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The Agrarian

VOLUME 9  THE CLEMSON AGRICULTURAL COLLEGE  NUMBER 4

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Grains of Opinion —

Federal Aid or More Taxes
By ALAN B. SIBLEY

South Carolina still holds to the idea of maintaining States Rights; that is, little government interference in state affairs. Most of us are opposed to Federal Aid, for we feel that such aid only magnifies socialism.

This problem brings certain responsibilities with it. For instance, if we do not accept Federal Aid to education, then is it not the obligation of the state to offer its school children the same opportunities for education that the increased funds from Federal Aid would provide?

Most of us feel, even though we may not have realized the above obligation, that we are also obligated to future generations to keep the socialism, which Federal Aid might instigate, out of our state. We should be satisfied only if both obligations are fulfilled.

We have two alternatives. First, if the state does not accept Federal Aid, then the state must raise in some way the additional funds that Federal Aid would offer. This may call for an increased efficiency in state administration concerning allocations of funds, a magnification of the present tax system, or the inauguration of a general sales tax. As we realize the squabble over new tax reforms has been going on for some time.

The other alternative would be to accept Federal Aid, but the federal government would only give us the funds and not interfere with our handling of them. Our social standards would be raised without the threat of socialism.

We should decide in the near future which of the two alternatives to advocate, thereby, fulfilling all obligations.

THE COVER

This month's cover shows a montage of the buildings, in the School of Agriculture. Not shown is the Ag. Engineering Building which is now under construction. Cover designed by Staff Photographer Bennett B. Smith.
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CLEMSON MEN ALWAYS WELCOME
How many farmers realize that conservation practices not only save soil but also increase yields and reduce crop production costs? A majority of farm paper editors . . . regional and national . . . answering this question said that nearly 100 percent realize it but, for various reasons, most do not yet practice it.

Here is your challenge as farm leaders of the dawning decade: To transform this apathetic acceptance of soil conservation—wherever you find it—into dynamic guidance of prevailing farm practice. It calls for the fire of youth, the energy of persistent purpose, to overcome habits and wasteful ways.

In this service to agriculture and to America, the farm machinery industry is your ally. For example, Case has consistently promoted the principle that conservation is not something to be done for the farmer but rather to be his own way of farming with his own farm power and implements, at his own discretion and responsibility.

With its 15-foot working width, the Case wide-cut disk harrow gives great capacity with tractors of medium size, such as the Case full 2-plow "SC" shown here with adjustable front axle. Outer sections of this harrow swing on inclined pivots. They can be carried above the middle gangs to go through 12-foot gates, or to gain extra penetration when used as 10½-foot harrow. Angling and straightening "on the go"—by hydraulic control or by rope control powered by its own gangs—makes it easy to cross grassed waterways without cutting and without loss of time. J. I. Case Co., Racine, Wis.
To the Memory of those staunch founders whose courage and wisdom built Clemson, to the faculty members who brought fame and glory to her name this issue is gratefully dedicated . . .
The young farmer who makes his start on the land in 1950 will find that the agricultural situation in South Carolina has changed greatly since his father's time. A sharp decrease in farm population, and the trend to mechanization, electrification, and vastly different crop methods, are some of the factors which have served to change and improve the agricultural outlook in our state.

In 1920, there were 1,072,479 people living on farms in South Carolina; by 1945, this number had decreased to 682,663. Instead of making up two-thirds of our population as 1920, farm people now make up only one-third of it.

In spite of this sharp decrease, the production of crops, livestock, and livestock products have reached and maintained new high levels, as our farmers take advantage of labor-saving devices and new methods of scientific farming.

The rapid mechanization of our farms is shown clearly in the increased use of tractors, as compared to the decline in the use of horses and mules. In 1920, there were 1,304 tractors in use in South Carolina. In 1945 there were 12,477 tractors in use, and farm experts say the 1950 census will probably show that the number has grown to nearly 40,000. On the other hand, the number of horses and mules declined from 297,741 in 1920 to 191,000 in 1945, and will probably go below 150,000 in 1950.

Use of electricity on our farms is also increasing rapidly, and today, over three-fourths of South Carolina farms are electrified. The coming of electricity to the farm means not only a more efficient way of doing the work, but a happier and more comfortable existence for the farm family.

Along with the new emphasis on modern farming has come a corresponding gain in the production of all major crops. The average yield of lint cotton per acre has more than doubled since 1920, and the percentage of cotton 15/16-inch or better has increased from 18½ percent to 38 percent during that time. We have reduced the acreage devoted to cotton by half, while at the same time increasing production. (This fact did not hold true in 1949, however, because of the heavy inroads of the boll weevil and other factors, which cost our cotton farmers approximately $60,000,000.)

Similar increases in average yields have been made in production of tobacco, corn, oats, wheat, and in new income-producing crops like peanuts and soybeans. The latter will soon be a million-dollar crop because of a new shatterproof bean produced by Clemson College which can be harvested successfully. In recent years, South Carolina has taken the lead among states in the shipment of fresh peaches. One South Carolina county ships more fresh peaches than the entire State of Georgia.

Perhaps the most significant development in farming in recent years, and the most encouraging, is that of livestock production. In this activity many experts now see South Carolina's greatest hope for a more prosperous agriculture. The development of year-round pasturing and the increased use of pure-bred stock through artificial insemination make the outlook for livestock production a very hopeful one in this State. It is my prediction that South Carolina will one day become one of the greatest livestock-producing states. Some of the factors which make this possible are: we can graze cattle 12 months out of the year; we can raise three crops a year; our good seasons enable us to support an animal on only one acre, whereas in certain areas of the West, 10 to 25 acres are required to the head; and our mild climate makes it unnecessary to heat cattle barns during the winter months.

(continued on page 32)
IN THE BEGINNING

THE STORY OF THE BIRTH OF CLEMSON COLLEGE

"In the beginning God created the heavens and the earth . . .”

—GENESIS 1: 1.

It is from the earth that is mentioned in the first chapter of the Bible that the farmer seeks to earn his living. In accomplishing this aim the farmer causes the earth to blossom forth; he causes living things to grow. It is for the purpose of helping the farmer to reach his objective of obtaining his livelihood from the soil that Clemson College was originated.

The germ of the idea of establishing colleges to help the farmer better understand agriculture and thus better equip him to obtain and maintain high crop yields began in the fertile minds of a few prominent men in the mid-nineteenth century. As a result of their persistent and determined work toward this goal, a bill was introduced and passed through the United States Congress in 1857. This bill, known as the Morrill Act, was vetoed by President James Buchanan. It was reintroduced, passed by Congress and signed by President Abraham Lincoln on July 2, 1862. Following the Civil War, South Carolina received under this Act a grant of 180,000 acres. As far as can be traced, this land was sold in New York by the legislature of South Carolina, controlled at that time by negroes and carpetbaggers, for about 17 1/2 cents per acre. It is interesting to note that this grant, due to the lack of public lands in South Carolina, was located in Texas in the same general area as the grants which the State of Texas received and on which oil was later discovered.

The South Carolina legislature did, however, set up at Orangeburg Claflin University, a negro institution offering courses in agriculture. At that time there was no white institution teaching agriculture on a college level in South Carolina. On October 5, 1880, the South Carolina College of Agriculture and Mechanics opened its doors in Columbia, S. C. Dr. John M. McBryde received an appointment as professor of agriculture and horticulture of that college in 1882. In October, 1888, the agriculture and mechanical curriculum was added to the courses offered at South Carolina University.

By HARRY LIGHTSEY
Agronomy ’52

It was in the early 1880’s when the revolt of the farmers against the South Carolina aristocrats that were ruling, that the movement was begun to separate the mechanical and agricultural college from the classical atmosphere of South Carolina University. Capt. Ben Tillman played an important part in this movement which he initiated in a speech at a meeting in Bennettsville in 1885 of the South Carolina Agricultural Society. The work of Mr. Tillman came to the attention of Mr. Thomas G. Clemson, former Superintendent of Agriculture of the United States preceding the Civil War, and at that time engaged in farming in upper South Carolina. Mr. Clemson, who had been active in the early movement for land grant colleges, was greatly interested in the prospect of establishing an agricultural college for South Carolina. Mr. Clemson was interested in urging the Pendleton Farmers Society to form a committee to investigate the possibility of South Carolina’s having a separate agricultural college. He served on this committee along with Mr. R. W. Simpson and Mr. W. A. Hayne.

