1942

Annual Report of the Clemson Board of Trustees, 1942

Clemson University, Board of Trustees

Follow this and additional works at: https://tigerprints.clemson.edu/trustees_reports

Materials in this collection may be protected by copyright law (Title 17, U.S. code). Use of these materials beyond the exceptions provided for in the Fair Use and Educational Use clauses of the U.S. Copyright Law may violate federal law.

For additional rights information, please contact Kirstin O'Keefe (kokeefe [at] clemson [dot] edu)

For additional information about the collections, please contact the Special Collections and Archives by phone at 864.656.3031 or via email at cuscl [at] clemson [dot] edu

Recommended Citation
Board of Trustees, Clemson University, "Annual Report of the Clemson Board of Trustees, 1942" (1942). Annual Reports. 59.
https://tigerprints.clemson.edu/trustees_reports/59

This Article is brought to you for free and open access by the Board of Trustees at TigerPrints. It has been accepted for inclusion in Annual Reports by an authorized administrator of TigerPrints. For more information, please contact kokeefe@clemson.edu.
FIFTY-THIRD ANNUAL REPORT

of the

BOARD OF TRUSTEES

of

The Clemson Agricultural College

to the

General Assembly of South Carolina

1942

The Clemson Agricultural College

RECORD

Published quarterly by the Clemson Agricultural College, Clemson, South Carolina. Entered as second class matter April 25, 1905, at the Post Office at Clemson, South Carolina, under the Act of July 16, 1894, now superseded by the Act of August 24, 1912.
<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LETTER OF TRANSMITTAL</td>
<td>3</td>
</tr>
<tr>
<td>ENROLLMENT FOR 1942-1943</td>
<td>4</td>
</tr>
<tr>
<td>REPORT OF THE PRESIDENT</td>
<td>5</td>
</tr>
<tr>
<td>REPORT OF TREASURER</td>
<td>6</td>
</tr>
<tr>
<td>REPORT OF BOARD OF VISITORS</td>
<td>14</td>
</tr>
<tr>
<td>REPORT OF DIRECTOR OF DEPARTMENT OF FERTILIZER INSPECTION AND ANALYSIS</td>
<td>17</td>
</tr>
<tr>
<td>REPORT OF CLEMSON COLLEGE LIVESTOCK SANITARY DEPARTMENT</td>
<td>19</td>
</tr>
<tr>
<td>REPORT OF STATE CROP PEST COMMISSION</td>
<td>22</td>
</tr>
<tr>
<td>REPORT OF DIRECTOR OF EXPERIMENT STATION</td>
<td>29</td>
</tr>
<tr>
<td>REPORT OF DIRECTOR OF EXTENSION SERVICE</td>
<td>43</td>
</tr>
</tbody>
</table>
LETTER OF TRANSMITTAL

To the Members of the General Assembly
Columbia, South Carolina

Gentlemen:

The trustees of The Clemson Agricultural College are pleased to transmit herewith for your thoughtful consideration, the Report of President R. F. Poole, concerning the affairs of the college for the fiscal year, July 1, 1941, to June 30, 1942. The report reviews, in detail, all college activities and gives a fair conception of the broad and useful scope of work in which the institution is engaged. There is also reflected the very efficient service of the teaching staff and general employees.

Respectfully submitted,

W. W. BRADLEY
President, Board of Trustees

December 1, 1942.
WHERE THE CLEMSON
STUDENTS COME FROM
1942-1943

SOUTH CAROLINA 1871
NORTH CAROLINA 119
GEORGIA 140
OTHER STATES 197
TOTAL ENROLLMENT 2327
The fifty-third report covering the forty-ninth session of Clemson College is presented herewith.

The publication contains reports from the Board of Visitors, the College Treasurer, the Director of the Agricultural Experiment Station, the Director of the Agricultural Extension Service, the Director of the Department of Fertilizer Inspection and Analysis, the State Veterinarian, and the State Crop Pest Commission.

These reports show satisfactory progress. All agencies of the college are planning their activities so as to cooperate in the war effort and I believe good results are being secured.

Most successful work has been accomplished in the processing of a high grade Roquefort cheese, in canning South Carolina horticultural products, and in growing and preserving fruits and vegetables for home consumption. Further contributions and efforts toward the enlargement of these worthwhile objectives and a study of dehydration processes would be of inestimable value to the state.

Respectfully submitted,

R. F. POOLE, President
Dr. R. F. Poole, President  
The Clemson Agricultural College  
Clemson South Carolina

Dear Dr. Poole:

I have the honor of transmitting herewith my annual report of the financial affairs of the Clemson Agricultural College of South Carolina for the fiscal year July 1, 1941 to June 30, 1942, in accordance with an act of the General Assembly.

Respectfully submitted,

S. W. EVANS,  
Secretary-Treasurer.

---

THE CLEMSON AGRICULTURAL COLLEGE  
Collegiate Activities  
FISCAL YEAR—JULY 1, 1941 to JUNE 30, 1942

INCOME

<table>
<thead>
<tr>
<th>Income Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1—State Appropriation</td>
<td>$205,000.00</td>
</tr>
<tr>
<td>2—Privilege Fertilizer Tax</td>
<td>$170,000.00</td>
</tr>
<tr>
<td>Less Cost Insp. &amp; Analysis</td>
<td>$32,580.43</td>
</tr>
<tr>
<td>3—Federal Funds:</td>
<td></td>
</tr>
<tr>
<td>Morrill-Nelson and Bankhead-Jones Funds</td>
<td>$45,841.20</td>
</tr>
<tr>
<td>Landscrip</td>
<td>$5,754.00</td>
</tr>
<tr>
<td>4—Tuition and Fees</td>
<td></td>
</tr>
<tr>
<td>5—Interest Clemson Bequest and Anderson Fellowship</td>
<td></td>
</tr>
<tr>
<td>6—Miscellaneous Funds:</td>
<td></td>
</tr>
<tr>
<td>Rents College Residences, Sales Electric Lights and Water</td>
<td>$43,600.49</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Income Collegiate Activities</td>
<td>$691,955.85</td>
</tr>
</tbody>
</table>
**CLEMSON AGRICULTURAL COLLEGE**

**Collegiate Activities**

**EXPENDITURES JULY 1, 1941—JUNE 30, 1942**

*Exhibit A*

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A—Personal Service:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Salaries:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morrill-Nelson and Bankhead-Jones Fund</td>
<td>$45,841.20</td>
<td></td>
</tr>
<tr>
<td>Landschap</td>
<td>5,754.00</td>
<td>$51,595.20</td>
</tr>
<tr>
<td>Other Funds</td>
<td>325,855.41</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>377,450.61</td>
<td></td>
</tr>
<tr>
<td>2. Wages</td>
<td>59,151.81</td>
<td>$436,602.42</td>
</tr>
<tr>
<td><strong>B—Contractual Services:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Travel</td>
<td>3,311.11</td>
<td></td>
</tr>
<tr>
<td>3. Telegraph and Telephone</td>
<td>2,735.87</td>
<td></td>
</tr>
<tr>
<td>4. Repairs</td>
<td>22,524.46</td>
<td></td>
</tr>
<tr>
<td>5. Printing and Advertising</td>
<td>4,166.90</td>
<td>32,738.34</td>
</tr>
<tr>
<td><strong>C—Supplies:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Fuel and Electric Current</td>
<td>35,562.11</td>
<td></td>
</tr>
<tr>
<td>3. Feed and Veterinary Supplies</td>
<td>3,257.56</td>
<td></td>
</tr>
<tr>
<td>4. Office Supplies</td>
<td>6,635.34</td>
<td></td>
</tr>
<tr>
<td>7. Educational Supplies</td>
<td>17,010.33</td>
<td></td>
</tr>
<tr>
<td>8. Motor Vehicle Supplies</td>
<td>3,585.00</td>
<td></td>
</tr>
<tr>
<td>9. Agricultural Supplies</td>
<td>811.83</td>
<td></td>
</tr>
<tr>
<td>11. Other Supplies</td>
<td>937.67</td>
<td>67,799.84</td>
</tr>
<tr>
<td><strong>D—Fixed Charges and Contributions:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Rent</td>
<td>156.00</td>
<td></td>
</tr>
<tr>
<td>2. Insurance</td>
<td>18,325.88</td>
<td></td>
</tr>
<tr>
<td>4. Other Fixed Charges</td>
<td>9,230.25</td>
<td></td>
</tr>
<tr>
<td>Refunds</td>
<td>2,323.97</td>
<td>30,036.10</td>
</tr>
<tr>
<td><strong>G—Equipment:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Office Equipment</td>
<td>488.50</td>
<td></td>
</tr>
<tr>
<td>3. Household Equipment</td>
<td>511.00</td>
<td></td>
</tr>
<tr>
<td>6. Livestock</td>
<td>50.00</td>
<td></td>
</tr>
<tr>
<td>7. Educational Equipment</td>
<td>877.52</td>
<td>1,927.02</td>
</tr>
<tr>
<td><strong>H—Buildings:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Water Plant</td>
<td>75,000.00</td>
<td>75,000.00</td>
</tr>
<tr>
<td><strong>Transfers:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Equipment &amp; Plant Fund</td>
<td>17,000.00</td>
<td></td>
</tr>
<tr>
<td>H. Buildings—Building Sinking Fund</td>
<td>12,900.00</td>
<td>29,900.00</td>
</tr>
<tr>
<td><strong>Total Collegiate Activities</strong></td>
<td>$674,003.72</td>
<td></td>
</tr>
</tbody>
</table>
### Fertilizer Inspection and Analysis, Poison Analyses, Analyses of Water, Soils, Manures, Etc.

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$12,540.00</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>6,152.75</td>
</tr>
<tr>
<td>A-3 Legal Services</td>
<td>250.00</td>
</tr>
<tr>
<td>B-1 Freight, Express and Deliveries</td>
<td>265.26</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>3,922.49</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>146.79</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>104.00</td>
</tr>
<tr>
<td>B-5 Printing and Advertising</td>
<td>826.20</td>
</tr>
<tr>
<td>C-4 Office Supplies</td>
<td>600.16</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>7,606.93</td>
</tr>
<tr>
<td>G-1 Office Equipment</td>
<td>165.85</td>
</tr>
</tbody>
</table>

### Smith-Lever Agricultural Extension Work

**Exhibit B**

#### Receipts:

<table>
<thead>
<tr>
<th>Appropriations</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>$496,824.02</td>
</tr>
<tr>
<td>State</td>
<td>176,000.00</td>
</tr>
</tbody>
</table>

#### Expenditures:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$500,811.38</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>2,080.18</td>
</tr>
<tr>
<td>B-1 Freight, Express and Deliveries</td>
<td>1,840.10</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>115,558.81</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>6,644.47</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>1,886.20</td>
</tr>
<tr>
<td>B-5 Printing and Advertising</td>
<td>6,546.49</td>
</tr>
<tr>
<td>B-6 Water, Heat, Light and Power</td>
<td>561.50</td>
</tr>
<tr>
<td>C-4 Office Supplies</td>
<td>522.63</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>22,187.67</td>
</tr>
<tr>
<td>D-1 Rents</td>
<td>1,269.90</td>
</tr>
<tr>
<td>D-2 Insurance</td>
<td>926.65</td>
</tr>
<tr>
<td>G- Equipment</td>
<td>11,988.04</td>
</tr>
</tbody>
</table>

### South Carolina Experiment Station Federal Funds

(Adams, Hatch, Purnell and Bankhead-Jones)

**Exhibit C**

#### Receipts from Treasurer of the United States:

<table>
<thead>
<tr>
<th>Fund</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hatch Fund</td>
<td>$15,000.00</td>
</tr>
<tr>
<td>Adams Fund</td>
<td>15,000.00</td>
</tr>
<tr>
<td>Purnell Fund</td>
<td>60,000.00</td>
</tr>
<tr>
<td>Bankhead-Jones Fund</td>
<td>59,464.96</td>
</tr>
</tbody>
</table>

