbreaks during the past year were
below the average due to the unusual weather conditions prevailing
during the growing season. Among the field crop insects the Cow Pea Cuculio attracted much attention in May, making the replanting of cotton necessary in a few instances. This insect prefers cow peas and is rarely injurious to cotton plants where volunteer cow pea plants are present.

As predicted in our last report cut worm damage was severe but the outbreak became irregular and the most severe cases were belated. This insect normally begins to pupate about May 17th. The pests were reported in tremendous numbers in certain parts of Anderson County in June. During the investigation of these reports in one instance we found two hundred and twenty-two cut worms under one stalk of cotton. They had migrated from an alfalfa field. No control measures were necessary because owing to the conditions of the worms as well as the advanced condition of the crop. During the past season the Bill Bug injury assumed a conspicuous role. There are three species on record so far. The black bill bug is quite well understood having been investigated by this institution in the Pee Dee section. The species predominating however, in the coastal sections are not understood owing to our inability to give the time to the coastal entomology which the subject warrants.

Among the truck crop insects the Mole Cricket attracts particular attention. This insect has developed into a grave pest in Charleston County and occurs at other points along the coast. The little black flea beetle was unusually destructive before the summer rains set in attacking both garden crops and field crops. Two cases of what we believe to be cabbage maggot have been reported to us from the southern part of the state.

Among the fruit insects the citrus white fly has received the principle attention during the past year not only as a citrus pest but owing to its injuries to other plants. The peach bark beetle was received into this office for identification for the first time during the past winter. This will not add greatly to the difficulty of the office because the method employed against the fruit bark beetle is equally effective against this pest.

The work with the cottony cushion scale as recorded in our last annual report was continued. Seven colonies of the Australian Lady Bird Beetle were introduced in the infested areas in and about Charleston. The work of these beetles was so thorough that they completely controlled this pest. We have at present no evidence that the lady bird beetle has passed the winter and would expect that none of them survived owing to the cold wave. However, we have the opportunity to obtain this material from the State Plant Board of Florida who do not only have the best opportunity to keep records of where colonies occur in the State but who also have provisions for rearing this species. This Commission is under obligation to Commissioner Newell and Dr. Berger of the Florida State Plant Board.
for their many courtesies shown and their efforts made to obtain this material for use in Charleston.

It was impossible during the past year to carry out our plans in regard to the Argentine ant referred to in our previous report as a recent introduction but provisions for the present at least, have been provided by which effective work can be done against this pest.

The Problem Before Us: The policy of this Commission since organization has been one of conservative progressiveness. Every effort has been made to develop the work in an educational way in order to obtain cooperation and the success so far obtained is very satisfactory. The perliminary organization of the work has been completed and we are now prepared to undertake the prosecution of the service in a manner consistent with its importance. The approach of the boll weevil has greatly stirred our citizens and the work of this Commission is looked upon with a greater expectancy than ever before. The boll weevil line heretofore foreign to South Carolina has now crossed the Savannah river which places this Commission on the “firing line.” That quarantine properly executed is of great value cannot be doubted. Our regulations are adequate and it behooves this Commission to see to it that these are effectively enforced. Slack boll weevil and nursery quarantine enforcement is an evil farce and an improitable expenditure of funds. South Carolina is now responsible for advancing to a place of dignity in protecting itself. The boll weevil situation has aroused our citizens to a better appreciation of the aims of this Commission both with regard to the boll weevil work and the nursery quarantine. We have arrived at a point when the entire situation must be adjusted in order to eliminate irregularities that have given one party the advantage of another. The time has arrived when our regulations can and should be enforced in a manner that will command the respect of our people as well as those of other states and foreign countries. We can not afford to be a dumping ground for refuse that can not be thrown into other states where laws and effective machinery for their enforcement exist.

At present we cannot foretell to what extent the boll weevil situation will develop in South Carolina for the coming year but we have every reason to suspect that the weevils will at least make average progress. The appointment of an assistant in charge of boll weevil work should be continued with sufficient operating fund to enforce the quarantine.