Thomas G. Clemson was born on July 1, 1807, in Philadelphia. In 1823, when he was merely sixteen years old, Thomas Clemson journeyed through England to France, where he entered and graduated from the “School of Mines.” He returned to this country and located in Washington as a mining engineer. It was in Washington that Clemson met and married Anna Marie Calhoun, eldest daughter of John C. Calhoun, then Senator from South Carolina. Mr. Clemson served in the Agriculture Department of the United States until the Civil War. At the beginning of the War, Mr. Clemson, because of his Southern sympathies, resigned his post in Washington and moved south. After the War, Mr. Clemson remained in South Carolina and engaged in farming. Following the death of Mrs. John C. Calhoun, who had inherited her husband’s farm, the Fort Hill Plantation of John C. Calhoun passed into the hands of Mrs. Clemson and Mrs. Guideon Lee. Following the death of Mrs. Lee, the property became legally involved and was
sold at a public sale. Mr. Clemson bid this property in for his wife and bought it for approximately $15,000. When Mrs. Clemson died, she left this property to her husband. Upon his death on April 6, 1885, Thomas G. Clemson left this property of 1814 acres, and $58,539.00 in securities to the State of South Carolina for the establishment of an agricultural college.

In 1889 the General Assembly of South Carolina voted to accept the bequest of Thomas G. Clemson, and after considerable delay, the bill was signed by Governor Richardson. It was in 1890, following the election of Captain Ben Tillman, however, that the legislature laid the foundation for the establishment of the college. In his will, Mr. Clemson had set up the college board of trustees, consisting of seven life members and six members elected by the General Assembly of South Carolina. The first meeting of the board of trustees of Clemson College was held in 1891, and Mr. H. A. Strode was elected first President of Clemson College. The first session of Clemson College began on the 6th day of July, 1893, under the Department of Agriculture. In 1894, courses were offered in agriculture, botany, dairy and horticulture. The first class was graduated from Clemson in 1895. Commencement exercises were held December 13-16, in which 37 men received diplomas. Of this number, fifteen graduated from the school of agriculture.

Following this first graduation, there was a general decline of students enrolling and graduating in agriculture until a low of five men were graduated in agriculture in 1905. Recognizing the potential threat of this decline in students, the South Carolina Legislature passed a bill in 1903 allowing each county as many agricultural scholarships to Clemson College as it had representatives in the legislature. These scholarships increased the number of agricultural students enrolled in Clemson greatly, and in 1908, sixty men from the school of agriculture received diplomas. The Legislature ceased granting these scholarships in the early 1930’s.

In its early years, the school of agriculture, due to limited funds, was greatly handicapped in obtaining a full staff of professors. Following the transfer of the experiment station from South Carolina University to Clemson College, professors were forced to double in work consisting of teaching for the college and research for the experiment station. Because the experiment station was receiving funds from the government, however, a restriction to the effect that experiment station men could not devote time to teaching but must work only on research, was soon enforced; and the experiment station and the college were forced to develop separate staffs. The additional income that the college received from the agricultural scholarships that the State Legislature had granted enabled the college to hire more professors and install more courses. The greatest increase in the general development of the faculty of the school of agriculture of Clemson College, however, took place about 1915, when the staffs of the experiment station and the college were partly recombined. Preceding this, the two bodies had been re-combined administratively.

Since that time, the school of agriculture of Clemson College has developed rapidly, until today it has become one of the foremost agricultural schools in the country. Consisting of a faculty of 51 professors and assistant professors and controlling approximately 30,000 acres of land, the agricultural department now offers nine different major courses in agriculture and one course in vocational agricultural education under the school of education. Twenty-six hundred and fifteen men have graduated in agriculture from Clemson College.

Many of these Clemson graduates have now become prominent and outstanding men in agriculture. Clemson College can number among its agricultural graduates such men as R. F. Poole, President of Clemson College; W. B. Camp, multimillionaire farmer and rancher in California; W. P. Gee, head of Department of Rural School Science at the University of Virginia; J. Funchess, Dean and Director of the School of Agriculture at Auburn; T. Roy Reed, Director of personnel of the U.S. Department of Agriculture; and H. W. Barre, former Head of the Cotton Division of the United States Department of Agriculture.

Thus, by educating such outstanding men as mentioned above and by developing a highly trained and highly efficient staff to better educate and inform the future farmers of South Carolina, and by constantly seeking to develop better methods for high production of agricultural products, Clemson College has, and at present is rendering a great and important service to the State of South Carolina and to the country.
THE LANDS OF CLEMSON

The average student at Clemson and the citizens of this state do not know the acreage of land owned by the college or how these acres were obtained by this institution. This article will endeavor to explain how all of this property was obtained.

In 1869, the General Assembly of South Carolina accepted the bequest of Thomas Green Clemson, which set aside the bulk of the Clemson estate for the founding of a scientific and technical college. It was the desire of Mr. Clemson to give the state of South Carolina enough land to establish a much needed agricultural school. In this will Mr. Clemson left 814 acres of land for the purpose of setting up an agricultural school. This land was so willed that it could not be used for any other purpose. The Board of Trustees in 1894, acting under the authority of the legislature, purchased from the granddaughter of Mr. Clemson the Florida Lee tract of land which consisted of 288 acres. The Board of Trustees have a fee simple title to this Lee tract and in this way the college has been able to obtain the new Clemson Housing Project which includes the eight story hotel building. At various times from 1910 to the present date the college has purchased several tracts of land adjoining other college property, these tracts total 546 acres, so at the present date there is a total of 1,648 acres of land belonging to Clemson College.

From 1893, the year the college was formally opened, until 1912, the farms at Clemson were run with the help of hired labor and at one time convict labor, but in 1912, it was decided that a boy work course should be added. The young men, agricultural students, enlisted in this course were divided into two groups so that one group studied while the other worked on the various college farms.

Each group shifted at the end of one week so the students received both the practical and theoretical views of agriculture. This method did not prove satisfactory and was discontinued in 1913.

By WILLIAM H. CRAVEN, JR.  
Agronomy '50

Prior to 1920, the farm land at Clemson was divided into two parts. The South Carolina Experiment Station operated 150 to 175 acres located just off the campus. The remaining 400 acres of cleared land was operated by the college by a direct appropriation. That portion of land under the supervision of the experiment station was further divided into two parts, known as the Agronomy Experiment Station and the Horticultural Experiment Station.

The portion of land under the supervision of the college was used to produce feeds for livestock, fruits and vegetables for the student body, and cotton as the money crop. At various times this land was under the supervision of the different department heads in the School of Agriculture.

In 1920, a farms department was added to the South Carolina Experiment Station and all of the college lands at Clemson, except the campus proper, were placed under the supervision of the experiment station. The original college farm land was reassigned at this time to the dairy, the animal husbandry, and to the farms departments. The original assignment of land to the agronomy and horticulture departments were kept by these departments.

In 1924, at the request of the animal husbandry and dairy departments, land previously assigned to these departments was assigned to the farms department. In this way the farms department has produced and sold to the various departments of the experiment station such things as hay, corn, silage, and small grains.

In 1940 the federal government leased to the college 30,000 acres of land adjoining the college property. This 30,000 acres of land was obtained by the government from private individuals who were not making a living from their property. This land being classified by the government as sub-marginal, explains why the U.S.A. bought it. After the deeds had been signed by both parties, the former owners were moved off to new areas where they could obtain a better livelihood. Due to the conditions of this land most of it is not being farmed now. At the present time, some of it is being cleared of stumps and trees in an effort to make it productive. This land surrounds the college property on three sides, east, west, and south. The government has leased this land for a period of 99 years with no interest or rent to be paid by the college.

What will happen to the farm lands of Clemson when the Hartwell dam is completed? This is a much discussed question at Clemson. Some say the students will be going to class in boats, but the different departments are searching in an effort to find upland areas which will not be affected by this dam. The departments must do this so that they may continue to provide the much needed information to the farmers of this state. At the present time the farms department is in the process of clearing a 100 acre field which will not be affected by the dam. It is hoped that other fields may be cleared and in a high state of production by the time the Hartwell dam is completed.