**Total** $672,824.02
### Expenditures:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$92,117.88</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>22,444.32</td>
</tr>
<tr>
<td>A-3 Special Payments</td>
<td>160.00</td>
</tr>
<tr>
<td>B-1 Freight, Express and Deliveries</td>
<td>55.77</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>1,954.98</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>775.56</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>2,106.17</td>
</tr>
<tr>
<td>B-5 Printing and Advertising</td>
<td>2,108.65</td>
</tr>
<tr>
<td>B-6 Water, Heat, Light and Power</td>
<td>409.07</td>
</tr>
<tr>
<td>B-7 Other Contractual Services</td>
<td>19.55</td>
</tr>
<tr>
<td>C-1 Food Supplies</td>
<td>401.91</td>
</tr>
<tr>
<td>C-2 Fuel Supplies</td>
<td>1,062.82</td>
</tr>
<tr>
<td>C-3 Feed and Veterinary Supplies</td>
<td>7,179.87</td>
</tr>
<tr>
<td>C-4 Office Supplies</td>
<td>1,314.98</td>
</tr>
<tr>
<td>C-7 Educational Supplies</td>
<td>324.40</td>
</tr>
<tr>
<td>C-8 Motor Vehicle Supplies</td>
<td>1,113.70</td>
</tr>
<tr>
<td>C-9 Agricultural Supplies</td>
<td>2,155.80</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>3,005.90</td>
</tr>
<tr>
<td>D-1 Rents</td>
<td>561.00</td>
</tr>
<tr>
<td>D-2 Insurance</td>
<td>840.17</td>
</tr>
<tr>
<td>D-4 Other Fixed Charges</td>
<td>409.96</td>
</tr>
<tr>
<td>G-1 Office Equipment</td>
<td>173.13</td>
</tr>
<tr>
<td>G-4 Motor Vehicle Equipment</td>
<td>967.33</td>
</tr>
<tr>
<td>G-5 Agricultural Equipment</td>
<td>2,726.21</td>
</tr>
<tr>
<td>G-7 Educational Equipment</td>
<td>528.20</td>
</tr>
<tr>
<td>G-8 Other Equipment</td>
<td>4,522.33</td>
</tr>
<tr>
<td>H-3 Non-Structural Improvements</td>
<td>25.30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$149,464.96</strong></td>
</tr>
</tbody>
</table>

### Agricultural Research

#### Exhibit D

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$23,414.22</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>7,805.73</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>1,718.33</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>157.75</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>265.22</td>
</tr>
<tr>
<td>B-5 Printing and Advertising</td>
<td>593.22</td>
</tr>
<tr>
<td>B-6 Water, Heat, Light and Power</td>
<td>206.26</td>
</tr>
<tr>
<td>C-3 Feed and Veterinary Supplies</td>
<td>1,431.62</td>
</tr>
<tr>
<td>C-4 Office Supplies</td>
<td>606.72</td>
</tr>
<tr>
<td>C-6 Medical Supplies</td>
<td>72.05</td>
</tr>
<tr>
<td>C-8 Motor Vehicle Supplies</td>
<td>2,150.28</td>
</tr>
<tr>
<td>C-9 Agricultural Supplies</td>
<td>2,847.79</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>318.25</td>
</tr>
</tbody>
</table>
SUPPLEMENTARY REPORTS

D-2 Insurance ........................................ 2,126.36
G-4 Motor Vehicle Equipment .................... 92.00
G-5 Agricultural Equipment ...................... 672.39
G-6 Livestock ........................................ 1,350.00
G-7 Educational Equipment ....................... 54.23
G-8 Other Equipment ................................ 526.72
H-1 Purchase of Land ................................ 1,062.39
H-2 Buildings ....................................... 1,200.00
H-3 Non-Structural Improvements ................. 1,328.47 $50,000.00

Crop Pests and Diseases
Exhibit E

Expenditures:
A-1 Salaries ........................................ $ 5,772.50
B-1 Freight, Express and Deliveries ........... 1.17
B-2 Travel ........................................... 579.31
B-3 Telegraph and Telephone ....................... 4.21
B-4 Repairs .......................................... 18.60
C-4 Office Supplies ................................ 48.06
C-8 Motor Vehicle Supplies ....................... 412.77
C-11 Other Supplies ................................ 201.38
G-4 Motor Vehicle Equipment .................... 400.00 $ 7,438.00

Edisto Experiment Station
Exhibit F

Expenditures:
A-1 Salaries ........................................ $ 8,328.00
A-2 Wages .......................................... 5,273.21
A-3 Special Payments ................................ 50.00
B-1 Freight, Express and Deliveries ........... 27.54
B-2 Travel .......................................... 166.66
B-3 Telegraph and Telephone ....................... 134.16
B-4 Repairs .......................................... 312.00
B-6 Water, Heat, Light and Power ................ 284.10
C-2 Fuel Supplies ................................... 327.84
C-4 Office Supplies ................................ 90.01
C-8 Motor Vehicle Supplies ....................... 981.74
C-9 Agricultural Supplies ......................... 1,430.59
C-11 Other Supplies ................................ 1,457.26
D-2 Insurance ........................................ 866.53
G-1 Office Equipment ............................... 122.78
G-4 Motor Vehicle Equipment .................... 545.65
G-5 Agricultural Equipment ....................... 524.79
G-8 Other Equipment ................................ 797.38
H-2 Buildings ....................................... 7,165.28 $30,000.00
H-3 Non-Structural Improvements ................. 1,114.48
### Land Use Project

**Exhibit G**

<table>
<thead>
<tr>
<th>Expenditures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-2 Wages</td>
<td>$5,840.49</td>
</tr>
<tr>
<td>B-1 Freight, Express and Deliveries</td>
<td>$153.61</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>$32.27</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>$700.91</td>
</tr>
<tr>
<td>B-6 Water, Heat, Light and Power</td>
<td>$9.57</td>
</tr>
<tr>
<td>C-3 Feed and Veterinary Supplies</td>
<td>$67.40</td>
</tr>
<tr>
<td>C-8 Motor Vehicle Supplies</td>
<td>$1,051.65</td>
</tr>
<tr>
<td>C-9 Agricultural Supplies</td>
<td>$708.75</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>$92.21</td>
</tr>
<tr>
<td>G-8 Other Equipment</td>
<td>$1,113.43</td>
</tr>
<tr>
<td>H-3 Non-Structural Improvements</td>
<td>$229.71</td>
</tr>
</tbody>
</table>

**Total**                                          | **$10,000.00**

### Tobacco Research Work

**Exhibit H**

<table>
<thead>
<tr>
<th>Expenditures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$1,321.48</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>$2,874.70</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>$27.00</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>$26.67</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>$1,259.02</td>
</tr>
<tr>
<td>B-6 Water, Heat, Light and Power</td>
<td>$301.53</td>
</tr>
<tr>
<td>C-2 Fuel Supplies</td>
<td>$85.00</td>
</tr>
<tr>
<td>C-4 Office Supplies</td>
<td>$47.15</td>
</tr>
<tr>
<td>C-8 Motor Vehicle Supplies</td>
<td>$425.98</td>
</tr>
<tr>
<td>C-9 Agricultural Supplies</td>
<td>$3,186.23</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>$206.62</td>
</tr>
<tr>
<td>G-5 Agricultural Equipment</td>
<td>$1,485.70</td>
</tr>
<tr>
<td>G-6 Livestock</td>
<td>$200.00</td>
</tr>
<tr>
<td>G-7 Educational Equipment</td>
<td>$32.00</td>
</tr>
<tr>
<td>G-8 Other Equipment</td>
<td>$98.66</td>
</tr>
<tr>
<td>H-2 Buildings</td>
<td>$2,469.94</td>
</tr>
<tr>
<td>H-3 Non-Structural Improvements</td>
<td>$432.32</td>
</tr>
</tbody>
</table>

**Total**                                          | **$14,480.00**

### Truck Experiment Station

**Exhibit I**

<table>
<thead>
<tr>
<th>Expenditures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$8,038.00</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>$3,805.13</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>$234.20</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>$188.16</td>
</tr>
</tbody>
</table>
### Livestock Sanitary Work

Exhibit J

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$33,127.68</td>
</tr>
<tr>
<td>A-3 Special Payments</td>
<td>$4,686.75</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>$7,948.88</td>
</tr>
<tr>
<td>B-3 Telegraph and Telephone</td>
<td>$303.25</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>$4.00</td>
</tr>
<tr>
<td>D-2 Insurance</td>
<td>$61.69</td>
</tr>
<tr>
<td>D-3 Contributions</td>
<td>$2,417.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$48,550.00</td>
</tr>
</tbody>
</table>

### Horticultural Products Laboratory

Exhibit K

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-1 Salaries</td>
<td>$2,400.00</td>
</tr>
<tr>
<td>A-2 Wages</td>
<td>$995.20</td>
</tr>
<tr>
<td>B-2 Travel</td>
<td>$165.25</td>
</tr>
<tr>
<td>B-4 Repairs</td>
<td>$46.90</td>
</tr>
<tr>
<td>B-6 Water, Heat, Light and Power</td>
<td>$175.42</td>
</tr>
<tr>
<td>C-4 Office Supplies</td>
<td>$1.39</td>
</tr>
<tr>
<td>C-8 Motor Vehicle Supplies</td>
<td>$64.98</td>
</tr>
<tr>
<td>C-9 Agricultural Supplies</td>
<td>$9.00</td>
</tr>
<tr>
<td>C-11 Other Supplies</td>
<td>$1,395.77</td>
</tr>
<tr>
<td>D-2 Insurance</td>
<td>$5.23</td>
</tr>
<tr>
<td>G-4 Motor Vehicle Equipment</td>
<td>$753.03</td>
</tr>
<tr>
<td>G-8 Other Equipment</td>
<td>$2,712.93</td>
</tr>
<tr>
<td>H-2 Buildings</td>
<td>$1,270.90</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$10,000.00</td>
</tr>
</tbody>
</table>
Cadet Funds
Exhibit L

(These funds, paid by the students for their living and other expenses, are kept entirely separate. None of this money is used to pay the cost of teaching.)

Expenditures:

A-1 Salaries $ 28,498.96
A-2 Wages 89,477.18
A-3 Special Payments 2,333.00
B-2 Travel 1,869.89
B-3 Telegraph and Telephone 1,154.27
B-4 Repairs 22,329.22
B-5 Printing and Advertising 17,567.69
C-1 Food Supplies 283,715.03
C-2 Fuel Supplies 33,270.10
C-4 Office Supplies 793.21
C-5 Laundry Supplies 5,267.45
C-6 Medical Supplies 4,324.41
C-7 Educational Supplies 1,968.98
C-8 Motor Vehicle Supplies 1,834.79
C-10 Uniform 103,999.34
C-11 Other Supplies 23,569.18
D-2 Insurance 6,959.47
D-4 Other Fixed Charges 443.21
D-4 Payment-Dormitory Building Fund 31,001.25
G-1 Office Equipment 257.31
G-2 Medical Equipment 284.28
G-3 Household Equipment 9,770.94
G-4 Motor Vehicle Equipment 1,700.00
G-7 Educational Equipment 17.19
G-8 Other Equipment 14,338.76
H-2 Buildings 3,575.99
H-3 Non-Structural Improvements 562.71
E Athletic Department 21,419.50
E Concert Series 6,523.15

Total Expenditures $718,826.46
Refunds to Students 14,735.98

Total $733,562.44
Balance on Hand July 1,1941 $47,526.64
Balance on Hand June 30,1942 45,934.15

Student Banking Account
Exhibit M

Balance on Hand July 1, 1941 $ 23,947.01
Deposits-Current Year 217,808.10
Checks Paid Current Year $ 214,122.77
Balance June 30, 1942 27,632.34


REPORT OF BOARD OF VISITORS

The Clemson Agricultural College
Clemson, South Carolina
To the Board of Trustees

Gentlemen:

The Board of Visitors of Clemson College for the year 1942 met in the Trustee Building on the college campus on May 6, 7 and 8. We were warmly received on May 6 by President R. F. Poole, Mr. J. C. Littlejohn, Business Manager, and other officials of the college. After a delightful luncheon, we were conducted on a personal inspection tour by Mr. Woodward, Coach Howard, and other college officials. On the second and third days we were conducted on a most extensive inspection tour by Mr. Woodward, meeting the heads of various departments, visiting the farms, campus, inspecting the buildings, conferring with the students, and acquainting ourselves with practically every activity of the college.

The entire Board expressed their feeling of delight with the excellent spirit existing among the student body and faculty and were greatly impressed by the courtesies extended the Board during this inspection tour. Our contacts with the students and officials of the college convinced the entire Board that the students are given every consideration and apparently the students are well pleased, happy, and satisfied and there is no condition existing that would warrant an expression of dissatisfaction by the Board. The well-kept condition of the buildings and grounds was very noticeable and through the observation of the Board, it is their opinion that the grounds, buildings, and equipment, as well as the excellent spirit existing among the students, faculty, and officials, are comparable to that of any institution anywhere in the entire Southeast.

The secretary of the Board of Visitors was also asked to incorporate in his report that the entire Board were very much impressed with the report made in the President's Office by President R. F. Poole and Mr. J. C. Littlejohn, Business Manager. We commend the Business Administration Department for the efficient and economic manner in which it is handling the affairs of the college.