At present the Executive work of this Commission has developed to large proportions and this will increase as the work grows and has become fully adjusted. There is an absolutely imperative need of some assistance in the Entomologist’s office where the executive machinery of the Commission is operated. There is no similar tribunal in any other of our states that is operated with greater economy than the offices of this Commission and it is requested that this
emergency be met by the provision of funds to the amount of $45 per month to manage the details of the regulatory work in order to insure a successful continuation of the work.

Respectfully submitted

A. F. CONRADI,
State Entomologist

H. W. BARRE,
State Pathologist

To President W. M. Riggs,
Aug.1, 1917
I have the honor to submit herewith my report for the period beginning July 1, 1916 and ending June 30, 1917.

Black-leg:
Outbreaks of this disease have been reported from ten counties. This office has prepared for use and shipped to citizens of this state ten thousand doses of Black-leg vaccine.

Glanders:
This office has investigated ten cases reported by citizens to be glanders but on investigation we found these animals suffering from chronic nasal catarrh and influenza. It is gratifying to report that this disease has not made its appearance in this state in the past year.

Tuberculosis:
During the past year this office has tuberculin tested two thousand head of cattle, twenty-five of which reacted and were condemned and destroyed in accordance with the law.

Hog Cholera:
This disease is prevalent throughout the state. Veterinarians of this office have investigated twenty outbreaks of Hog Cholera and in each case administered the serum treatment to all exposed animals.

This office has furnished farmers of the state with 545,000 mils of anti-hog cholera serum at cost. Much credit is due Professor W. W. Long and his agents for the valuable assistance rendered this office in fighting this disease.

I have answered not less than two hundred letters received from farmers in regard to this disease. Crossed to Savannah River which places this Commission on the "firing line.

Forage Poisoning:
This office has investigated eighteen outbreaks of this disease during this year and in every case where the instructions of the veterinarian were carried out there was no further loss.

Hemorrhagic Septicemia:
Veterinarians of this office have investigated twelve outbreaks of this disease and in each case succeeded in preventing further spread of the disease.

Contagious Abortion:
Two cases of abortion were reported to this office and on investigation
the veterinarian found it to be contagious abortion. The veterinarian's diagnosis was confirmed by the blood test. Preventive treatment was advised in each case.

Rabies:
Veterinarians of this office investigated seven outbreaks of this disease. All exposed animals were either placed in quarantine or destroyed. In each case the anti-rabies vaccine was recommended for all exposed animals.

Stomach Worm Disease:
Veterinarians of this office investigated during the year ten outbreaks of this disease. Preventive treatment was advised in each case.

Vesicular Stomatitis:
This office has investigated three outbreaks of this disease and in each case the diseased animals were placed in quarantine and treatment prescribed.

Miscellaneous:
This office received during the year fifteen reports of outbreaks of contagious diseases but on investigation they proved to be non-contagious diseases.

Importance of Live Stock:
This office has received during the year health certificates covering the shipment into this state of 3,640 head of horses, 10,920 head of mules, 1,091 head of cattle and 947 head of hogs.

Respectfully submitted,

R. O. FEELEY,
State Veterinarian.

To President W. M. Riggs
Aug. 1, 1917.
Report of Instructor in Charge of Tick Eradication

Work in South Carolina

I have the honor of submitting herewith a report of Tick Eradication, conducted cooperatively between Clemson Agricultural College and the Bureau of Animal Industry, United States Department of Agriculture, in the State of South Carolina, from January 1, 1917, to October 31, 1917, inclusive:

Territory Worked:

Work was conducted in twenty-two counties and a portion of one county, embracing a total area of 17,567 square miles.

Classes of Work:

Our "Preliminary Work" having been completed last year and establishing the work this year in all counties where cattle fever ticks were present, our work was of only two classes, viz: "Systematic Work" and "Final Work."

Systematic Work:

Systematic work was conducted in twelve counties, viz: Beaufort, Berkeley, Charleston, Clarendon, Colleton, Dorchester, Georgetown, Hampton, Horry, Jasper, Orangeburg and Williamsburg, embracing an area of 10,587 square miles.