EIGHT

THE AGRARIAN
Story of The S. C. Experiment Station

It has been shown that Thomas G. Clemson, founder of Clemson College, was very instrumental in the founding of the Experiment Station through his work for bills which established the Land Grant Colleges and the Department of Agriculture federal government for its operation. It was not until the boll-weevil began to threaten cotton production that our General Assembly began to lend financial support to the work. An appropriation of $25,000 was made in 1920 and increased to $50,000 in 1921. Since 1921, the state appropriations have fluctuated with varying economic and other conditions, and with demands for new types of work, new branch stations, etc. Support by the federal government has been increased considerably through the approval by congress of three additional funds, the Adams, Purnell, and Bankhead-Jones funds. These funds along with the Hatch fund still provide somewhat less than one-half of the support received by the Station. At present, the total expenditures of the Experiment Station and its branches amounts to a little over a million dollars annually.

The growth and progress of the Experiment Station has been dependent largely upon the officers and men connected with it. It is significant to recall at least a few of these men who contributed heavily to the

DR. H. W. BARRE, Former Director. S. C. Experiment Station

(continued on page 30)
THE DEPARTMENTS . . .

Their History and Accomplishments

Ag Economics

By CALVIN C. TAYLOR

Courses pertaining to Agricultural Economics and Rural Sociology have been taught at Clemson since as far back as 1903. Some of these courses were taught in the History Department and others in the Department of Agronomy. The Agricultural Economics Department was officially organized as such in 1926 with Professor W. C. Jensen as acting head. Professor Jensen continued in this capacity until June 1933, at which time the name of the department was changed to Agricultural Economics and Rural Sociology and Dr. G. H. Aull was placed in charge. Dr. Aull has served as Head of the reorganized department since that time except for brief periods of official leave for various temporary assignments. Under his direction, the objective of offering students a curriculum by which they might be trained for general or specialized service in the various branches of Agricultural Economics and Rural Sociology has been pursued with renewed and increasing vigor.

The first class with an Agricultural Economics Major was graduated from Clemson in 1930. There were six men having such majors in this group. Since then, approximately 150 men have received degrees with a major in this department. These men are now engaged in such fields as business, teaching and research. Governmental agencies, farming and farm management, Extension Service, and various others.

At present, the faculty of the Agricultural Economics and Rural Sociology Department consists of seven men. Of these, five hold Ph.D. degrees. The other two have M.S. degrees. These men have had broad background of training and experience. Among the universities represented are Wisconsin, Minnesota, Kentucky, and Berlin. Other colleges represented are Clemson, Colorado, Montana and Iowa. Other colleges include Berea, Berry and Tokyo.

In addition to teaching, the Department of Agricultural Economics and Rural Sociology is also responsible for research in its field. A broad program of research is administered by this department under which many significant research projects have been and are being carried out. In the past 25 years a total of 67 bulletins and 14 circulars have been written and published reporting the results of research by staff members. There are at present some 25 research problems under consideration or study. These include studies in the fields of Farm Organization and Management, Land Economics, Rural Sociology, and Marketing. The department works in close cooperation with other de-

Do you recognize any of these? Shown above is a picture, taken about twenty years ago, of the members of the Ag. Faculty as they appeared then. From left to right the members are: 1st Row: Dr. George M. Armstrong, W. B. Aull (deceased), Dr. F. H. H. Calhoun, J. P. LaMaster, W. G. Crandall, and R. A. McGinty. 2nd Row: Dr. Flood Andrews, Dr. William Mills (deceased), Frank Smith, C. L. Morgan, Dr. G. H. Collins, L. V. Starkey, and B. E. Goodale. Top Row: M. A. Rice, Franklin Sherman (deceased), D. B. Rosenkranz, Thomas L. Ayers, R. R. Ritchie, L. W. Shelley, and Dr. I. W. Duggan (Now Government Farm Credit Administrator.)
departments at Clemson as well as with other experiment stations, research organizations, and governmental agencies. An Agricultural Economist in the Bureau of Agricultural Economics is regularly stationed at Clemson for research coordinated with that of the Agricultural Economics and Rural Sociology Department.

Agronomy Seniors make soil tests

The department also offers a strong program of graduate training. Seven men have received M.S. degrees in Agricultural Economics since September 1946. Eight others are now working toward such degrees in this department. The Agricultural Economics and Rural Sociology Department grows as Clemson grows.

Ag. Engineering

By ROBERT M. PRINCE

A curriculum in Agricultural Engineering was approved for Clemson in 1931. During the first five years, only one professor taught this course. Administration of the curriculum and the budget remained in the Agronomy Department until 1941 when the Board of Trustees established a Department of Agricultural Engineering. From this small beginning the Department has grown quite rapidly, and now, there are 141 students majoring in Agricultural Engineering, and a $250,000 Agricultural Engineering building is now under construction. In 1949, the South Carolina Student Branch of the American Society of Agricultural Engineers, located at Clemson, was given a certificate and cup as the highest award presented by Farm Equipment Institute to student Branches. Clemson is the second college in the South to receive this award.

Since its establishment in 1941, the Department has been headed by Prof. Geo. B. Nutt. The professors are W. N. McAdams and J. B. Richardson, E. B. Rogers, A. W. Snell and L. R. Hamett. In the Experiment Station there are four full-time technicians located at Clemson: G. H. Dunkleberg and W. P. Law, Associate Agricultural Engineers; J. S. Evans, Assistant Agricultural Engineer; and J. K. Park, Agricultural Engineer, U.S.D.A. BPISAE cooperating with the Department. At the Edisto Branch Experiment Station located at Blackville are M. R. Powers and V. K. Quattlebaum, Associate and Assistant Agricultural Engineers respectively. W. A. Balk, Assistant Agricultural Engineer, U.S.D.A. BPISAE, is at the Sandhill Branch Station at Columbia. He is cooperating with Frank Fendley, foreman of the cotton research program at that station.

The Bachelor of Science in Agricultural Engineering Degree has been conferred upon 176 men at Clemson since 1933. These graduates are employed in the fields of farming, research, education, sales, service and manufacturing. The records made by these men have been very outstanding, and up to date the positions for men in this field have been plentiful. Many great advancements have been made along agricultural Engineering lines in a relatively short period of time, and with Clemson’s new Agricultural Engineering building and the present large staff, they look forward to still greater achievements in the future.

Agronomy

By W. W. ALLEN

The Clemson Agronomy Department was organized in 1914, with Dr. J. N. Harper as Head. After becoming Dean, Dr. Harper was succeeded by Professor H. J. Hutcheson, known by all his friends as “Daddy Hutch”, a large scale farmer from Mississippi. Succeeding Professor Hutcheson was C. P. Blackwell, who later went on to Oklahoma A&M. It was during Blackwell’s period of service at Clemson that the Extension Service of the Agronomy Division was part of the changed. In turn, Blackwell was succeeded by Dr. T. S. Buie, a Norris Medal man, now Regional Director of the Soil Conservation Service for the Southeastern Region, with headquarters at Spartanburg.

At present, the Head of the Department is Dr. H. P. Cooper, who received his B.S. degree from Clemson and his advanced degrees from Cornell University. In addition to his position as Head of the Agronomy Department, he is also the Dean of the School of Agriculture and Director of the South Carolina Experiment Station here at Clemson. Dr. Cooper also has the distinction of being Vice-President of the American Society of Agronomy.

Dr. Gilbeart H. Collings is now acting head of the department. He is affectionately known by all Clemson men as “The Lord”. He received his B.S. degree from V.P.I., and his advanced degrees from the University of Illinois and Rutgers University. He has gained distinction for his book, “Commercial Fertilizers”.

Other members of the Agronomy staff include: Jess W. Jones, Champ M. Jones, and R. C. Shelley. All of these professors are Clemson Agronomy graduates.

If a department is to be judged solely by the success and attainment of its graduates, then the Agronomy Department can well be proud of its efforts. To date, over 500 men have graduated in this field. Most of the graduates have gone in...
to general farming, Soil Conservation Service, Agricultural Extension, Experiment Station work, plant breeding, teaching, soil analysis and crop specialist work.

Some have gone on to get advanced degrees, while others have taken positions with commercial concerns; such as fertilizer companies, seedsmen, and manufacturers of food products.