This report would be unnecessarily long if we attempted to bring out all the fine points which we observed during this inspection and we would not attempt to approve at this time many of the fine things that we observed during our visit. However, the Secretary was asked to incorporate in this report and acknowledge the splendid performance of the entire R. O. T. C. unit during its inspection by the high ranking officer from the War Department. We were told by the officer making this inspec-
tion that this was the finest unit he had ever had the pleasure of reviewing.

Members of the Board feel that the fine spirit existing among the stu-
dents and officials is due chiefly to the good food and cooperation given to
the entire student body by Captain Harcombe. The Board would like to
commend Captain Harcombe for the efficient manner in which he is hand-
ling his job. A thorough inspection of the kitchen, dining room, and cold
storage plants convinced the entire Board that the students are not only
receiving the best food that money can buy, but Captain Harcombe and
his entire force are doing everything humanly possible to protect the
health of the students by the clean sanitary conditions existing through-
out the plant. They feel that this favorable condition contributes largely
in itself to the high state of morale existing throughout the entire student
body.

On the afternoon of May 8 after having completed our inspection,
we assembled in the Trustee House and elected Mr. J. Harvey Cleveland
of Cleveland S. C., as hold-over member of the Board for 1943. After
having expressed much commendation of the college and taking cogni-
zance of its most early needs, we respectfully make the following re-
commendations:

1. Immediate consideration should be given to salary increases of
Professors and Instructors in view of the present national crisis, and es-
pecially at this time when there are so many demands on the loyal Ameri-
can’s pocketbook because of Defense Bonds, Red Cross, Income Tax, etc.
Members of the Board are convinced that the Professors and Instructors
at Clemson are equal to those of other great institutions and can only be
held or obtained by making the salaries as attractive as those of other
colleges in the Southeast.

2. That until such time that the textile building can be filled with the
necessary machinery, the much needed vacant space in this building be
utilized by the Chemistry Department in view of its congested condition.

3. We are cognizant of the fact that the Chemistry Department
is very badly in need of additional space and some new equipment and
we recommend that the Board of Trustees give due consideration to our
request to relieve the congested condition existing in the Chemistry De-
partment at this time. We feel that due to change in conditions and
greater demands for developments in chemistry brought about by the na-
tional emergency, immediate action should be taken to relieve this con-
gested condition and purchase some needed new equipment.

4. We further recommend to the Board of Trustees that the College
be authorized to arrange with a competent engineer to make an inspec-
tion of the present heating plant and revamp or overhaul present plant
where found to be too badly worn or of defective material. We under-
stand that the present heating plant is operating at maximum capacity
and that several buildings have been added to the present plant since
it was originally installed and it has been some time since the plant has been overhauled. In view of existing shortage of material, it is suggested that this be given immediate consideration.

5. In order to finance the above recommendations members of the Board feel that it is in order for us to request an increase in the fertilizer tag tax to 35 cents per ton. It is our understanding that the present tax is 25 cents and we recommend a 10 cent increase to 35 cents per ton.

These recommendations are submitted by the following members of the Board of Visitors who feel honored at their selection and who are proud of being acquainted with one of the greatest colleges of the United States:

J. ROSS HANAHAN, Chairman
J. HARVEY CLEVELAND
ROBERT A. EASTERLING
J. R. FUNDERBURK
A. B. JACKSON
J. E. LEPPARD
WILLIAM M. PERRY
ROBERT T. ROSAMOND
COLIN SEAGERS
JOHN B. SLOAN
A. E. CREAMER, Secretary
Dear Dr. Poole:

Below is the report of the Department of Fertilizer Inspection and Analysis for the fiscal year 1941-42. Although the head of the department and some members of the staff were called into military service during the year the work of the department was satisfactorily and efficiently performed.

Respectfully submitted,

H. P. Cooper, Director.

Inspection and Analysis of Fertilizers. In conformity with the South Carolina state fertilizer law, representative lots of all fertilizers sold in the state during the fiscal year 1941-1942 were inspected and weighed. Special attention was given to the labeling of fertilizer to see that all tags and formulae met the requirements of the law. Of the 4970 samples analyzed, 270, or 5.43 percent, were deficient in plant food beyond the limits set by law. In each of these cases, the manufacturer involved was instructed to make a refund to the farmer.

Each fertilizer inspector covers a territory of several counties and lives at a location such that his travel and expenses are at the lowest practical minimum. At the beginning of each season, all agricultural workers and agencies are notified of any change in the inspection arrangements so that maximum service may be rendered.

In addition to the analysis of fertilizers and fertilizer materials the fertilizer laboratory undertakes the analysis of unexploited waters and mineral deposits. It also makes analyses of parts of human bodies for poisons when properly submitted by Coroners.

The following is a brief summary of the activities of the Department of Fertilizer Inspection and Analysis for the year 1941-1942:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots of fertilizer sampled and analyzed</td>
<td>4,970</td>
</tr>
<tr>
<td>Lots of fertilizer found to be deficient</td>
<td>270</td>
</tr>
<tr>
<td>Percentage of fertilizer found to be deficient</td>
<td>5.43</td>
</tr>
<tr>
<td>Number of lots attached because of violations</td>
<td>30</td>
</tr>
<tr>
<td>Number of lots fined because of violations</td>
<td>26</td>
</tr>
<tr>
<td>Total receipts from fines collected</td>
<td>$686.57</td>
</tr>
</tbody>
</table>
Total receipts from registrations ____________________ 2,834.00
Total receipts from tag sales __________________________ 164,703.00
Total refunds to department __________________________ 36.49

Total of receipts 1941-1942 __________________________ $168,260.06
Total of receipts 1940-1941 __________________________ 174,251.22
Decrease ------------------------------------------------ $ 5,991.16
Number of toxicological examinations ___________________________ 11
Number of water samples analyzed ___________________________ 8

**Effect of Nitrogen Shortage on Fertilizer Grades.** On account of the acute shortage of commercial nitrogen, the War Production Board has found it desirable to limit the use of fertilizer nitrogen in order to conserve it for necessary food and fiber crops and for explosives. To facilitate the manufacture and distribution of fertilizer materials, the number of analyses and grades have been restricted to the minimum number considered necessary for the basic crop requirements.

There will probably not be more than 80 percent of the normal supply of chemical fertilizer nitrogen available for the next crop season. This shortage of nitrogen makes it desirable to change most of the grades commonly used in the past in order that the farmers may get maximum results from the fertilizer materials available. The supply of phosphorus will probably be sufficient, but there may be a little less potash than will be needed. The approved analyses will therefore contain relatively less nitrogen and more phosphorus and potash than the grades formerly used. The additional phosphorus and potash will very probably increase the efficiency of the nitrogen used and will be particularly effective in increasing the production of legume crops that utilize and store in the soil atmospheric nitrogen which can be used by crops following the legumes in the crop rotation system.

Considerable pressure will be exerted by certain fertilizer manufacturers to sell farmers low grade fertilizers. The plant nutrients in the low grade fertilizers are usually much more expensive (and their sale more profitable to the distributor) than in the better grades. The total minimum plant nutrient content should not be less than 18 to 20 percent, which will eliminate such low grade fertilizers as 3-8-5 and 4-8-4. Such grades as 3-9-6 or 4-8-6 are more desirable. The low grade fertilizers usually contain sand filler or other non-fertilizer materials. The intelligent, progressive farmers usually use the better grades of fertilizer and every effort should be made to protect the helpless, less intelligent farmers by advising them to select the better grades of fertilizer. When farmers purchase such grades as 3-8-5 and 4-8-4, or other grades with less than 18 to 20 percent of plant nutrients, it is usually more economical to buy the materials and home-mix the fertilizer. This practice will avoid the purchase of a large amount of sand filler.
In accordance with your request of August 14, 1942, we wish to advise that we are submitting the annual report from this department in duplicate, for the fiscal year ending June 30, 1942.

As suggested in your letter, we have made this report as brief as possible.

With kind regards, I am

Yours very truly,

W. K. Lewis, State Veterinarian.

This department of The Clemson Agricultural College, located in the John C. Calhoun Building, Columbia, S. C., is maintained by state appropriations and cooperates with the United States Department of Agriculture, Bureau of Animal Industry, for the control and eradication of contagious, infectious, and communicable diseases in livestock and poultry. Our location is such that service can be rendered to the owners of livestock and poultry in all sections of the state as promptly as possible. The demands for the services of our employees at present are greater than ever before owing to the increased interest manifested in the raising of more and better livestock and poultry.

The activities of this department for the past year are summarized as follows:

**Bovine Tuberculosis Eradication**

All cattle in the State of South Carolina are considered as being free from bovine tuberculosis. The eradication plan of this disease was conducted on a farm-to-farm and county basis, and South Carolina is recognized, not only by the U. S. Department of Agriculture, Bureau of Animal Industry, but by all other states as being a modified accredited area. This status has existed since July, 1935. In addition to this area plan of testing, some of the big breeding and dairying herds in the state are being maintained by the owners in accordance with the accredited herd plan; and at present we have 91 accredited herds, containing 7,323 cattle. This feature seems to be of great importance to the owners of
such herds, as it adds prestige in the sale of purebred and high grade cattle. Each year the sales held by the breed associations reflect the value of this project in the financial income to the herd owners.

**Bang's Disease**

This class of work is being conducted in cooperation with the United States Department of Agriculture, Bureau of Animal Industry, for the purpose of assisting cattle owners in the freeing and controlling of Bang's disease in their herds. This project consists of two classes of work: accredited herds and area testing. At present there are 82 herds containing 5,532 cattle, that are recognized by this and other states as accredited herds. In addition this department has been conducting for the last few years, the area plan, which means the testing of all cattle six months of age and over on all premises in the state. The work so far has been conducted in the following counties: Cherokee, York, Chester, Newberry, Fairfield, Richland, Lexington, Calhoun, Orangeburg, Aiken, Barnwell, Bamberg, Lancaster, Allendale, and is now being conducted in the counties of Union and Saluda. The counties of Cherokee, York, Chester, Newberry, Aiken, Barnwell, Bamberg, Allendale, and Lancaster are recognized as modified accredited counties, as less than 0.5 percent of infection was found.

**Hog Cholera**

During the past year the hog industry has increased more rapidly than in previous years, this being occasioned by the increased value as well as the feeding of surplus foodstuff grown as a result of the curtailment of the growing of certain classes of farm products. This department assisted the farmers in treating 10,763 herds containing 153,241 hogs against cholera. As a result of the department's efforts, the infection during the past year has been relatively small as compared with previous years. Precautions are being taken to render every service possible in preventing dissemination of causative agents of disease. In addition to the assistance rendered farmers by this department, several thousand head of hogs are treated each year against cholera by the practicing veterinarians.

**Swine Sanitation**

The control of internal parasites in swine can be effected only by proper sanitation, and methods for controlling this condition are being followed by numerous hog raisers with wonderful results. The interest in this class of work is increasing each year.

**Laboratory**

The services rendered by this branch of this department are of untold benefit to livestock and poultry owners. During the past year a total of 189,525 specimens from all classes of livestock and poultry were examined and farmers were informed of practical procedure of control. When found necessary, rational methods of control and treatment were recommended to the owners.
Other Conditions

In addition to the major functions performed by this department, services also were devoted toward assisting livestock owners in the treatment of other conditions in their livestock which are of a contagious or infectious nature, such as: Hemorrhagic Septicemia, Keratitis (pink eye), Blackleg, Equine Encephalomyelitis, Rabies, and other conditions that appear to be due to contagion or infection.

Deputy State Veterinarians

In addition to the force that is maintained by this department in Columbia, veterinarians are stationed at strategic points in the state as commissioned Deputy State Veterinarians to assist in emergencies. In this way the livestock industry of the state is assured of full protection in any condition that may arise in the matter of contagious and infectious diseases in their livestock.

Respectfully submitted,

W. K. Lewis, State Veterinarian.
REPORT OF THE STATE CROP PEST COMMISSION

Dr. R. F. Poole, President
The Clemson Agricultural College
Clemson, South Carolina

Dear Dr. Poole:

Following is the annual report of the Crop Pest Commission. A perusal of the report will bring a realization that this agency is confronted with more work than it can do. This fact has been brought to the attention of the General Assembly on a number of occasions without result. Until such time as additional funds are made available, the staff of the Commission will continue to render the most effective service possible under the existing handicaps.