In two of the above counties, viz: Clarendon and Orangeburg, and a portion of Charleston, Hampton and Williamsburg the Stock Law is in force, i.e., the cattle are kept under fence during the crop growing seasons. In these our work consisted of a farm to farm inspection of all cattle by our cattle inspectors, all tick-infested and exposed cattle were located, placed under quarantine and instructions given the cattle owners how to free their cattle and premises of ticks. Regular inspections were maintained on the quarantined premises, and the cattle thereon were properly disinfected under the supervision of our cattle inspectors. This method obtained until the cattle and premises were freed of ticks. As a result the counties of Clarendon and Orangeburg were released from State and Federal quarantine in March 1917. These two counties embrace an area of 1,848 square miles. The counties of Charleston, Hampton and Williamsburg are in condition for release but owing to the free range sections of these counties being adjacent to free range counties in which the work was not established until this year, we deem it advisable to hold these three counties under quarantine next year.
"Final Work":

Final work was conducted in ten counties and a portion of one county, viz: Aiken, Bamberg, Calhoun, Chesterfield, Edgefield, Fairfield, Florence (portion), Kershaw, Lancaster, Lexington and Richland, embracing an area of 6,980 square miles.

This class of work is practically completed at this date in the above counties. On March 1, 1917, the counties of Clarendon and Orangeburg were released from State and Federal quarantine. Final work was conducted in these two counties from that date and at this time it is practically completed.

By "Final Work" is meant work in these counties that have been released from State and Federal quarantine, in which a few premises remain under local quarantine. The cattle on such premises are disinfected every fourteen days under the supervision of the cattle inspectors for a sufficient time to completely eradicate ticks from the cattle and premises.

Summary of Results:

The present system of Cooperative Tick Eradication was inaugurated between Clemson Agricultural College and the Bureau of Animal Industry, U. S. Department of Agriculture, April, 1914. Prior to that time fourteen counties with an area of 8,615 square miles had been released from State and Federal quarantine, this left thirty-one counties with an area of 21,880 square miles under quarantine. Since April, 1914, twenty-one counties with an area of 13,141 square miles have been released, leaving ten counties with an area of 8,739 square miles still under quarantine; "Systematic Work" was conducted in these counties this year with satisfactory results.

The cattle owners and citizens as a whole are realizing as never before the necessity for eradicating cattle ticks and the great importance our work plays toward the establishment of profitable livestock industry and a consequent improvement of general farming conditions.

Prospects:

The major portion of our work this year was confined to the coastal plains counties in which free range of cattle prevails to a greater or less extent.

In all of these counties the cattle range in vast swamps and are very wild. This makes it very difficult to dip all of them regularly. The greater per cent, however, were dipped regularly and the infestation has been reduced to the minimum. Our "Final Work" being practically completed this year will enable us to concentrate our force and efforts next year in the ten counties that still remain under quarantine.

The greatly improved condition observed in the cattle that were dipped regularly this year is such a marked demonstration of the
beneficial results of Tick Eradication that those who were skeptical and opposed us are now according us greater support. This sentiment growing in our favor and the fact that we can conduct a closer supervision of the regular dipping of the cattle next year, we expect to obtain greater cooperation than ever before. As a result we predict that all counties now under quarantine will be in condition for State and Federal release at the close of our 1918 work.

**U. S. Bureau of Animal Industry Expenditures:**

<table>
<thead>
<tr>
<th>Month</th>
<th>Salaries</th>
<th>Incidentally</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>$3,829.97</td>
<td>$751.12</td>
<td>$4,581.09</td>
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<td>February</td>
<td>4,100.01</td>
<td>434.11</td>
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<td>March</td>
<td>4,130.02</td>
<td>377.68</td>
<td>4,507.70</td>
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<tr>
<td>April</td>
<td>5,272.51</td>
<td>330.20</td>
<td>5,602.71</td>
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<tr>
<td>May</td>
<td>5,275.85</td>
<td>417.36</td>
<td>5,693.21</td>
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<tr>
<td>June</td>
<td>5,375.85</td>
<td>330.63</td>
<td>5,706.48</td>
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<tr>
<td>July</td>
<td>6,522.47</td>
<td>387.35</td>
<td>6,909.82</td>
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<tr>
<td>August</td>
<td>6,611.83</td>
<td>335.65</td>
<td>6,947.48</td>
</tr>
<tr>
<td>September</td>
<td>5,930.95</td>
<td>399.19</td>
<td>6,330.14</td>
</tr>
<tr>
<td>October</td>
<td>5,911.84</td>
<td>385.50</td>
<td>6,297.34</td>
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</table>

**Totals** $52,961.30 $4,148.79 $57,110.09

**Salaries:**

Expenditures under this heading include salaries of Inspector in Charge, supervising veterinarians, a clerk and cattle inspectors.