To quote Dr. Collings, the three chief objectives of the Agronomy Department may be stated as follows:

"The Agronomy Department strives first to give all Agronomy majors of our agriculture students a well-rounded education in agronomic subject matter, and it strives to inculcate a love for farming in the minds of these South Carolina boys that will result in a large percent of these men returning to farms in their home communities."

"Finally, Clemson must train a small specialty group equipped to pursue advanced research such as is performed by the South Carolina Station. Progress in agronomic science is almost entirely dependent upon the progress made in agronomic research and agronomic research cannot be expected to be successful if research workers are not well trained. For this reason, the Agronomy Department in 1947 began the instruction of graduate students which leads to the M.S. degree.

Animal Husbandry
By J. K. PRICE

The Animal Husbandry and Dairy Departments were originally under one head. After the first world war, the departments were separated and L. V. Starkey was put in charge of the Animal Husbandry work. He immediately started to improve the pastures and livestock owned by the department. At first a good herd of Duroc-Jersey and Polan China hogs was established. The Berkshire herd that was started a few years later was for many years the best in the United States.

The use of a polled bull and the purchase of a few heifers started a Polled Hereford herd that has constantly grown in numbers and excellence. As a result of the early foundations purchased by Professor Starkey, the department now has approximately two hundred hogs of the Berkshire, Duroc-Jersey, Poland China, Hampshire and Landrace breeds. There are ninety-two pure-bred Polled Hereford and twenty Angus cows in the breeding herds. Hampshire and Dorset sheep are available for class and experimental work.

The department is sadly lacking in office, class room, and laboratory space. In spite of this handicap, the department now has the largest enrollment of any department in the School of Agriculture. Animals from the Clemson herds have made a fine record in competition with the finest animals in the country and have done much to improve the quality of the livestock in South Carolina. Clemson graduates have a fine reputation in the South, and there is an increasing demand for more and more men from year to year. Plans are now under way for construction of a new Animal Science Building which will give the Animal Husbandry Department the facilities it needs so badly to carry on its educational and research programs.

Since the department was organized, Professor Starkey has been assisted by a number of men. A. L. DuRant and E. G. Godby have been active in Animal Husbandry work since 1920. R. R. Ritchie joined the teaching staff at a later date. At the present time, L. V. Starkey is head of the Department and E. G. Godby is Animal Husbandman in the experiment station. R. R. Ritchie, on leave, will rejoin the department in June. J. R. Cook, R. F. Wheeler, and W. C. Godley are on the teaching staff.

Botany
By HANS F. PHILIPPSTHAL

The Botany Department of Clemson since its early days has been a combination department of Botany, Bacteriology, Plant Pathology, and Forestry. The history of the Botany Department in the Experiment Station, however, antedates the founding of Clemson College, since the S. C. Experiment Station was a part of the University of South Carolina for a short time. Dr. G. F. Atkinson was the first Botanist at this Station in 1888-89. Later transferred his activities to Auburn, Ala., and then to Cornell University where he became an outstanding botanist.

Several men of note have been associated with the Department at Clemson. Among them was Clemson’s first botanist and bacteriologist, Dr. A. P. Anderson, who served from 1897 to 1899. During his stay at Clemson, Dr. Anderson discovered the secret of “puffed cereals” while studying the rice smut disease. This discovery was important in the development of breakfast foods and also provided generous royalties for the inventor. He donated funds for the Anderson Fellowship which is awarded each year to aid an outstanding senior in agriculture in his graduate study.

The number of faculty members was generally small; one or two men for the entire department, due to the limited enrollment of the College as a whole. From the year 1930 to 1939, the Department began adding members to the faculty because of the increasing enrollment.

Professor D. B. Rosenkrans (M.S. Wis.) has been a member of the Botany Department since 1917, and is still a full-time teacher.

Full-time teachers now on the staff in addition to Mr. Rosenkrans include:

Dr. J. B. Whitney, Ph.D., Ohio State, began his tenure in September 1946. He teaches Plant Physiology and General Botany.
Dairy

By J. E. CUSHMAN

Clemson's Dairy Department has seen vast developments in the 33 years of its existence. A brief historical review of the department tells us that in 1912, the dairy building that is used today was completed. It was one of the most modern and well-equipped buildings of its kind anywhere in the country at that time. At the same time, a new barn was erected on the dairy farm, which was sufficiently large to accommodate both the experiment station and the college herds.

There wasn't a distinct dairy department, however, until 1917. In the fall of that year, the dairy division, as it was then known, separated from the Animal Husbandry Department. This first Clemson Dairy Division was headed by Professor W. W. Fitzpatrick, a native of Kentucky and a graduate of the University of Kentucky. He came to Clemson in 1941 and worked as the livestock demonstration expert until he became head of the newly-formed dairy division.

In January of 1920, Professor J. P. LaMaster, also a native of Kentucky and a University of Kentucky graduate, came to Clemson with the Extension Service. On October 1, 1920 he succeeded his former classmate, Professor Fitzpatrick, who resigned to accept a position in dairy industry. It has been through Professor LaMaster's untiring efforts that the Dairy Department has become one of the leading dairy departments in the Southern Agricultural Colleges.

The dairy department offers 16 undergraduates courses with a total of 1206 student hours of instruction a year to 417 students. In 1946 Clemson College inaugurated its graduate school, and the dairy department is offering work on this level.

On September 1, 1922 Professor B. E. Goodale came to Clemson from the Iowa State College to take over the direction of the dairy plant work and to teach dairy manufacturing, and his knowledge of every phase of plant work has been invaluable in the development of the department.

The primary objective of the Dairy Department is the education and direction of its students for a successful and useful future in the field of dairying. The dairy department now has the largest staff since its organization. Composing this staff are: G. M. Barnett, Jr., Associate Dairyman; G. W. Brandt, Associate Dairyman; C. C. Brannon, Associate Dairyman; W. M. DuPre, Assistant in Dairying, Herd Manager; B. E. Goodale, Professor of Dairying; Victor Hurst, Associate Dairyman; W. A. King, Professor of Dairying; J. P. LaMaster, Head of Dairy Department; J. T. Lazar, Jr., Assistant Professor of Dairying; and W. M. McKay, Assistant in Dairying.

Due to the present emphasis on dairying and livestock in general, for the diversification of agriculture of South Carolina, it is hoped that a modern building will be constructed in the near future.

Entomology

By ALBERT C. WHITE

Since the opening of Clemson there have been courses in Entomology and Zoology taught, but the records do not show Entomology as a separate division until 1899-1900 when Dr. A. P. Anderson was listed as Instructor in Entomology. He was followed by Charles C. Chambliss, who then was succeeded by Geo. G. Ainslie. Following G. G. Ainslie, A. F. Conradi took over the position, and under him in 1941, the first students in Entomology to graduate at Clemson were awarded their B.S. degrees. Up to the present time one hundred and nineteen men have earned their (continued on page 20)
The Privilege of Service

We of Daniel Construction Company have been privileged to serve Clemson through a succession of projects, including the Sirrine Textile Building, the new Barracks, and now the Tom Littlejohn Homes, the Faculty Apartments and the new Clemson House. All of us at Daniel, especially those who are Clemson graduates, are proud to have played a part in the growth of this institution, yet our pride goes far beyond the satisfaction gained in the mere building of these projects.

Our deepest satisfaction stems from the knowledge that here, in serving Clemson, we are also serving democracy, for only in a country such as ours could such an institution as Clemson exist. Here and in similar institutions throughout our country you have the privilege to study the subjects of your choice, to think freely and independently, to arrive at your own conclusions, to plan ahead for your own life in your own way.

It is this privilege of service to Clemson and to democracy, and the knowledge that we are helping more people to achieve better living, that brings the greatest satisfaction to all of us at Daniel Construction Company.

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THE EXTENSION SERVICE
Its Growth and Achievements

Our present-day extension service in South Carolina is the culmination of many worthwhile efforts in the field of agricultural education. It came into existence prior to 1800, when agricultural societies first came into being and were instrumental in providing public lectures on agricultural topics.

The first of these groups was organized in Georgetown in 1740; another in Charleston in 1785; followed by similar groups at Pendleton in 1815; and Beech Island and Darlington in 1846. By 1843 sixteen agricultural societies had been organized in South Carolina.