Respectfully submitted,

H. P. Cooper, Dean and Director.

Nursery Inspections

In accordance with the law, all nurseries offering nursery stock for sale must have at least one inspection annually. This work was begun in June and completed in late August. These nurseries, as stated in previous reports, are scattered throughout South Carolina, one or more being located in each of 38 of the 46 counties. One hundred and thirty-eight nurseries were inspected during the season. One nursery was added to the list during the year. The acreage, however, remained practically the same due to a decrease in a few of the older nurseries.

All of the stock in these nurseries was found to be in pretty good condition. No serious pests were found in any of them, though there are always found a few isolated plants infested with such pests as scale insects, bagworms, lace bugs, and red spiders. Control or eradicative measures are recommended at the time of inspection and response from nurserymen in carrying out these recommendations has been very satisfactory.

As usual, numbers of inspections were made for home owners who do not have sufficient plant material to be classed as regular nurserymen. These people, however, ship quantities of plants through the mails which automatically require certification by the inspectors of the Crop Pest Commission. While this service involves considerable additional expense and time, the Commission, in continuance of its policy and cooperation, has made as many of these inspections as funds permitted.
In order that nursery stock and other plant material produced by
the South Carolina growers may enter and proceed through the regular
channels of commerce with the least delay possible, it is required that
a permit tag issued by the Commission accompany each shipment. For
this purpose during the season there were issued 11,008 permit tags, an
increase of 2,822 over last year.

During the 1941-42 season phony peach inspections, which are in
addition to the regular nursery inspections, were given the environs (with­
in a radius of one mile) of all nurseries in three counties, involving 128
properties upon which were inspected 75,362 peach trees. There were
growing in these nurseries 67,005 peach trees of nursery stock size. No
phony trees were found within the one-mile radius, leaving these nurs­
eries free to dispense of their stock through the regular trade channels
when other regulations have been complied with.

Inter-State Regulations

The enforcement of inter-state regulations deals with the shipment
of nursery stock into South Carolina. In order that insect pests and
plant diseases from other states may not be shipped into South Carolina,
it is required that all out-of-state nurseries file with the Crop Pest Com­
m ission duplicate inspection certificates issued and signed by an author­
ized inspection official of the state or country of origin. These duplicate
certificates must show, to the satisfaction of the officials of the Crop
Pest Commission, that the nursery stock covered by the certificate has
been properly inspected and found free of injurious insect pests and
plant diseases. After these requirements have been complied with, free
movement of plants is then allowed into and throughout the state. During
the year, 244 nurserymen located throughout the United States registered
for business in South Carolina. In many sections of the United States
there are insect pests and plant diseases that do not yet occur in South
Carolina, some of which, if introduced, might become serious enemies to
various agricultural crops. When one knows these facts it is not hard
to realize the importance of the regulatory service rendered by the Com­
m ission. In no other business is the old adage, "an ounce of prevention
is worth a pound of cure", more true than in plant quarantine work.

The South Carolina regulations have for many years required that
a permit tag issued by this Commission accompany all shipments coming
into the state. To the nurserymen in other states shipping into South
Carolina there were issued last season 40,175 tags.

Greenhouse Inspections

As is the usual custom, the annual inspection of greenhouses was
made during November and December, because at this time the houses
contain the greatest variety of plants, and any insects and diseases can
be more easily observed. At this inspection, in addition to the search
for especially injurious insects and diseases, particular attention was given to recommendations leading to control of the common pests. During the season the usual light infestations of scale insects, aphids, red spider, cyclamen mite, and leaf diseases of roses were found in some of the houses. The operators of these houses are familiar with these common pests and remedial measures are constantly being employed. Most greenhouses, in addition to the plants under glass, have adjacent outdoor plantings which are inspected at the same time.

**Bulb Inspections**

Although bulbs are classed as nursery stock by the regulations of this Commission, the peculiar habits of the pests affecting this crop make it necessary that two inspections be made annually instead of the customary one inspection given the regular nurseries. The first of these inspections is made during the growing season and the other while the bulbs are in storage. While the acreage planted to this crop has been greatly decreased during recent years, 150 acres are still devoted to paper white narcissus. This entire acreage is grown by Buckfield Plantation at Yemassee, and produces approximately 1,500,000 saleable bulbs each year.

Twenty-four hundred special permit tags were issued for the movement of this crop last season.

**Sweet Potato Inspections**

As required by the regulations, properties of all growers of sweet potato plants and seed sweet potatoes were inspected three times. Requests for these inspections have increased steadily during recent years, due to an increased interest in potato growing in this state revived several years ago through the introduction of the Louisiana strain of the Porto Rico variety.

The first, or field, inspection is made for stem-end rot or wilt. This disease is not uncommon but the inspectors are endeavoring to eliminate it entirely from the fields of growers producing seed and plants. Progress has been made in this direction, but it requires the continual vigilance of the inspectors because so many growers attribute the death or dying of plants caused by this disease to some other cause. This disease has not proven serious in fields of any of the growers receiving the regular inspections, but easily can become a problem if proper sanitary and cultural methods are not observed.

The second, or storage, inspection is made primarily for black rot. This disease is by no means the only one encountered or looked for by the inspectors during this inspection. It, however, is the one with which quarantine officials are mostly concerned. The finding of black rot has steadily decreased to the point where it is rare to find potatoes infected with it where fields of the growers have received the regular annual in-
spectations. Quite often surface rot has been found doing considerable damage to potatoes in storage and to a lesser degree the skin disease known as scurf has been encountered. An occasional potato infected with charcoal rot and Java black rot is found, though these two diseases are rare. Soft rot is often quite common, especially when the potatoes are banked.

Several years ago the Commission passed additional regulations with the view of certifying seed and plants for certain growers. Certified seed, of course, have a much smaller tolerance for disease than is allowed under the old regulations, therefore an additional field inspection is required. Thirteen growers qualified for certification last season, requiring 52 inspections. One hundred forty-nine growers received inspections under the old regulations requiring 447 inspections. To the South Carolina growers and to those growers in other states shipping into South Carolina were issued 11,740 permit tags.
Irish Potato Inspections

Although an endeavor was made again this season to inspect all seed Irish potatoes coming into Charleston, the work was very unsatisfactory in that only about half of the potatoes brought into the county could be covered. Heretofore, practically all shipments have been brought in by the Clyde-Mallory Steamship Company and were unloaded at their docks in Charleston. During the past season this could not be done on account of war conditions; consequently potatoes arrived by rail, by water from Savannah directly to the grower’s private wharves, and by truck. Practically all of the shipments arriving by rail were inspected but it was impossible to see many shipments that went directly to the growers unless they notified the Commission. Very few went to the trouble of doing so. A total of 112 cars was inspected as compared with 268 the previous season. If the same conditions regarding shipments exist next season as last, the practicability of making the inspections is doubtful. Below is a tabular report of certified and selected seed inspected last season.

Number of car loads of certified and selected seed potatoes inspected by varieties and state of origin.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certified Seed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cobbler</td>
<td>48</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>19</td>
<td>67</td>
</tr>
<tr>
<td>Green Mtn.</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Katahdin</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Bliss</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>White Rose</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Pontiac</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>57</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>20</td>
<td>86</td>
</tr>
</tbody>
</table>

| **Selected Seed** |       |       |       |      |         |       |
| Cobbler          | 23    | 0     | 0     | 0    | 0       | 23    |
| Bliss            | 2     | 0     | 0     | 0    | 0       | 2     |
| Katahdin         | 1     | 0     | 0     | 0    | 0       | 1     |
| **Total**        | 26    | 0     | 0     | 0    | 0       | 26    |

Several carloads of certified cobbler were infected with sufficient rhizoctonia to place them very near the border line. Scab was not as prevalent as usual. Stem-end browning was quite common, with net necrosis moderately so. Late blight occurred in about the usual percentages. Four carloads of selected seed were found infected with bacterial ring rot.

An inspection of a good many fields during the season showed rhizoctonia quite prevalent.
Cabbage and Tomato Inspections

Cabbage and tomato plants are not grown on a large scale commercially in South Carolina, though each year a few calls for inspection are received. Last season, inspections were made for six tomato plant growers. These plants were produced in hot beds only. Approximately six acres of cabbage plants were inspected for three growers. For the shipment of these plants there were issued 200 permits.

Cotton Seed

While the regulations of the Commission permit growers to file affidavits giving certain facts regarding the production of planting cotton seed and the Commission issues to them permits upon the acceptance of these affidavits, there are still a few states that require actual inspection of the fields before South Carolina planting cotton seed will be accepted. These inspections are made in order to determine the presence or absence of injurious insects and diseases. Inspection of the cotton fields of various plant breeders was made last season over an area comprising approximately 3000 acres, in order that they might be in line for shipment of seed to any state. Last season 34,750 permits were issued for the transportation of planting cotton seed.

Apiary Inspections

In accordance with the Bee Disease Act and regulations, all apiaries selling package bees or queen bees were inspected during early spring, and other small apiaries for individuals were inspected throughout the summer. This type of inspection is a requirement of other states as well as South Carolina, and is necessary if our beekeepers wish to ship outside of the state. As many inspections for individuals are made during the summer as time and funds will permit. This work is increasing each year and has about reached the point where there is more than the present force can take care of efficiently. In case diseased colonies are found, it has been the custom for the inspectors to do the clean-up work themselves. With the shortage of inspectors and funds, it is felt that after the proper diagnosis has been made and the proper procedure outlined, the beekeeper should be sufficiently interested to do the clean-up work himself. Last season 4,030 colonies of bees were inspected. Six colonies were found infected with American foulbrood, and three colonies with European foulbrood. In all diseased colonies, prompt eradicative measures were taken to prevent spread.

Phony Peach Inspections

Each year since the discovery of this disease in the peach orchards of South Carolina, the State Crop Pest Commission has, in cooperation with the Federal Bureau of Entomology and Plant Quarantine, carried on inspections with the idea of eradicating the disease. Our efforts so far have been encouraging. During 1942, orchard inspection activities in this State were confined primarily to the inspection of previously infected and adjacent properties. In the entire State there were inspected 529 properties involving 778,399 trees. A total of 69 phony trees was found and removed from 28 properties.
SUPPLEMENTARY REPORTS

The eradication of abandoned and escaped trees was continued up until May 6. During the period, 359 abandoned properties were worked and 47,884 trees removed. Also during this period, 163,054 escaped trees were removed from 186 properties. The labor for this work was supplied entirely by W. P. A.

**Potato Tuber Moth Inspections**

During the period May 18-26, the inspectors of the Commission, in cooperation with an inspector of the Federal Bureau of Entomology and Plant Quarantine, made a survey of the potato and tomato fields of representative sections of Charleston and Beaufort counties to determine to what extent the potato tuber moth occurred in these districts. Inspections were also made by the Bureau in Horry county. These districts were selected because they had the greatest acreage planted to potatoes. The insect is also a pest of tobacco, and this crop was inspected when planted near potatoes. It is a serious pest on potatoes in storage in many states, especially where a fall crop is grown. In Charleston county, 1,031 acres of potatoes and 4½ acres of tomatoes were inspected. A small infestation of tuber worm was found on two properties involving about three acres of potatoes. No infestations were found on tomatoes. In Beaufort county, 360 acres of potatoes and nine acres of tomatoes were inspected with negative results. In Horry county, the insect was found infesting tobacco where it is known as the tobacco split worm. It has been reported as occurring in South Carolina for many years, but this was the first systematic survey ever made. There has never been any damage reported to the commercial crop, and as long as our growers continue to obtain seed and produce the crop as they are doing now, it is not likely to become a problem.

**Japanese Beetle**

Trapping was again carried on in South Carolina during the past spring, as in previous years, with the result that 16 beetles were found at Greenville as compared with 18 last year; 43 at Florence, as compared with eight last year; one at Charleston, as compared with 12 last year. One beetle each was taken at Sumter, Columbia, and Spartanburg. The Federal authorities feel that the Florence and Greenville areas should be treated this fall because beetles have been trapped in these areas for three years in succession. Whether or not this can be done depends upon obtaining $1,500 or $2,000 for the purchase of arsenate of lead and for the payment of labor.

**White Fringed Beetle**

A survey of the seaboard cities in South Carolina was made again this spring to determine whether or not the white fringed beetle had become accidentally introduced and established through shipments from foreign countries. None was found in this state, though new infestations have been discovered at Wilmington, Burgaw, Atkinson, and Goldsboro, North Carolina. Other infested states are Louisiana, Mississippi, Alabama, and Florida. This insect is a rather cosmopolitan feeder and destructive to many crops. It is peculiar in that it is parthenogenetic, any specimen if introduced, being potentially able to start infestation. This is a pest which it is hoped can be kept out of South Carolina.
Dear Dr. Poole:

I submit herewith a report of some of the activities of the South Carolina Experiment Station, particularly those activities which for one reason or another are of special current interest. For a more complete and detailed report of the agricultural research conducted at Clemson and the different branch stations, reference should be made to the last annual report of the station. Copies of this report will be sent to interested persons on request.