**Incidentals:**

Expenditures under this heading include traveling expenses of Inspector in Charge, supervising veterinarians and maintenance of office in Columbia, South Carolina.

**Number of U. S. Bureau Men Employed and Designation.**

<table>
<thead>
<tr>
<th>Month</th>
<th>Veterinarians</th>
<th>Cattle Inspectors</th>
<th>Clerk</th>
<th>Total</th>
</tr>
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<td>21</td>
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<td>July</td>
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<td>47</td>
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<td>September</td>
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<td>October</td>
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State Expenditures:

<table>
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<th>Month</th>
<th>Salaries</th>
<th>Incidentals</th>
<th>Total</th>
</tr>
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<tr>
<td>March</td>
<td>$350.00</td>
<td>$15.80</td>
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<td>June</td>
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<tr>
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<td>4,554.51</td>
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<tr>
<td>Totals</td>
<td>$18,930.45</td>
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</table>

Salaries:

Expenditures under this heading include salaries of Inspector in Charge, a clerk and cattle inspectors.

Incidentals:

Expenditure under this heading includes chemicals (for preparing arsenical solution to disinfect cattle), utensils and containers for same, printing regulations, quarantine and permit books, etc., also traveling expenses of Inspector in Charge.

Number of State Men Employed and Designation:

<table>
<thead>
<tr>
<th>Month</th>
<th>Veterinarians.</th>
<th>Cattle Inspectors.</th>
<th>Clerk.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>March</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>April</td>
<td>1</td>
<td>12</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>May</td>
<td>1</td>
<td>20</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>June</td>
<td>1</td>
<td>22</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>July</td>
<td>1</td>
<td>25</td>
<td>1</td>
<td>27</td>
</tr>
<tr>
<td>August</td>
<td>1</td>
<td>27</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>September</td>
<td>1</td>
<td>38</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>October</td>
<td>1</td>
<td>39</td>
<td>1</td>
<td>41</td>
</tr>
</tbody>
</table>

The Inspector in Charge is employed jointly by the State of South Carolina and the U. S. Bureau of Animal Industry, each paying one-half his salary and alternate monthly traveling expenses.
Force in Tick Eradication Work.

(Paid jointly by State of South Carolina and U. S. Dept. of Agri.)

<table>
<thead>
<tr>
<th>Position and Name</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inspector in Charge—W. K. Lewis</td>
<td>$2,750.00</td>
</tr>
<tr>
<td>2. Veterinary Inspector—W. L. Cohenour</td>
<td>1,800.00</td>
</tr>
<tr>
<td>3. Veterinary Inspector—C. Hedley</td>
<td>1,800.00</td>
</tr>
<tr>
<td>4. Veterinary Inspector—H. B. Hood</td>
<td>1,800.00</td>
</tr>
<tr>
<td>5. Veterinary Inspector—F. S. Hope</td>
<td>1,800.00</td>
</tr>
<tr>
<td>6. Veterinary Inspector—C. A. Krause</td>
<td>1,740.00</td>
</tr>
<tr>
<td>7. Veterinary Inspector—Z. C. Boyd</td>
<td>1,400.00</td>
</tr>
<tr>
<td>8. Veterinary Inspector—H. S. Brundage</td>
<td>1,400.00</td>
</tr>
<tr>
<td>9. Veterinary Inspector—B. H. Newell</td>
<td>1,400.00</td>
</tr>
<tr>
<td>10. Veterinary Inspector—W. S. Trigg</td>
<td>1,400.00</td>
</tr>
<tr>
<td>11. Clerk—George Smith</td>
<td>1,200.00</td>
</tr>
<tr>
<td>12. Clerk—R. K. Donly</td>
<td>960.00</td>
</tr>
</tbody>
</table>


Very Respectfully

W. K. LEWIS,
Inspector in Charge.

To President W. M. Riggs,
Nov. 1917.
CATTLE QUARANTINE
STATUS
EFFECTIVE MARCH 1, 1917