Between the close of the Civil War and the enactment of the Smith-Lever Act, several national farm organizations came into being with educational plans in their programs. Among these were the Grange, Farmers Alliance, and the Farmers Union. During this same general period—the 1870’s—Farmers Institutes were developed under the auspices of the State Board of Agriculture and the University of South Carolina. With the establishment of the Clemson Agricultural College in 1863, these societies were taken over by that institution and continued until the passage of the Smith-Lever Act.

In the summer of 1907, Dr. Knapp, one of the nation’s foremost leaders in Farm Demonstration Work, visited this state for the purpose of establishing this work in South Carolina. That fall, J. Phil Campbell, State Agent; two District Agents; and five county agents were appointed. This constituted the nucleus around which extension work has developed in South Carolina. Other early leaders in extension work were active in Dr. Knapp’s time. A. L. Easterling, Supt. of Education of Marlboro County, organized the first boys corn club in South Carolina. The year 1909 witnessed the organization of similar clubs in six other counties with a total state enrollment of 327 members. From this small beginning has grown the present day system of 4-H Clubs.

In February, 1910, Miss Marie Cremer (Mrs. C. H. Seigler) a rural school teacher, in Aiken County, organized a girls tomato club with 22 charter members. Soon afterwards she was placed in charge of this in South Carolina in Bamberg County in 1907, with the appointment of E. P. Jenkins as Farm Demonstration Agent for Negroes.

At the present time organized extension work for Negroes is being conducted in South Carolina by 29 Negro agricultural agents and 27 Negro home demonstration agents. The Negro extension workers are under the immediate supervision of a State Supervisor of Negro Home Demonstration Work for women. These supervisors, with one assistant super-

By T. H. JEFFORDS
Animal Husbandry ‘51

An Extension Service worker is shown giving a group of farmers the latest information on cotton boll-weevil eradication.

MAY 1950
FIFTEEN
AGRICULTURAL STUDENTS WIN AWARDS

At the Annual Scholarship Recognition Day, which was held on May 3 in the College Chapel, a number of awards were presented to students majoring in agriculture. Alan B. Sibley, Chancellor of Alpha Zeta, presided over the presentation of these awards.

The Dansworth Foundation of St. Louis awards fellowships each year to two agricultural students. One of these is given to an outstanding member of the Junior Class majoring in the Animal Science field. The award amounts to $180.00 and provides expenses incident to the attendance of the recipient at a two-weeks summer short course for training in salesmanship at the laboratories of the Ralston Purina Company in St. Louis and also for a two-weeks stay at the American Youth Foundation Leadership Training Camp at Shelby, Michigan. The fellowship for the coming summer was awarded to Winston Hall Sibley, of Greenville, junior in Animal Husbandry.

The second of these Danforth fellowships amounting to $50 was awarded to an outstanding freshman expecting to major in the animal science field. It provides for a two-weeks stay at the Leadership Camp at Shelby, Michigan—the same camp to which the recipient of the Junior award attends. The student receiving this award was Robert E. Farmer, Jr., of Newport, Tenn., freshman in Pre-forestry.

The Sears Roebuck Foundation provides funds each year for a number of scholarships awarded to freshmen students in agriculture on the basis of a competitive examination. A Sophomore scholarship of $200 is also provided by Sears Roebuck Foundation for that student among the winners of Sears Roebuck freshmen scholarships who makes the highest scholastic record during his first year. The winner of this scholarship for the present college year, Robert M. Prince, agricultural engineering major of Lynchburg, S. C., was determined last fall. Mr. Prince was asked to stand so that he and his achievement could be recognized.

Each year the Honorary Agricultural Fraternity of Alpha Zeta gives a prize to the sophomore student in agriculture having the best scholastic record for his college course. The prize this year—a 5-year subscription for the Farm Quarterly, outstanding agricultural publication, was presented to Leonard R. Allen, of King's Creek, S. C.

The Borden Company Foundation of New York City makes available each year a scholarship of $300 to the agricultural student who in addition to his other courses must have taken at least two courses in Dairying, must have completed the junior year, and must have the highest grade point ratio of students in that category. The scholarship for the present year was awarded last fall to Calvin C. Taylor of Mauldin, senior in Dairying. Mr. Taylor was asked to stand so that his achievement could be recognized.

Mrs. C. L. McCaslan of St. Mathews, has established a fund of $1000 to be known as "The Clark Linsay McCaslan Memorial Fund" in memory of her late husband. The income from this fund will be awarded annually to the most deserving student in Agricultural Engineering. This year the income amounting to $25 was presented to Carl
Henry Thomas of Holly Hill, senior student in Agricultural engineering.

The Anderson Fellowship of $350 is awarded by the faculty of the School of Agriculture each year to that member of the graduating class who has the best scholastic record among those desiring to pursue graduate work. The graduate studies may be carried on at Clemson or at another institution, as the recipient desires. The fellowship for the college year 1950-51 was presented to James K. Price, senior in Animal Husbandry, of Gaffney.

POULTRY CLUB EATS CHICKEN

On April 13, the members of the Clemson Poultry Club hustled to the Y.M.C.A. Cabin where they were feted with a meal of their favorite meat. Mr. Harvey Greene of “Seven Oaks Farm” (one time Regimental Executive Officer of the Clemson Corps of Cadets) gave an inspiring talk on the possibilities of the poultry industry in South Carolina, and opportunities for poultry majors in the future.

PHI ETA SIGMA TAPS TWO AG FRESHMEN

Robert Farmer, Pre-Forestry student from Newport, Tenn., and Robert Duke, Animal Husbandry freshman from Kingstree, S. C., have recently been selected for membership in Phi Eta Sigma, honorary fraternity for freshmen who have grade point ratios of at least 7.5.

KAPPA ALPHA SIGMA ELECTS OFFICERS

An election of officers for next year was held during a March meeting of Kappa Alpha Sigma. Those elected were: Fred D. Sease, President; Charles P. Hamer, Vice President; John H. Pitts, III, Secretary; Alan B. Sibley, Treasurer; and Thomas W. Culp, Parliamentarian.

REPRESENTATIVES ATTEND SCIENCE MEET

Attending the meeting of the South Carolina Academy of Science, which was held in Rock Hill on April 22 were Dr. H. P. Cooper, Dean of the School of Agriculture; Dr. G. H. Collings, Professor of Soils; Dr. R. W. Rutledge, Associate Professor of Botany; Dr. J. M. Rush, Professor of Bacteriology; and Dr. J. B. Whitney, Associate Professor of Botany. Two students, Hans F. Phillipsthal, Junior Botany major and George D. Grice, senior majoring in Biology also attended the meeting.

JUDGING TEAM ATTENDS MEET AT L.S.U.

The Clemson Senior Livestock Judging Team composed of F. M. Flowers of Darlington, W. H. Sibley of Greenville, B. C. Patton of Fountain Inn, R. B. Johnson, Jr., of Sumter and G. H. Liebenrood of Mt. Pleasant recently entered the Southeastern Inter-Collegiate Judging Contest which was held at L.S.U., Baton Rouge, La. Prof. J. R. Cook, Associate Professor of Animal Husbandry and Judging Team Coach, also attended the contest with the Judging Team.

Classes of cattle, swine, quarter-horses, and sheep were judged during the meet. F. M. Flowers was 3rd high individual scorer of the contest and B. C. Patton was individual high scorer on the classes of quarter-horses judged.

BLOCK AND BRIDLE CLUB ELECT OFFICERS

At a meeting of the Block and Bridle Club the following men were elected to offices: Winston H. Sibley, President; Frank M. Flowers, Vice President; Robert B. Johnson, Secretary; L. W. Clarke, Treasurer; and C. M. Baldwin, Marshall.
FEDERAL AID TO EDUCATION

Do we want federal aid to education? That is a question currently being asked in political circles.

Our present federal administration is trying every conceivable means to get their hands into the state's functions. Federal aid to education is just one of the many "Fair Deal" schemes they are trying to push off on us. Granted, — it sounds good — the government just gives us money to better equip our schools, and to increase teachers' salaries.

But who will pay for it? You will!!! The South Carolina tax payers will pay a lot more in increased federal taxes than they will receive back in federal aid. After all the government agencies in Washington have taken a bite out of the tax dollar, there will be nothing left but a big government payroll.

At the same time that the government "gives" us money for education, they will give us orders about what will be taught, who will teach, and who will be taught in the schools. Once they have their finger in our school system, there will be no limit to the dictatorial powers they might use.