Although several members of the staff have been called into military service, and others will probably be required to report in the near future, it is hoped that most of the investigations can be continued. The greater part of the research done by the experiment station has a direct bearing upon food and feed production essential to the war effort. The results of many investigations will be of help not only in winning the war but also in furnishing sounder bases for post-war agriculture. Since this is true, the research program should be continued and if possible increased so that the solution of agricultural problems may be delayed as little as possible.

Respectfully submitted,

H. P. Cooper, Dean and Director.

Research shows need for adequate liming program. Numerous attempts have been made during critical agricultural periods to develop a more diversified cropping system in South Carolina, but without much permanent success. This failure to succeed has been due to the high acidity of a large proportion of the cropland in the state. A survey by the experiment station a few years ago showed that only 20 percent of the soils sampled had a reaction suitable for profitable diversified farming including the production of all types of food and feed crops and livestock. Another 40 percent would produce cotton, tobacco, and other acid-tolerant crops, while the remaining 40 percent was too acid to grow these crops profitably.

Following the completion of the survey, efforts were made to bring these facts to the attention of farmers and encourage them to make the applications of lime needed to neutralize the acidity of their soils so that a diversified system of agriculture might be established. However, the use of lime on South Carolina farms, as many recent soils analyses continue to show, should be greatly increased, and one of the biggest
problems confronting the agricultural leadership of this region is the estab­lishing of a liming program which will increase the proportion of our soils that can be expected to produce sufficient yields for profitable returns.

It will require more than a million tons of limestone annually to correct the excess soil acidity and maintain a favorable reaction in the soils of the state. The establishing of such a liming program will necessitate a large increase in the supply of lime materials. Fortunately there is an unlimited supply of lime available in the eastern part of the state. In the construction of the Santee-Cooper power plant extensive lime deposits were encountered, and there are large quantities of marl which are suitable for agricultural use on the "spoil" banks of the tail canal at that plant and at other locations.

The Santee-Cooper project is near the center of the lower Coastal Plains (an area from 50 to 75 miles wide along the coast), which is well adapted to the establishment of a profitable diversified system of agriculture if the excess soil acidity is corrected. The accessibility of lime materials in that section makes it possible to develop a large-scale demon­stration of the effect of lime on the establishment and maintenance of profitable diversified systems of agriculture.

The recent widespread interest in liming the soil as a soil conserv­ation feature of the Agricultural Adjustment Administration is one of the most significant developments in our agricultural program. Every effort should be made to encourage and extend this program, as that is the only way we can hope to develop a more self-sufficient diversified system of agriculture which will support a desirable standard of living on many farms.

Canning research points way to more substantial canning industry in South Carolina. Three years ago, the commercial production of peaches in this state threatened to reach proportions which would result in a serious marketing problem. Not only was there great potential production in South Carolina but competition could be expected from large acreages in Georgia and North Carolina. The South Carolina growers concluded that the processing of a portion of their crop would be helpful in solving the overproduction problem, and obtained from the General Assembly an appropriation to finance research in peach canning and other processing methods. As a result a horticultural products research laboratory was established at Clemson and the investigational work was begun.

Heretofore canned peaches have been chiefly the firm-fleshed cling­stone variety processed in California. Relatively few yellow freestone peaches such as are grown in South Carolina were canned. These possessed superior flavor but were not attractive in appearance. The Califor­nia peaches, on the other hand, were of beautiful appearance, although lacking in flavor. The problem, therefore, was to develop processing meth­ods capable of turning out canned freestone peaches not only of fine flavor but of attractive appearance. The Clemson laboratory has demon­strated that this can be done. The laboratory has also helped commer-
cial canners to modify their processing methods so that they are now packing peaches which are rapidly making a name for themselves in the market.

Three specific contributions have been made as a result of the canning research done to date:

1. A modified method of lye-peeling has been developed which is a great improvement over previous processes.

2. Storage of the fruit under certain conditions between picking and canning has been found to greatly improve the color and flavor of the canned product and the facility with which it is peeled.

3. Through the experimental canning of a large number of varieties, a combination of varieties which are desirable for processing and which ripen successively during the season has been determined. Production of such a succession of varieties will enable a cannery to operate on peaches alone for a period of two months, whereas a single variety would last only 10 days or two weeks.

This laboratory has also been concerned with canning vegetables and the processing of jams, peach juice, spiced peaches, peach preserves, and peach butter. Recently quick-freezing equipment has been installed and many varieties of peaches and some other products have been quick-frozen to determine their suitability for this method of processing.

Commercial food processors from South Carolina, North Carolina, and Georgia, as well as a great many other visitors, have inspected the work and products of the laboratory and have expressed their keen interest in and commendation of the investigations being carried on. It is hoped that the improvements which have been achieved in the processing of peaches can be duplicated in part at least in the case of vegetables and other products, and thus help to further enhance the esteem with which the canned products of the state are regarded.

Turkey problems under study. Turkey production in South Carolina has increased markedly during the past few years, and at present the annual value of the turkey crop to the state is considerably over a half-million dollars.

This increase has resulted in a number of production problems which can be solved only by experimentation. To finance the needed research the turkey growers requested an appropriation by the General Assembly, which was granted. The work is now getting well under way.

Studies on spring egg production of turkeys and the fertility and hatchability of turkey eggs indicate that considerable improvement may be effected through selection and better management of the breeding stock. Comparative cost of production studies with Broadbreasted Bronze and small-type Broadbreasted turkeys are being made. The smaller bird is a more desirable size for the individual family and should prove popular at the holiday season. Confinement and range methods of production are under comparison, including a study of various forage crops for turkeys. Disease problems with turkeys, particularly blackhead and trichomoniasis are also studied with emphasis upon possible methods of control.
Recent Research indicates great possibilities in production of table stock sweet potatoes. The sweet potato is the most important vegetable crop in the south and in South Carolina. Large quantities are grown for consumption within the state and moderately large quantities are grown for long distance shipment. To solve the problems of the table stock sweet potato industry, a comprehensive research program was initiated by the experiment station about five years ago. This program includes the development of new varieties and strains, and the investigation of cultural practices necessary for higher yields.

As a result of single plant selections made in 1936, a new strain has been introduced to the sweet potato growers of the state. This strain was selected from the Porto Rico variety and combines high productivity with smoothness and good skin and flesh color of the roots. It is known as Edisto Strain 24 and seed in some quantity will be available next spring.

The investigations on cultural practices show the necessity of hill selection and the examination of seed stock to eliminate undesirable variations, the value of close spacing of plants in the row, the desirability of side placement of commercial fertilizer, and the maintenance of high ridges to secure large yields of highly colored roots.

Growers who are using improved strains and are following practices recommended on the basis of these experiments are now obtaining yields varying from 150 to 250 bushels of No. 1 potatoes per acre. Since the average total yields for the state are about 100 bushels per acre, the benefits derived from these experiments are obvious.

The experiment station has also conducted experiments to determine the influence of environmental and cultural factors on the production of sweet potato plants in electrically heated hotbeds. Factors making for maximum production of plants are a soil temperature of 83 to 85°F., horizontal spacing of the heating cable nine to ten inches apart, placing the roots close together, using soil instead of sand for bedding, and supplementing the soil with commercial fertilizer. A combination of these desirable factors reduced the consumption of electricity as much as 50 percent. Thus, the results are valuable to growers who are using electricity as a source of heat in hotbeds.

Experiments with possible new crops for South Carolina. Supplies of many essential agricultural products formerly imported from various parts of the world have been cut off or drastically curtailed because of the war. This has stimulated a great deal of interest in the possibility of producing some of these products in South Carolina. While any great enthusiasm over these possibilities seems unwarranted, some of them may have real promise and the crops involved should be carefully investigated. If any of them can be grown successfully, they will contribute toward a greater diversification of the agriculture of the state.

Such a variety of crops and products has to be considered that the experiment station is unable to divert from its established activities sufficient funds or personnel to explore the many promising aspects of this
problem. It is suggested, therefore, that the General Assembly provide an appropriation to test the different crops for their adaptability to conditions here and for determining the amount and quality of the products derived from the different plants. Some of these crops, if grown, will occupy only a few hundred or at most a few thousand acres of land and the problems connected with their culture will require considerable research for their solution. In the aggregate, however, these crops may prove to be of such importance as to justify the expenditure of a good deal of time and effort in studying them.

Among the plants in which there has been much interest are those which yield rubber. Although a number of plants native to the United States have been mentioned as likely sources of rubber, it appears from all the information available that the goldenrod is probably the most promising one for South Carolina. Some of the plants which have received wide publicity require semi-arid conditions for the development of a satisfactory rubber content. Goldenrod develops its rubber naturally in the fall as the plant matures and grows well under Southern conditions. Strains producing relatively high percentages of rubber have been developed by the U. S. Department of Agriculture. Four of these are being grown this year at Clemson and will be checked for rubber content and yield.

Another rubber plant in which there is much current interest is the Russian dandelion (Kok-Saghyz). Recently the experiment station has received some seed of this plant which will be planted this fall (1942) to test its adaptability to South Carolina. The U. S. Department of Agriculture is making large-scale tests of the Russian dandelion in different parts of the country to determine its possibilities in the present emergency. The Russians produce large quantities of it and regard it as an important source of rubber.

In cooperation with the Bureau of Plant Industry, USDA, six varieties of castor beans are being tested at the Sandhill and Edisto stations. Castor oil, produced by this plant is useful in connection with the war effort and since the plant grows well in South Carolina, its culture may prove to be worthwhile.

The utilization of okra plants for two purposes is being investigated by the experiment station in cooperation with two other agencies. In one case a study of the plant as a source of fibre is being made and in the other its possibilities as a source of mucilage are under investigation.

Paprika pepper production and manufacture have recently been established in Dillon, Darlington, and Florence counties. The original seed brought to this country from Europe was badly mixed. With the aid of the experiment station rapid progress has been made in developing pure strains of superior color and better yielding capacity adapted to the production area.

Hot peppers of cayenne type have been grown in Florence county for many years. War conditions have increased the demand for this type of pepper and emphasized the need for improvement in the strains now
planted. These are highly variable as to plant characters, including pungency, or capsaicin content, which ranges from the mildness of sweet peppers to extreme pungency. Work has been initiated with the objective of developing a strain or strains which will conform to strict standards of uniformity as to type, production, and capsaicin content.

Some attention has been given by the experiment station to medicinal, condiment, and essential oil plants which have been much discussed recently. Small experimental plantings have included dill, coriander, sweet basil, chicory, and other similar crops. Some of these could probably be grown profitably in South Carolina, but the details of their successful culture are still to be learned. For example, the germination of the seed of a number of these species presents a considerable problem not to mention the proper spacing, fertilization, and harvesting methods.

While these new crops hold considerable promise for South Carolina agriculture, probably none of them have possibilities equal to those that have recently developed in the use of sweet potatoes as a feed for livestock. Perhaps the greatest handicap to livestock production in the South has been the lack of a cheap carbohydrate feed. Corn, which is the carbohydrate feed of the middle west, will not yield sufficiently well in the South to permit competition with other areas. It has been demonstrated recently that the sweet potatoes from one acre of land have a feed value equal to the corn from three acres, average yields of both crops considered. This relatively cheap feed, if taken advantage of, may prove to be an important factor in the expansion of the livestock industry in the South. However, there are many details of producing sweet potatoes for this purpose and of feeding them to livestock, which remain to be worked out. One of these concerns the best method of handling the potatoes so they may be utilized economically. Dehydration seems to be the answer to this problem. Experiments in Alabama have shown that dehydration may be accomplished very cheaply by shredding the raw potatoes and drying the product in the open. The dried material can be stored indefinitely. Cattle feeding tests using the dried sweet potatoes have been very encouraging but the hog feeding trials were not satisfactory. Much additional work on the dehydration process and methods of feeding the dried product is needed.

The production of sweet potatoes as a source of starch (for textiles, adhesives, etc.) and alcohol should receive more consideration than it is now receiving. With imports of tapioca and potato starch now greatly reduced, sweet potato starch would seem to be the logical substitute. Advantage should be taken of the present situation to bring the merits of sweet potato starch to the attention of industries which can use it.

The experiment station is giving attention to high starch producing strains of sweet potatoes in its breeding program and is also carrying on experiments in the production of the crop which will apply to sweet potatoes grown for starch and for feeding to livestock as well as those produced for table use.
Research in cheese manufacture. If the dairy industry in South Carolina is to develop as it should, there must be a growth of dairy manufacturing in order to stabilize production. In anticipation of this, the experiment station has investigated the possibilities of the conversion of milk into various products. About two years ago experiments with blue mold cheese were initiated. Special atmospheric conditions necessary for the proper curing of this type of cheese were found in the Stumphouse Mountain tunnel.

The first batch of blue mold cheese cured in this tunnel was found to be a product of excellent quality. Subsequent trial batches have been placed into the tunnel at frequent intervals for curing since last October. By the latter part of June enough cured cheese was on hand to place it on limited sale locally.

The cheese has been enthusiastically received by the consuming public, as evidenced by the numerous commendatory letters received. In spite of the limited sales outlet, the demand for the cheese is reaching a volume that could support a small commercial enterprise, providing the milk and equipment could be obtained. The present demand is much greater than the experimental trials can sustain. However, before large scale production can be justifiably begun, it will be necessary to continue the experiments for some time in order to standardize the manufacturing technique necessary to insure consistent success.

New information for truck growers. The truck growing industry in South Carolina is served chiefly by the Truck Experiment Station, near Charleston, where a large amount of research with vegetable crops is carried on. An important phase of the research program at that station has been the testing of new potato varieties and seedlings to determine whether they are adapted to South Carolina conditions. It has been found that Pontiac, a red-skinned variety, and Katahdin, a very attractive white-skinned variety, are well adapted and that they may be expected to give satisfactory yields under a rather wide range of growing conditions. A number of new un-named seedlings have also been tested and several of these have done so well in Charleston county that they will probably be named and released within the near future.

The fertilizer experiments conducted with cabbage and potatoes reveal some significant facts when considered in connection with the importance of conserving fertilizer materials. Growers have often used from 2000 to as much as 3000 pounds of fertilizer per acre on these crops and have supplemented such applications with heavy side-dressings of nitrate of soda. Experiments have shown that in most years satisfactory yields of these crops may be made with the use of only 1500 pounds of a complete fertilizer, and that no side-dressing is necessary for potatoes. A side-dressing of nitrogen, equivalent to 150 pounds per acre of nitrate of soda, is beneficial to cabbage.

The average yield of all vegetable crops has been increased as a result of the research work on the use of lime and certain minor elements. Proper use of these materials permit the use of less than the usual
quantity of fertilizer which is very important during the present emergency period.

Breeding work with cucumbers has resulted in the development of several lines which show considerable resistance to downy mildew, the most serious disease of this crop. These are being increased and will be available for distribution in about two years. Although the color of the fruit is not quite as good as that of some of the best commercial varieties, the plants are prolific and require little dusting in the spring. It is thought that they may be of value to home gardeners as well as to some commercial growers.

As a result of studies of the local adaptability of the varieties of a number of vegetable crops, better varieties have been discovered of some of the standard crops. In addition, the discovery of adapted varieties has resulted in the commercial planting of other crops not formerly produced at all.

Treatment of vegetable seeds prior to planting with very small amounts of certain fungicides at a negligible cost has been found to increase stands, percentage of healthy plants, and yields. Spargon, a new organic chemical, has given marked increases in stands and yields of peas and lima beans. Okra has responded well to treatment with Spargon and Ceresan. Vegetable growers are faced with shortages of labor, seed, and fertilizer, and methods which will assure good stands are essential for maximum production and profit.

Research on peas during the past five years indicates that the use of more than 600 pounds of a fertilizer such as a 5-10-5 does not increase yields. Likewise, applications of nitrogen as a side-dressing are not profitable. Many poor stands have been caused by fertilizer injury to the seed. It is very important, therefore, that the fertilizer be applied so that it does not come in contact with the seed. The stand and yield of peas may also be increased significantly by treating the seed with Semesan or Spargon.

For years treatment of seed Irish potatoes has been recommended in various states for the control of tuber-borne diseases. Experiments during the past two years have indicated that in South Carolina seed treatment by the ordinary methods does not usually result in increased yields. Further experimentation will be necessary to determine the value of certain new compounds for the treatment of seed potatoes.

Studies of cotton diseases contribute to profits of growers. Seed treatment of cotton seed with chemical dusts has undoubtedly been a significant factor in the greater yields of cotton per acre in South Carolina the past few seasons. Results of experiments and farm demonstrations have shown clearly that the expenditure of less than twenty cents per acre for dust has resulted in increased yields worth up to ten or eleven dollars per acre. Research workers of the South Carolina Experiment Station took a leading part in developing this new treatment. Surveys in which cotton seedlings from various sections were sent to Clemson for
examination revealed that soil fungi, contrary to general opinion, caused only minor losses but that the anthracnose boll rot fungus was causing about 85 percent of the death of seedlings. Boll rot surveys, however, showed that relatively few bolls in most fields were infected with the anthracnose fungus. The gin was thereupon suspected as the agent which was disseminating the spores of the fungus from the few infected bolls to the many seed passing through the gin. Accordingly, seed and trash were collected from a number of gins in the state and as many as 80,000 of the anthracnose fungus spores per seed were found in some lots of seed. It was shown, too, that in ginning a fungus-free lot of cotton, the seed could become infested by the spores which were left in the gin from a diseased lot. This infestation of seed at the gins probably goes on constantly and explains why it is advisable to treat all cotton seed before planting, even though from fields where no rotten bolls were noted.

Among the diseases of cotton which have received a good deal of attention from the experiment station is cotton wilt. There are many fields and gardens in South Carolina in which not only cotton, but also such crops as cowpeas and tobacco are all affected by a wilt disease. Until recently, it was thought that the fungi causing wilt of these plants were separate species. With the discovery that wilt of cotton and of Burley tobacco in South Carolina is caused by the same fungus, further studies were begun to clear up the confusion relative to these diseases. It was soon found that the cotton wilt fungus also causes wilt of okra and wild senna, or coffee weed (Cassia tora), which is found in many fields. It was also found, for example, that strains of the tobacco wilt fungus from two states may differ in the types of tobacco and other crops which they attack.

The wilt fungi from sweet potatoes, cowpeas, tomatoes, watermelons, and other crops are now being studied to determine what plants these fungi will attack. Where crop rotation is practiced to reduce the damage from wilt, it is very important to avoid the successive planting of two crops which may be damaged by the same disease. The problem of wilt is very complicated and much experimental work is necessary before accurate information can be given the growers. It illustrates a type of research which though not spectacular in its results may have far reaching importance to the agriculture of the state.

Research has helped increase livestock production. During recent years the livestock industry in South Carolina has made rapid strides. In 1931 the total weight of hogs sold was 84,000,000 pounds, while in 1939, 156,450,000 pounds were sold. The number of pounds of beef sold in 1931 was 36,825,000 as compared with 56,145,000 pounds sold in 1939. The outlook is for continued expansion of beef cattle and hog production. The reduction of the cotton acreage and the shortage of labor have caused farmers to become more interested in livestock production, and research by the experiment station has contributed information on more economical methods of feeding, management, and breeding.
The experiment station has done several years' work to determine the feed-saving value of forage crops and the relative values of the different forages for hogs. Before these tests were conducted it was estimated that only about 25 percent of the hogs had access to forage crops. The present estimate is that about 75 percent of the hogs now have access to forage crops for at least a part of their growing period.

Tests have also been conducted for several years to determine the feed-saving value of protein supplements of both plant and animal origin and the relative values of these supplements. The results of these experiments and the feeding demonstrations which followed have completely revolutionized hog feeding practices. At least 90 percent of the hog feeders are making use of animal protein such as fishmeal or tankage. Many feeders are using a combination of animal and vegetable proteins.

Recent experiments have had as their objective the determination of the value of crossbreeding hogs. The results show that crossbred pigs make faster and slightly more economical gains than the purebreds. Also a larger percent of the crossbred pigs were raised because the pigs were larger and stronger at birth. This work is still in progress and a few farmers are using this system of breeding.

The Corn Belt ration of corn and legume hay for beef cattle has been compared with our Southern ration of cottonseed meal and hulls to determine the economy of gains and the quality of beef produced. For short feeding periods, up to 200 pounds gain, the meal and hulls ration made cheaper gains than the Corn Belt ration. There was no difference in the quality and palatability of the beef, even when the cattle were fed to a gain of 300 pounds per head.

Other work with beef cattle has shown that the cost of wintering breeding cows may be substantially reduced by reserving permanent pasture for grazing during late fall and early winter.

Experiments have proven that phenothiazine (a new vermifuge) is very effective in the removal of stomach worms and nodular worms in sheep and cattle. The advantage of this drug is that it is relatively non-toxic. Sheep and cattle producers are beginning to make considerable use of this remedy.

**Dairy industry aided by experiments.** The current emergency deficit of milk and milk products, has re-emphasized the need for expansion of the dairy industry in this state. The research work in dairying has been directed toward obtaining information for the guidance of dairymen in the growth of the industry and to aid them in becoming more efficient producers and manufacturers.

One of the cardinal factors affecting the dairy industry is economical production of feed. Recently completed experiments with annual grazing crops and permanent pastures for dairy cattle at the Sandhill Station revealed that permanent pastures yielded nutrients at a lower cost than any of the annual grazing crops—soybeans, pearl millet, corn and velvet beans and oats, barley and vetch. Though the cost of nutrients from permanent pastures was low, the yields were also low in comparison with
yields of similar pastures in the Piedmont and also of annual grazing crops in the sandhills. The major advantage of the annual grazing system was that green feed was available for grazing throughout much of the year. Notwithstanding the low fertility of the Sandhill soil, the grazing experiments indicated that permanent pastures, with annual crops in a supplementary role, have an important part to play in providing nutrients for dairy cattle in that region.

More intense and efficient utilization of established Bermuda pastures in the Piedmont is possible where surface applications of lime, lime and phosphate, and lime and manure are made. Experiments have shown that such treatments result in marked increases in the yields secured from these pastures. A continuation of the study of pasture establishment, improvement, and utilization suggested that the system of grazing might be an important factor affecting the economy and efficiency of production. However preliminary investigations, in which a continual system of grazing a Bermuda grass pasture was compared with a rotational system, revealed no significant differences in total yields, but the rotational system, did lengthen the grazing season. In general, however, the adoption of the rotational system of grazing does not appear to be advisable for Bermuda grass pastures except perhaps in special cases where weeds are a problem and frequent clipping is necessary.

A second important item affecting the progress of the dairy industry is that of replacing inefficient and unprofitable cows. The adoption of a breeding program to provide better animals to replace the discarded ones seems to be the most promising solution for the dairy farmer. As an aid in this problem, it has been the policy of the South Carolina Experiment Station, in cooperation with the Bureau of Dairy Industry, to lend dairy farmers well bred young bulls from the Guernsey herd at the Sandhill Station. These bulls are the products of a long-time breeding program based on established scientific principles. The use of these bulls has increased the average production of many farm herds in the state.

Equal in importance to the breeding program is the preservation of the health of young stock. A common infectious diarrhea, known as "white scours", reaps a heavy toll of baby dairy calves annually. Control measures heretofore employed have not been satisfactory. During the past year members of the Dairy Department discovered that the use of one of the new chemical compounds, sulfaguanidine, employed in treating diarrhea of infants, was also effective in either preventing or curing "white scours" in calves. A closely related drug, "sulfasuxidine, also proved to have preventive properties. The use of these two drugs promises to become an effective and convenient control measure that will save many well bred calves for future replacement and expansion in dairy herds.

Studies of the economics of agriculture valuable to farmers. Once again a great world war has brought home to farmers the fact that they belong to a world society and that they not only have a responsibility in
what goes on elsewhere but are tremendously affected by it. And so, while much of the work of the experiment Station has been concerned with plants and animals, some attention has been given to the people on the land and the various organizations and institutions through which they make known their collective desires and perform their collective functions. For example, a rather careful study was completed during the year which shows the attitude of farmers themselves to certain public programs and policies instituted in their behalf; another suggests minor shifts in certain farm enterprises which would result in larger returns to farmers; still another reviews some of the "kinks" in the marketing of farm products and outlines suggested remedies; a fourth surveys the state's canning industry as to its adequacy for wartime and peacetime needs and its place in a changing agriculture; and a fifth throws light upon the farmers' tax problem and shows the steps which need to be taken in order to bring about the necessary relief. The results of all these studies are of material and financial benefit to the farmers who will use them, and their value has been considerably increased under the wartime necessity to produce much with little, eliminate waste and inefficiency, and make every dollar count.