We must be constantly on guard to defend our states rights against the infringements of the federal government. Remembering this, let's choose our public officials wisely this summer.

A SALUTE

We often underestimate the invaluable services of our state agricultural workers, both with the extension service and the experiment stations.

The men of the experiment stations labor with the intricate problems of science pertaining to agriculture, analyze them, and bring forth solutions which will aid the farmer to produce higher yields and better quality products. They breed and produce better varieties of crops; they study the nutritive requirements of different plants; they study the environmental effects on crops; and they study the diseases and insects which bring disaster to the respective crops.

After the workers of the experiment stations have closely scrutinized the various problems confronting the farmers, they pass the solutions on to the extension service. Here the information is disseminated, edited and sent to the farmers through various publications, extension specialists, and county agents.

Through mutual cooperation between the U.S. Department of Agriculture, the extension service and the experiment stations, these state agencies fight to promote better agricultural practices from planting the seed to harvesting the crop. Though often over worked and under paid, these agricultural workers sacrifice personal advancement to solve the complexities of agriculture and thereby improve the living standards of South Carolina's farmers.

Here at Clemson, the extension service is cramped up in one wing of the agricultural building, which is certainly inadequate space for such an essential organization. The extension service and the experiment station at Clemson is in desperate need for more room. A new building would certainly be money well spent for a great cause.

AG STUDENTS TO SPONSOR FAIR

Next year the students of the School of Agriculture will put on an Ag. Fair, which will be a series of exhibits displayed by the different departments.

The recent Engineering Fair under the able direction of Sam Pettit was a great success. Sam and his associates are to be congratulated on a fine job.

At a recent meeting of the Ag. Council of Club Presidents it was decided to have the fair on Homecoming November 4, 1950. This is subject to approval by the dean.

Alan Sibley, Chancellor of Alpha Zeta, will act as chairman of the fair committee and each club president will supervise the exhibits in his respective department.

To make the fair a real success it will take faculty-student cooperation and a little work from everybody. Let's give the fair a lot of thought this summer and come back to school next fall full of ideas. A few ideas and a little ingenuity is all it will take to put the fair over with a bang. Let's have a good one. What say????
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Department History

(continue from page 13)

B.S. degrees in Entomology, and at this time there are 16 students enrolled in the department. Dr. Frank H. Lathrop became head of the department after Conrad and he was followed by Prof. Franklin Sherman. Prof. Sherman became the head of the department for the 1925-26 term, and retained this position until his death in 1947. Mr. J. A. Burly, Entomologist of the S. C. State Crop Pest Commission, became acting head of the department after Professor Sherman’s death. He acted in this capacity until November 1, 1949, at which date Dr. M. D. Farrar assumed the duties as head of the department. Dr. Farrar came to us from the Crop Protection Institute in Durham, New Hampshire where he worked with the late W. C. O’Kane, founder of the Crop Protection Institute.

At the present time the Entomology teaching staff is comprised of Professor David Dunavan, R. E. Ware, E. H. Warnhoff, Jr., and Morley Lipton.

The members of the experiment station staff are: Dr. James H. Conran, Dr. William F. Chamberlain, Mr. David Dunavan, and Miss Frances McAllister. This group is working on several projects. These include the control of fruit insects, especially those of peach and nuts, and the control of the tomato fruit worm, insects affecting stored grains, the cowpea curluio, and the sweet potato weevil. Also work in the study and improvement of the honey bee is being carried.

Mr. J. A. Burly, Mr. George M. Anderson, Mr. W. H. Purser and Dr. John K. Reed are performing the duties of the Crop Pest Commission. This department is spending much time trying to control or eradicate the white fringe beetle, the sweet potato weevil, and the phony peach disease. Annual inspections are made of nurseries, greenhouses, and apiaries to prevent the introduction and spread of injurious insects or of insect borne diseases.

Horticulture

By W. M. MANNING

Instruction in horticultural subjects at Clemson College began with the first class that entered in 1893 under J. F. C. DuPre, Instructor in Horticulture and Horticultrist for the S. C. Agricultural Experiment Station. The courses then offered were (1) Home Gardening and Truck Farming, (2) Pomology, (3) Viticulture, (4) Floriculture, (5) Canning, and (6) Experimental work. Although the curriculum was very limited in scope, the students were only allotted two hours of lecture and four hours of laboratory instruction per week for one sophomore semester and two hours of lecture for each of the two senior semesters. The following significant statement is descriptive of these early teaching methods: “The student is required to labor and is thereby taught by actual experience.”

Beginning in 1912, all agricultural students studied the same courses (continued on page 22)
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There is a NACO product for every pest, for every plant deficiency. For further information on how these top-quality mixtures can help any farmer get bigger yields, consult your local NACO man, or write to us directly. We are at your service at any time.

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Department History
(continued from page 20)
the first three years. Only during the senior year were students permitted to specialize. Seniors could choose either Agronomy, Botany, Chemistry, Animal Husbandry, Entomology, Veterinary Science or Horticulture; however, all students received diplomas in Agriculture at the completion of their courses. The first diplomas were given in Horticulture (as well as in other then organized departments) at commencement, in 1922. At present eighteen courses are offered, and to date 305 men have graduated in Horticulture.

Originally the department was provided with one T-shaped greenhouse, which is still in use today, a canning house, and a packing house. From time to time these installations have been modernized and new structures added. In 1930 a laboratory class room and two research laboratory rooms were erected. The horticultural laboratory was built in 1940. Two 32 by 100 greenhouses were built in 1947 to be used mainly for student floriculture work.

In 1899, a horticultural building was completed near the present location of the greenhouses. Classes were held in this building until the completion of the present Dairy Building at which time the department was allotted two classrooms and two offices. Finally in 1937, the horticulture department was moved to its present location in Long Hall where it occupies six offices, three classrooms, and one student laboratory with suitable cold storage facilities.

The horticultural orchards and experimental gardens were first located adjacent to the greenhouse area. Due to adverse weather conditions resulting from a poor topographical location, the orchards were subsequently abandoned and by 1916 new grape vineyards and apple, pear, pecan, and peach orchards were established east of the college campus on all sides of the junction of the Greenville-Clemson and Anderson-Clemson highways. Later under the direction of Professor A. M. Musser, present head of the Horticulture Department and head horticulturist of the South Carolina Experiment Station, an extensive orchard was established six miles west of Clemson in Oconee County. These orchards are primarily devoted to instructional and research purposes.

Members of the horticultural staff, working in close cooperation with the S. C. Experiment Station, have done outstanding research in fields involving the breeding, cultivation, nutrition, crop pest control, and harvesting methods of horticultural crops. Several accomplishments of this work includes the selection of a spineless variety of okra, the development of downy mildew resistant cucumbers, two varieties of which are named Palmetto and San tee, the production of new varieties of cayenne and paprika peppers which make possible easier harvesting, and many improved methods of canning and freezing fruits and vegetables. In addition to these contributions, preventive measures for the
Department History
(continued from page 22)
control of blight of apples and certain varieties of apples, formerly a serious threat to the fruit industry, have been perfected.
At present, a program is underway to ascertain the value of applying minor fertilizer elements to fruit and truck crops. This appears to be the answer to many questions concerning nutritional deficiencies on South Carolina farms. The growing interest of Piedmont farmers in Turkish tobacco production is an example of Clemson's efforts to promote new cash crops.

Poultry
By W. T. DERIEUX

Back in the early nineteen hundreds, there was some poultry work at Clemson, but it was not until 1926, when Bernard Baruch gave funds to the college, that the present poultry plant was built on the Anderson highway. Ever since the Poultry Department became separate from the A.H. Department Prof. C. L. Morgan has been its head. The plant now has facilities for 2,000 breeding hens, and 200 breeding turkey hens, and facilities for raising 5,000 or more chickens and 1,000 turkeys.

Short Courses are given to poultrymen and farmers to improve their knowledge of poultry and to further the work of the National Poultry Improvement Plan. The Poultry Department offers courses to students in general poultry, poultry diseases, poultry marketing, poultry feeding, poultry breeding, and incubation.

The present poultry staff consists of C. L. Morgan, Head, who was educated at the University of Kentucky, Iowa State College, and University of Wisconsin; J. B. Cooper, Associate Professor, educated at the University of Kentucky; M. A. Boon, Associate Poultyman, educated at the University of Nebraska; and C. P. Willimon, Assistant in Poultry Husbandry, who graduated from Clemson.