Space does not permit a detailed statement concerning each of the several activities which have been mentioned, but published reports may be had upon request. The canning study, however, is typical of the way in which economic and social research has been related to the war effort and may be cited as an example of others. This particular study answers a question asked by the South Carolina Council for Defense as to the adequacy or inadequacy of the canning facilities in this state. The results, covering both commercial and community canneries, show that not only are the present facilities adequate to meet current and early future needs but that many canneries have been operating at such a low percentage of their capacity as to make it almost impossible to realize a profit. Except for this study strategic war materials might have been diverted to the construction of unnecessary commercial canneries to compete with others already constructed and operating at less than 20 percent of their capacity.

The study is important, furthermore, in that it reveals an opportunity for solid and substantial expansion of the canning industry working in cooperation with growers and outlines means to that end. For example, some of the unused canning facilities might be converted to purposes of dehydration which would not only lengthen the season of operation but might provide an outlet for many of the fruits and vegetables which are not readily adapted to the usual canning processes. A complete survey of the possibilities along these lines has not been made, but the technical difficulties involved should not be too great and the supply of raw materials available should be reasonably adequate.

In times like these the social and economic problems of agriculture loom large in the public mind, and farmers, especially, can ill afford to ignore them.
Many experiments conducted on tobacco production. Approximately 85,000 acres are planted annually to tobacco by 25,000 growers in South Carolina. Tobacco ranks second as a money crop in the state, being exceeded in value only by cotton. The average per acre income from tobacco is roughly three times as much as that received from cotton.

Research in tobacco production is centered at the Pee Dee Experiment Station at Florence. The personnel and a part of the equipment for conducting the work are supplied by the U. S. Department of Agriculture.

An important phase of the tobacco research has been the plantbed studies which, in a large measure, were responsible for the development of the paradichlorobenzene method of controlling blue mold. Another result has been to show that the application of 2 pounds per square yard of a standard 4-8-3 fertilizer, under certain seasonal conditions, retarded seed germination and early growth of the plants.

Fertilizer studies to determine the necessary fertilizer elements and the proper form, quantities, and methods of application of fertilizer for the production of quality tobacco are in progress. Tests to date have shown that a liberal application of potash increases both the quality and value of the tobacco. The application of 2½ pounds of boron per acre has produced a definite toxic effect upon the growing plants, and lowered materially the quality of the cured leaf. Better stands and a more uniform tobacco have been obtained when the proper placement of the fertilizer in relation to the plant was made. In the production of high quality flue-cured leaf, it is essential that the nutrition of the plant be carefully controlled and at the same time that the proper physical condition of the soil be maintained.

Crop rotation systems and cultural practices are studied with a view of determining the best practices to follow in order to produce the highest quality tobacco and at the same time control certain diseases and insects pests. Tobacco preceded by horseweed and ragweed results in a definitely better quality of cured leaf, while tobacco following lamb's quarter results in poor quality and reduced yield.

Improvement in and standardization of flue-cured varieties of tobacco is being attempted by means of selection and hybridization. Field tests of strains and varieties followed up by grade analysis and evaluation of the cured leaf, to compare the merits of varieties and strains as to the output of cigarette grades are being made.

Curing studies to determine the adaptability and efficiency of coal and oil burners for curing tobacco are in progress. Efforts are being made to obtain more uniform distribution and better control of temperature and humidity within the curing unit in order to obtain more uniform cures of quality leaf. An electrically heated and equipped barn has been constructed to study the changes which take place during the flue-curing process. The optimum temperature and humidity conditions for best results are determined under controlled conditions and chemical analyses are made to determine changes taking place in the leaf at various stages of the cure. This should furnish information of value to growers.
in setting up and securing optimum conditions for the best cures. Preliminary results have shown that a more desirable lemon color is obtained when the humidity within the barn is lowered as much as possible without setting the color prematurely. This can be accomplished by increasing the temperature or by increasing the amount of drier air that passes through the barn. These studies have also shown that maximum quality cannot be obtained if the tobacco is harvested prematurely or over-ripe.

Tobacco disease studies include the control of diseases through the use of fungicides, cultural practices, rotations, and the development of disease-resistant strains of tobacco. Rotation studies have shown that better nematode (root knot) control has been obtained where tobacco followed crops such as peanuts or oats and weeds. Various insects including June beetles, flea beetles, hornworms, and splitworms attack tobacco and some of them cause considerable losses. Careful studies of these pests are being made and progress in their control is promising.

**PUBLICATIONS**

The following bulletins and reports have been published during the past year:

- Bulletin 335, Cotton Marketing in South Carolina
- Bulletin 336, Inspection and Analysis of Commercial Fertilizers
- Bulletin 337, The Nature and Extent of Farm Tax Delinquency in South Carolina
- Bulletin 338, Farm Management in Newberry County, South Carolina
- Bulletin 339, Attitude of Edgefield County Farmers Toward Farm Practices and Rural Programs
- Bulletin 340, A Farm Business Study of the Six Mile Area of Pickens County, South Carolina, 1940
- Bulletin 341, Textile Materials Used for Household Purposes by Farm Families
- Circular 61, A Survey of Community Canners in South Carolina
- 54th Annual Report of the South Carolina Experiment Station

In addition to these publications, a number of technical papers were published in various professional and technical journals.
Transmitted herewith is the annual report of the Extension Service summarized for inclusion in the report of the Board of Trustees to the Legislature. While this report is mainly for the calendar year 1941, it contains certain progress statements of work projected over into the present calendar year and which will be reported on more fully in the next full annual report.

Respectfully submitted,

D. W. Watkins, Director

County, Community, and Neighborhood Organization

The Clemson College Extension Service, through its years of experience with the agricultural situations of the state, has found that the most effective way to deal directly and expeditiously with the many farm and home economic problems of farm people is through organized effort with the farm people themselves, taking a leading part. This principle has been followed for many years on a scale commensurate with the development of leadership, which has grown constantly with the responsibilities and understanding of the many aspects of the general agricultural program of the state as a whole.

The knowledge and experience thus gained has in more recent years permitted an expansion of the initial phase of county organization to extend to the community and neighborhood groups. In these neighborhood groups, additional leaders are voluntarily making contacts with small groups and individual farmers to encourage their active participation in programs that will inevitably contribute to the agricultural progress of the entire state.

Each of the 46 counties of the state has a county agricultural committee made up of farm people and representatives of all agencies working with farm people. This agricultural committee meets at the call of the county agent to consider programs and problems affecting the agriculture of the county. While these various agency representatives have specific
responsibilities to the respective organizations they represent, the county agricultural committee has a coordinating effect on the various agricultural programs within the counties.

The community and neighborhood organization system, with local leaders, was not set up as a war measure, though through this method the most effective approach to any problem involving farm people is made possible with a minimum of time. Results of a survey of the status of neighborhood and community organization, made during the last week in July, show that substantial progress has been made in all counties in developing the organization of farm and home leadership to meet agriculture's part of the war emergency. Reports from all 46 counties show 889 farm communities organized, with 3,969 community leaders actively engaged in furthering the agricultural program. Of these 3,969 community leaders, 2,559 are men and 1,410 are women. Within these 889 communities, 2,638 neighborhoods have been delineated and 8,159 neighborhood leaders selected, 5,157 of whom are men and 3,002 of whom are women.

The survey further shows that 1,554 of the 2,638 neighborhoods have both men and women neighborhood leaders, and that 5,618 of the 8,159 neighborhood leaders have each been made responsible for a definite list of farm families. The 46 county agricultural committees, each of which is the central and guiding body for the community committees and neighborhood leaders, include (a) 385 agency representatives, 137 of whom are extension workers and 248 of whom are representatives of other agricultural agencies; (b) 1,391 farmer members, 942 of whom are men, and, 449 of whom are farm women; and (c) 17 nonfarmers are members.

The 8,159 neighborhood leaders now serving represent a ratio of one leader to each 13 farm families in the state, not counting many sharecroppers who are nevertheless reached through farm owners. When the organization is complete, according to plans now being followed, this ratio will be one leader to approximately each 10 farm families.

Statewide programs that have been, and are being, handled through county, community, and neighborhood leadership are (1) Food and Feed Production, (2) anti-inflation program, (3) liming program, (4) nutrition, and (5) salvage collection.

The war demands the utmost from agriculture in the production of food, feed, and other products. This means that the 138,000 farms of South Carolina must increase, adjust, and coordinate their production efforts. In addition, farmers will have their individual problems which will be greatly multiplied by shortages and other effects of the war. Not only will this call for hard work and planning, but it will also be necessary that farmers understand wartime needs and situations and that they have all the helpful information and suggestions they can get. Thus, through the county, community, and neighborhood approach, with leaders making individual contacts, every farm family can keep in touch through the Extension Service with the Agricultural College and the United States Department of Agriculture, as well as other sources of information.
Working Relationships with Other Agricultural Agencies

The Extension Service, in cooperation with other agencies, tries to maintain those relationships which serve farm people.

To maintain close cooperative relationships, one effective means has been the joint employment of certain specialists. The agencies cooperating with the Extension Service in the joint employment of one specialist each are: the Tennessee Valley Authority, the Agricultural Adjustment Agency, the Soil Conservation Service, the Rural Electrification Administration, the Bureau of Plant Industry, the Federal-State Shipping-point Inspection Service, the Clark-McNary Forestry work, and the Norris-Doxey Forestry Work.

These joint employees are in a position to keep the county agents fully informed concerning work of the agencies. The county agents, in turn, can help to keep the farm people informed so they may get maximum benefits. This function on the part of the county agent is one of those set forth in the Secretary's memorandum to M. L. Wilson, director of Extension, U. S. D. A., under the date of February 11, 1942.

Another means of maintaining close cooperation with other agencies is to have joint committees to formulate plans and programs. Such joint committees are now serving as between the Extension Service, the Experiment Station, the Soil Conservation Service, the Federal Forestry Service, and the State Forestry Department. These agencies carry out together such field activities as forage schools, forestry demonstrations, pasture tours, etc.

An agreement and working plan with the State Forestry Department was completed last year and is in successful operation.

Better nutrition is being promoted through the State Nutrition Committee composed of various interested agencies and organizations cooperating for this common purpose.

The holding of three district two-day discussion schools in August, 1942, attended by representatives of various agricultural agencies, promoted better understanding and cooperation. The United States Department of Agriculture paid the cost of having the selected national authorities come to the state and lead discussions on such subjects as the parity problem, postwar planning, the labor question, marketing, and the international situation.

An act of Congress last spring stopped the Bureau of Agricultural Economics from engaging in state and county agricultural planning work. This action nullified the agreement entered into between the College and the Bureau of Agricultural Economics under which the Bureau had been cooperating in the agricultural planning work. Of course agricultural planning must go on, and the suggestion is being made that agencies and farm leaders continue and perfect cooperative planning substantially as it has already been organized.

Dairy Development

An example of the effect of a long continued dairy program is in evidence in that area of the state centering around Chester, South Carolina, and including a dozen counties in the lower Piedmont section of
the state. Extension activities along lines of dairy and pasture development started in this region over twenty years ago. Calf clubs were organized and some excellent records made by club members. Guernsey and Jersey cattle sales have been held. Chester county particularly has taken the lead in the production of Guernsey cattle for sale and has attracted national attention. The Chester County Guernsey Club has been instrumental in promoting better cattle breeding throughout that section of the state and beyond.

Largely as a result of the years of work and organization in this area, the Borden milk plant has established a milk evaporating plant at Chester, with the capacity of 100,000 pounds of milk per day, and a milk receiving plant at Newberry, with comparable capacity. Twenty-six milk routes are operated to supply the Chester milk plant. These routes, with four others supplying the milk plant at Shelby, North Carolina, constitute a market outlet for milk to 1,250 farm families. The payments for milk were running at the last pay period at an annual rate of $390,000. These various activities and developments in that area combine to constitute a definite change in the farming system which long has been desired.

Great improvements have been made in the dairy situation in the state recently through encouraging and stimulating the use of better breeding stock and better methods of feeding. The average annual milk production per cow in farms in South Carolina has increased from 273 gallons per cow in 1919 to 420 gallons per cow in 1940, an increase of 147 gallons per cow, or 54 percent. The number of farms reporting milk cows increased from 68,176 in 1930 to 87,730 in 1940, an increase of 19,554 farms, or 29 percent.

Beef Cattle Development

Likewise the number and quality of beef cattle produced on the farms of South Carolina has increased very noticeably in recent years. This gain has been accompanied by greatly enlarged supplies of feedstuffs, such as pastures, grazing crops, and grain, silage, etc.

The number of all cattle on South Carolina farms increased from an average of 271,000 head during the three-year period, 1928-1930, to an average of 357,000 head during the period, 1938-1940, an increase of 86,000 head, or 32 percent. A survey by county agents showed that 1414 purebred beef bulls were in use on South Carolina farms in 1941.

Progress in Peach and Watermelon Work

The state’s peach crop in 1942 was the second largest ever produced, and the facts indicate that the value of this enterprise may exceed five million dollars. The phenomenal growth of this industry from its infancy 20 years ago to its present proportion reflects to a very great extent the influence of the Extension Service in the development of successful production, standardization, and marketing practices. The expected increased annual supply of this fruit will play no small part in the wartime na-
tional food situation. For good health, fresh fruit in abundance is de­sired, and is necessary for the civilian population in order to release to the armed forces adequate supplies of the processed peaches and other fruits in both canned and dried form.

The Extension Service assisted materially in the establishment of a large and modern cannery in Spartanburg county, which operated this season. This demonstration should help show the possibilities of processing a portion of the peach crop and possibly other commodities.

Like peaches, the watermelon crop this year showed much improvement in prices and quality. Better cultural practices and especially standardization practices contributed to the improvement. The watermelon motion picture film made by the Extension Service, with others cooperating, covered production, harvesting, grading, shipping, and marketing practices. Undoubtedly this was a worthwhile aid in bringing about the improvement.

Rural Electrification Progress

During the year prior to America's entry into the war, South Carolina showed one of the highest percentages of increase in electrified farm homes in the United States. According to the Public Service Commission, there were approximately 14,640 miles of rural lines serving approximately 66,340 rural customers on June 30, 1941. This latter figure includes both farm and nonfarm rural customers. It is estimated that approximately 50,000 South Carolina farm families, or about one out of every three, now receive the benefits of electric service.

The rapid expansion of the Rural Electrification Program was due in a large measure to the organization and development of 22 cooperatives. In 1939, there were only 1,853 miles of REA-financed line, most of which were built by the State Authority, while utilities and municipalities had approximately 5,844 miles of line. On June 30, 1941, there were 7,617 miles of REA Co-op line operating, whereas utilities and municipalities had 7,021 miles of line. From June 30, 1940 to June 30, 1941, the number or rural customers in South Carolina receiving electric service increased from 54,905 to 66,340. During this period the number of miles of line in operation increased from 10,892 to 14,640. The development and expansion of this service to farm people in South Carolina has made a large contribution to rural welfare, and promises to be a means of further supplementing farm income through the judicious use of electric motors and equipment.

The Extension Service, through agreement with the Rural Electrification Administration, has a joint employee whose duty it is to coordinate and facilitate the expansion of this service to farm people. South Carolina is the only state in the United States with such an employee connected with the Extension Service.
Marketing Services

For satisfactory results and understanding, the marketing and distribution of farm products requires in every respect as much knowledge and experience on the part of agricultural leaders, and ultimately the farmers themselves, as does the production of the same products.

A failure to appreciate the many complexities of marketing in the same light with production is to overlook the end to which the initial phase of production is directed. These and other sound guiding principles have been adhered to since the original agreement was entered into in 1914 by the Extension Service Federal Division of Markets.

While much remains to be done in marketing, steady progress is being made through the programs underway. Actual assistance is given farmers in production problems, harvesting, standardization, grading, packing, and in organized assistance through which farmers are gaining experience in cooperative activity.

Illustrative of this is the work started by the Extension Service in 1927 to improve hog feeding and marketing in the state. As a starting point, purebred hogs were placed with farmers, feeding demonstrations were conducted, and sanitation practices were improved, all of which contributed to a marketable product acceptable to the trade, which recognizes quality and is willing to pay for it. Demonstration-fed hogs sold in 1927 for an estimated $30,000, while in 1941 the hogs sold through farmer-owned and controlled cooperative associations sold for $1,263,000. Sumter county recently commemorated the sale of its first million dollars worth of hogs sold cooperatively under the leadership of the county agent. Other counties have reached or passed this figure by a substantial margin.

Another example of equal significance in its development is the improvement of cotton through the 5-acre cotton contest.

Surplus Egg Marketing and Distribution

Poultry and eggs affect to some extent the income of more farm people in the state than any other commodity.

Even though South Carolina is considered a deficit poultry-producing state, there is a period of two or three months each spring when farmers have difficulty marketing eggs. This is caused largely by the peak of production in the state at that season. In 1941, emphasis was placed upon further increasing poultry and eggs as a war measure, which resulted in an even larger volume of local eggs in the spring of 1942. Foreseeing the probable marketing difficulty, the Extension Service in cooperation with the Agricultural Marketing Administration worked out satisfactory plans for the purchasing and distribution of surplus eggs. Eggs were collected and graded in communities where surpluses existed, and were received in 10-case lots at Pamplico, Newberry, Greenwood, and Rock Hill. Approximately 5,000 cases of eggs were received at these concentration points and were immediately distributed by the AMA over the state to be used in the school lunch program. As a result of the egg-buying program,
which was based on standarized graded eggs, with a satisfactory guaranteed price, the price of eggs over the entire state was boosted. It has been indicated by the AMA that such a plan will continue in operation; and with such aid by the government during periods of heavy production, it is reasonable to assume that the egg marketing problem in the state can be overcome to a great extent through this program.

Through the efforts of the Extension Service in conducting the National Poultry Improvement Plan in South Carolina, approximately 3,000 pedigreed male birds are now used by farmers supplying eggs to hatcheries. This good breeding stock is being distributed to farmers over the state through the distribution of better quality baby chicks, and will add to the farmers' income.

**Cotton Mattress and Comforter Making**

The cotton mattress and comforter program was conducted in South Carolina by the Extension Service in cooperation with the Agricultural Adjustment Agency. The Extension Service was responsible for the leadership in making the mattresses and comforters, and the AAA was responsible for certifying the applications and having the cotton placed in the counties, based on the number of applications certified. County agents and home demonstrations agents organized 677 mattress-making centers during the two-year period in which mattresses and comforters were made, and obtained the assistance of volunteer leaders. Of these, 2,009 were white men; 7,145 were white women; 4,655, Negro men; and 8,762, Negro women. A total of 198,404 mattresses were made. Of these 78,383 were made by white families; and 120,021, by Negro families. In addition, and as a result of the mattress demonstrations, 6,627 mattresses were made and 2,334 renovated from personally-owned cotton and ticking.

In the comforter program, 38,663 were made. Of these, 13,995 were made by white families; and 24,668, by Negro families.

The job was tremendous but, in spite of all the handicaps, was well worth the effort. Not only did it use surplus cotton and give comfortable beds to many families, but it also enabled county agents and home demonstration agents to reach more farm families and help them along other lines as well.

**Farm Machinery Repair Schools**

The greater part of the iron and steel normally used in the manufacture of farm machinery is now being used to make implements of war. This has made it necessary for farmers generally to use old machinery longer, and to learn more about the care and repair of the machinery they have. The seriousness of what lay ahead, unless farmers took exceptionally good care of farm machinery and equipment, was pointed out by agricultural leaders early in the year. In a series of county meetings in January and February, the extension agricultural engineer presented plans for holding district, county, and community schools, where farmers
and agricultural workers would be taught to repair and adjust farm equipment. More than 10,000 farmers were in attendance at the county meetings.

The message of farm machinery repair, as an aid in the war effort and a protection to agricultural production, was presented to every farmer in the state through either repair schools, circular letters, information cards, newspapers, or by radio. The repair schools were held in cooperation with the vocational agricultural teachers in the different counties.

**Cotton Stalk Destruction As Boll Weevil Control Measure**

For a number of years, the Extension Service has recommended that farmers plow under cotton stalks before frost to aid in the control of boll weevils. A special stalk destruction campaign was put on in the early fall of 1941 to lessen the weevil population going into winter hibernation. Later, county agents made a survey to find out the number of farms and acreage of stalks destroyed according to the practice recommended. Results showed that stalks were destroyed before frost on 58,279 farms which included 528,685 acres. This is significant because it represented approximately 50 percent of the total acreage of cotton planted in the state.

**Increased Camp Facilities**

The recent acquisition by the Clemson College Extension Service of what is now known as “Work Camp 32”, located in Clarendon county, in the Santee-Cooper lake area, adds to the camp facilities available to 4-H club boys and girls and farm people in South Carolina for supervised programs aimed at creating better understanding, cooperation, and wholesome relationships of farm people of the state. This camp has been opened officially and has served several such groups already.

Camp Long, located in Aiken county, has operated as a state-wide camp for a number of years with creditable results, though, because of its limited facilities, it is inadequate to care for all the demands. This summer, between June 1, and September 1, 2,037 farm boys, girls, men, and women were accommodated at Camp Long. The addition of “Camp 32” extends the service and facilities to more farm people and should prove to be valuable acquisition.

**Jasper County Milbank Fund**

In recognition of the work of the Extension Service, and as an expression of confidence in the further development of the agricultural program, Mr. Jeremiah Milbank, absentee landowner of Jasper county, has established a substantial revolving fund to assist in further agricultural development in Jasper county. This fund is designated as the “Milbank Fund for Jasper County Farmers’ Service”, and is being administered by the Extension Service, through the Treasurer’s Office of Clemson College, according to a planned program and budget.
Through correspondence and conferences with Mr. Milbank and his representatives, an understanding was reached in regard to the possibilities and use of the contribution he voluntarily agreed to make. A committee was appointed by the director to study the situation and make recommendations which formed the basis for the program.

The work plan provides for vigorous effort to correct the more basic problems first, such as liming the soil to overcome acidity, development of livestock through establishing pastures and placing of some foundation stock, and conducting other projects suitable to the agriculture of the county. An assistant county agent was employed, with half of his salary and travel to be paid from the Milbank Fund.

**Cotton**

South Carolina farmers have continued to increase their yields of lint cotton per acre, and, at the same time, improve the length of staple and the quality of lint cotton produced. The average yield of lint cotton has increased from an average of 182 pounds per acre for the three-year period, 1928-30, to 322 pounds per acre for the three-year period, 1938-40, an increase of 140 pounds of lint per acre, or 77 percent, during that ten-year period. In only four years since 1927, namely, 1932, 1934, 1938, and 1941, has the yield of lint cotton per acre on South Carolina farms been lower than the yield of the preceding year.

In 1929, only 36.7 percent of the lint cotton produced on the farms of the state was a staple 15/16 inch or longer, while in 1941, a total of 99.6 percent of the crop was of a staple 15/16 inch or longer, and 91 percent of the crop was of one-inch staple or longer.

**Tobacco**

Tobacco yields on South Carolina farms increased from an average of 715 pounds per acre for the three-year period 1928-30 to an average of 922 pounds per acre for the period 1939-41, an increase of 207 pounds per acre, or 29 percent. As a result of improved production and curing practices, the quality of South Carolina tobacco has also shown a remarkable improvement during this period.

**Wheat for Home Use**

The acreage and production of wheat, practically all of which is produced for home use, has increased from an average of 57,000 acres and 702,000 bushels per year, for the three-year period 1928-30, to an average of 223,000 acres and 2,746,000 bushels per year, for the three-year period, 1939-41, an increase in acreage of 166,000 acres, or 291 percent, and an increase in yield of 2,044,000 bushels, or 291 percent. The 1941 wheat crop of 242,000 acres and 3,146,000 bushels was the largest and most widely distributed among farmers of any wheat crop ever grown in South Carolina.
Sweet Potatoes

Since 1935 the production of sweet potatoes has been revived as a cash crop on South Carolina farms. In 1936, twelve cars of improved Porto Rico sweet potatoes were shipped from the state. In 1937, shipments were increased to 137 carlot equivalents; in 1938, to 562; in 1939, to 822; in 1940, to 800; and in 1941, to 900 carlot equivalents.

Peanuts as a Wartime Crop

Farmers in this state have been growing approximately 15,000 acres of peanuts. On the urgent call of the federal government for more oil-producing crops, and specifically for more peanuts in this area, farmers in this state have over 80,000 acres to be harvested this year. Many of these farmers have not previously grown peanuts as a cash crop and only undertook it this year in order to help meet the needs for larger supplies of oils. After learning from the experienced growers, however, and with no lessening of the need for vegetable oils, they will no doubt be called upon again to grow more peanuts in 1943. The Extension Service has assisted through publications, demonstrating homemade peanut pickers, stacking, planting, and in numerous other ways connected with this product.

Victory Gardens and Canning of Fruits and Vegetables

The year 1942 saw more and better gardens, followed by more canning of fruits and vegetables by farm families in this state than in any previous year.

Sugar rationing was handled among farm people by committees of farm people themselves, assisted by the home and farm agents.