V. A. E.
By Q. A. JOWERS

The Department of Agricultural Education at Clemson College was organized in 1916 by Mr. Verd Peterson, who was made State Supervisor of Vocational Agriculture.

In 1918, Professor W. G. Crandell was appointed to succeed Mr. Peterson as Head of the Agricultural Education Department, and he remained with the department until his retirement in 1946. In 1933, The School of Vocational Education was organized under the leadership of Dean W. H. Washington, and the Department of Vocational Agriculture was transferred to this school from the School of Agriculture.

The Department has expanded from a one-professor department to a five-professor organization, which is now headed by Professor J. B. Monroe. Professor Monroe teaches courses in agricultural education and a graduate course in occupational
(continued on page 26)
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**BLOCK AND BRIDLE HONOR**

**JUDGING TEAM AT BARBECUE**

The Block and Bridle Club held a barbecue supper Friday, May 19, at the YMCA cabin in honor of the freshman and Sophomore Judging Team. Many members of the club contributed to the preparation of the banquet; consequently, the barbecue supper and program were a great success, and all persons attending enjoyed the activities.

Winston H. Sibley, President of the Block and Bridle Club, presided and introduced the speaker of the evening, J. M. Eleazer, Extension Information Specialist of the Agricultural Extension Service. Mr. Eleazer gave a very interesting talk, choosing for his topic, Changes Taking Place in Agriculture.

Several awards and gifts were presented during the proceedings. The Senior Judging Team presented Professor J. R. Cook with a Stetson hat in appreciation of the time he has spent while serving as coach of the team.

J. K. Price, senior of Gaffney, received The Merit Trophy, an award given by the club to the senior in Animal Husbandry who has the best qualifications based on scholarship and contributions to the activities of the club.

Dr. R. F. Poole, President of Clemson, announced the winners of the Freshman and Sophomore Judging Contest. The men receiving the awards were as follows: H. O. Vaigneur, A. W. Leland, J.R. Tolbert, E. Campbell, H. R. Chamblee, and R. D. Wingard.

Faculty members of the Animal Husbandry Department that were present included Professors W. C. Godley, R. F. Wheeler, E. G. Godbey, and J. R. Cook. Coach Frank Howard, Head of the Athletic Department and “Colonel” Cook, College Herdsman, were also present.

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to weed the Esso way!

ESSO WEED KILLER 35 is proving a great help in vegetable farming in eliminating harmful weeds. It is being used effectively on carrots, celery, parsley and parsnips, and is being tested on other crops. Proved by tests at several state farm experimental stations, this product has saved *time* and *work* in cultivation ... produced *large* and *healthy* yields for *great* profits!

**CONSTANT RESEARCH BY ESSO DEVELOPS HIGH-QUALITY PRODUCTS FOR PROFITABLE FARMING**

At one of America's largest and most modern petroleum research centers, Esso engineers and technicians are constantly seeking new ways to make farming easier, better, more profitable. New products and methods are developed and tested in cooperation with state farm experiment stations to meet farming problems.

**AGRICULTURAL STUDENTS** — are offered *free* subscriptions to the regularly published *ESSO FARM NEWS*. Every issue packed with valuable articles and helpful hints on modern farming methods. Write today to: Esso Farm News, 15 West 51st Street, New York 19, N.Y.

**You can depend on**

ESSO FARM PRODUCTS

<table>
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<th>High-quality products for modern farming</th>
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<tr>
<td>Esso Extra Motor Oil</td>
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<td>Esso Extra Gasoline</td>
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<td>Esso Weed Killer 35</td>
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<td>and many other</td>
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<td>Esso Farm Products</td>
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ESSO STANDARD OIL COMPANY
AFFAIRS OF

ALPHA ZETA

At a recent meeting of Alpha Zeta, the National Agricultural Fraternity, the following men were selected to hold offices: Chancellor, Alan B. Sibley, Jr., Agronomy Junior of Greenville; Censor, Hal E. Bland, Agricultural Engineering Senior of Gaffney; Scribe, Robert M. Prince, Agricultural Engineering Junior of Lynchburg; Treasurer, Winston H. Sibley, Animal Husbandry Junior of Greenville; and Chronicler, Wyndham M. Manning, Jr., Horticulture Junior of Columbia. Professor J. B. Cooper of the Poultry Husbandry Department was elected as one of the fraternities' Junior Faculty Advisors. Mr. B. D. Cloaninger, Head of the Fertilizer Inspection and Analysis Department, retired as Senior Advisor, and Professor W. P. Law of the Agricultural Engineering Department will serve as next years Senior Advisor. Professor A. W. Snell also of the Agricultural Engineering Department will continue to serve as Junior Advisor.

ANNUAL BANQUET

Alpha Zeta held its annual banquet on Thursday, May 4, at the Lutheran church. Alan Sibley, Chancellor, introduced Mr. Theo L. Vaughn, a Clemson graduate who was main speaker of the evening. Mr. Vaughn, who is of Anderson, spoke on Job-Opportunities in Agriculture. Mr. Vaughn, a Clemson graduate who spent the earlier part of his career serving with the Clemson Extension Service, recently returned from Central America, where he had been working with the United States Department of Agriculture; consequently, the banquet was somewhat of a “homecoming” to him. The banquet was thoroughly enjoyed by all Alpha Zeta students, faculty members, and all guests present.
Saturday Night Is the BIGGEST NIGHT of the Week!

On Saturday night, the chores are finished a little earlier... second helpings go begging at the supper table... friendly yard lights wink out like sleepy stars as byroads and highways funnel farm families into main street until stores and sidewalks overflow.

The menfolk gather on street corners to speculate on the weather, to brag about their livestock, to swap experiences and trade advice. Farm women track down bargains, and talk over news that will be printed in the next edition of the Weekly Herald. Youngsters splurge their allowances at popcorn stands and ice cream parlors.

Folks use shopping as an excuse for coming to town, but the thing they really look forward to on Saturday night is the community reunion. They delight in meeting old friends and making new ones. They enjoy trading with storekeepers who know their needs as well as their names.

Saturday night in small-town America—with its friendliness, and neighborly helpfulness—is a breath of warmth in a cold, cynical world. No wonder a walk down Main Street renews one’s faith in America and rekindles the hope that we may yet use this Saturday night spirit to bring peace and plenty to mankind.

JOHN DEERE
MOLINE • ILLINOIS
Experiment Station
(continued from page 9)
early progress of the experiment sta-
tion.
Mr. Melton Whitney, outstanding au-
tority in soil science, organizer and
and chief of the Bureau of Soils, was the first active head of the
South Carolina Experiment Station.
The title of Professor of Agriculture
and Vice-Director of the Experiment
Station was given him.
In 1890, when the station was moved
to Clemson College, the president of
the college was officially designa-
ted as director, with Professor J. F.
Duggan as vice-director in charge.

The third man in whom was in-
vested the active responsibility of
the experiment station was Col. J. S.
Newman, who directed the destiny of
the station from 1892 to 1894 and
again from 1898 to 1905. W. L. Mc-
Gee was agriculturist in charge from
1894 to 1897, and W. J. Quick was
vice-director in 1897.
Dr. J. N. Harper was made Direc-
tor in 1905 and held this position un-
til 1916. He was succeeded in April,
1917, by Dr. H. W. Barre. The ex-
periment station is greatly indeb-
ed to the work of these outstanding
men, as well as to their more recent
successors. I mean, of course, Dr. H.
P. Cooper, present Director of the
Station and Mr. R. A. McGinty, the
present Vice-Director.

The S. C. Experiment Station has
been organized in strict accord with
the will of the General Assembly.
The Station is an integral and essen-
tial part of the college. Today there
are twenty divisions; Agricultural
Economics, Agronomy, Agricultural
Engineering, Animal Husbandry,
Botany and Bacteriology, Dairy, En-
tomology, Farm, Home Economics,
Horticulture, Veterinary, Coast Sta-
tion (Summerville), Pee Dee Station
(Florence), Sandhill Station (Colum-
bia), the Truck Station (Charleston),
and the Edisto Station (Blackville).
Also, two regulatory agencies func-
tion as divisions of the Station.
These are The Crop Pest and Seed
Certification Commission and the
Fertilizer Inspection and Analysis
Division.

The work carried on by the Sta-
tion has been invaluable to the state.
There is no way of computing the
monetary value of this work. The
only measure we have is the con-
tinuous rise in the standard of living
in the state through practical educa-
tion of, and direct aid to, the farmer.

It would be impossible to list the
vast range and scope of the experi-
ments carried on by the Station.
Every year a book entitled "The An-
nual Report of the South Carolina
Experiment Station" is published
describing the experiments carried
out the previous year.

Among the more important works
being carried on at the present time
at Clemson, is the work being done
with the new organic insecticides
and fungicides. These materials,
principally Benzene Hexachloride,
DDT, and Chlordane, are very effec-
tive killing agents. However, they
become a problem due to their resi-
idual effect in the soil. These chemi-
cals will remain in the soil after har-
vest and bring about depressed fu-
ture production and give off flavors
to many food crops. The increasing
use of BHC in controlling the boil
weevil emphasizes this, due to the
effect on crops following the cotton.
The Station has shown by experi-
mentation on rats that these com-
pounds are fat soluble and remain
inactive in the body as long as the
animals are fat. However, if the
animals become thin and its fat re-
serve is used up, this toxic material
is liberated into the body. The Sta-
tion is continually learning more
and more about these chemicals and
hopes to be able to overcome these
difficulties.

All of the sub-stations are carry-
ing on experiments with the particu-
lar problems found on the crops and
soils of their regions.

Anyone who cares to investigate
will find that the Station has a job
to do and is doing the job. We at
Clemson have every reason to be-
lieve that even greater progress will
be made in the future and that the
people of South Carolina have every
right to be proud of their Experiment
Station and the men and wom-
en who made it what it is today.

ARMSTRONG TO GIVE
PAPER IN STOCKHOLM

Dr. G. M. Armstrong and wife, Dr.
J. K. Armstrong will present an in-
vitational paper to the International
Botanical Congress which will be
held in Stockholm, Sweden, July
12th through the 20th. The title of
the joint paper will be "The Com-
parison of the Host Relationship of
the American, Egyptian, and Indian
Cotton-wilt Fusaria.

THE AGRARIAN
MM HAY TOOLS GET ALL THE CROP ON TIME—EVERYTIME!! Every modern farmer knows that his hay crop is one of the most important crops on his farm. He knows that timely cutting of that crop is a most important factor in deciding its quality, and therefore its feeding and market value. Care must be taken to avoid cutting too early and also against allowing the crop to stand until full bloom has occurred and the nutrient value has begun to decline. Progressive farmers have learned that when they use MM Hay Tools their crop is cut right, on time, everytime.

MM UNI-MOWER is important to the haying time factor. This mower attaches to any modern tractor equipped with power-take-off. Equipped with a 7-foot cutting bar it cuts up to 35 acres per day. Since the power drive consists of a simple V-belt pulley, the sickle speeds can be easily changed to meet all cutting conditions... no gears to adjust and fewer wearing parts. MM Uni-Mowers are available in pull-behind and side-mounted models... mowers that allow farmers to spend less time in the field... mowers that are ready to cut the crop when it is just right!

MM SIDE-DELIVERY RAKE'S GENTLE HANDLING HELPS RETAIN FOOD VALUE! That's why so many modern farmers prefer this rake. The rolling action of the rake turns the heads into the center of the windrow leaving heavy butt end of the stems out where they will dry faster. Heads and leaves dry slowly and stay on the stem. The whole windrow dries more evenly and in less time, so that hay may be taken up sooner after cutting. Therefore there is less chance of loss by storm, and hay is better because few, if any, of the leaves in which most of the food value is concentrated are lost by breaking or tearing.

MM BAILE-O-MATIC MAKES BALING A ONE-MAN JOB! That's important to farm businessmen who want to save money on their haying jobs. This baler is completely automatic... picks up the hay, slices, and ties it into firm bales with two 14-gauge high-tension steel wires while the hay is under compression. Bales-O-Matic bales are uniform, rectangular, square-cornered, and won't come untied when handling. No loose ends of wire left in the bales or in the field!

MM WINDROWERS CUT CROPS CLEANLY and deposit them in uniform windrows on top of the stubble. Even the finest hay seed crops are handled without injury. All controls are within easy reach of the operator, permitting easy change of cutting height and height of reel "on the go".

Lower Haying Costs!


Farming Trends
(continued from page 5)

The pattern of farming in South Carolina has thus changed materially in the past quarter-century. Our farmers are changing from the traditional cotton-corn system of crop production, which enables them to do a better job of conserving and improving their soils, to develop new sources of income, and to make more efficient, year-round use of farm labor.

Much has been learned in recent years about soils and their conservation and improvement; proper use of fertilizers; improved varieties of crops; methods of planting and cultivation; control of insects, diseases and parasites; breeding and feeding of farm animals; forest management; grading, packing, processing and marketing farm products; the use of labor-saving machinery and equipment, and other improved practices of farm and home management. Prospects are excellent for a continued steady rise in farm income, and for improved standards of living for our farm population.

The young farmer today will do well to take full advantage of every new method as it develops, and to look upon his choice of a career as a business which requires constant study and attention to skilled management.

Extension Service
(continued from page 15)

The Smith-Lever Act, passed by Congress in 1911, provided for the establishment of the Cooperative Extension Service as a part of the Land Grant College System. It provides for the cooperation of federal, state, and county governments with local people in planning, financing, and conducting a system of education in agriculture and home economics among farm people.

The Capper-Ketchum Act, passed by Congress in 1928, gave further support to extension work. The funds provided under this act must be matched by funds within the state before they become available.

A similar act, the Bankhead-Jones Act, passed by Congress in 1935, provided additional funds for the support of extension work. The funds provided under this act do not have to be offset by state funds.

In 1914, the General Assembly enacted a law providing for extension work in South Carolina in cooperation with the federal Smith-Lever Act. In 1929, legislation was enacted providing funds for placing county and home agents in all counties of South Carolina. In 1947, the General Assembly enacted a law providing for an assistant home agent in each county of the state.

Today, Extension Service personnel in the forty-six counties of the state are working untiringly to provide the farm population with help and information in the following fields: Agricultural Economics, Agricultural Engineering, Agronomy, Animal Husbandry, Dairying, Entomology Plant Pathology, Forestry, 4-H club work, Horticulture, Marketing, Poultry, and Home Economics. Information in the above fields is supplied by extension specialists cooperating with the numerous agents of each county.

The South Carolina Agricultural Extension Service is under the skillful direction of President R. F. Poole, Director D. W. Watkins, and Asst. Director T. W. Morgan, and has come a long way since its beginning as a mere group of agricultural societies.
Carloading research cuts shipping costs
by boosting flatcar capacity 1/3

New crosswise loading makes it possible to ship 16 Farmall Cub tractors on a flatcar that used to carry only a dozen. The scale miniature tractors on the model flatcar illustrate conventional loading (at right, below) and the new crosswise method (at left, below) that reduces shipping charges by increasing flatcar capacity one third.

Using a template, like the model in the hands of this IH researcher, two men position tractor wheel blocks before loading. Overhead cranes then quickly lower the tractors into place. It's no longer necessary for acrobatic loaders to crawl around and under closely packed tractors to block the wheels. Fewer men load more tractors. Because tractors loaded crosswise don't roll when trains make sudden stops or switch cars, there is less chance of damage in shipment.

Teamwork between the 250 technicians at IH Manufacturing Research and product engineers and production men in IH factories puts more tractors on a flatcar...more quality into countless parts and assemblies...more value into machines wearing the IH trade mark. Their refusal to "let well enough alone" helps to keep International Harvester at the head of the farm equipment parade.
“Smoke my cigarette, Chesterfield, they’re Milder... much Milder”

Rhonda Fleming

“...THAT’S RIGHT. CHESTERFIELDS ARE Milder. I know that for a fact, because raising tobacco is my business, and Chesterfield buys the best mild, ripe tobacco I grow. Beside that, Chesterfield has been my steady smoke for 11 years.”

C.J. Chilson
PROMINENT TOBACCO FARMER
WYLLIESBURG, VA.

Always Buy CHESTERFIELD
The Best Cigarette for You to Smoke

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