There are plans that I must draw.
Then let this timid hand of mine
Be guided, line for line,
With that steady, certain trueness
Of the Hand that planned
This universe.

There are materials I must choose.
Then let this casual mind of mine
Choose with the wisdom of the Mind
That fixed the substances
Of things like grass and trees
And mountain peaks.

There are decisions I must make.
Then let me make them with that sureness
That divided land and sea,
And day and night, the birds that fly
And beasts that roam the field.

I've a future I must build

There's a determination I must have.
Then let me bind myself unto such things
As principles, and truth, and right
With that same permanence
That holds in their celestial places
The sun, and stars,
And all the heavens' gems.

I've a future I must build.
So, let me build it with such care,
Such tools, such wisdom,
And with such a rugged firmness,
That all the fiercest thrusts
Of host or elements
Cannot destroy it.

Aye, I've a future I must build . . .
Let me rise, then, to the task!

JOHN DEERE • MOLINE, ILLINOIS
THE AGRARIAN

PHILOSOPHY

We, the members of this year’s staff of the Agrarian, realize that we have a difficult and challenging task before us. We hope to keep up the good work of the past editors who have continually built it up to a top publication. It is going to be hard work to improve upon their work. It is evident to us that we can accomplish little or nothing without the support of the students and faculty members in the School of Agriculture. You may say “what can I do to help our publication?” I hope you say our publication because it is your publication. If you would like to help with the Agrarian, we are always in need of interesting articles—articles that will be of some interest and service to stu-

workers in the state. If you have an article you think would be of interest, contact any member of the staff.

What does the new staff plan to accomplish this year and next year? As the editors have done in the past, we want to convey to the readers of this publication the important developments in the ever-enlarging field of agriculture. We want to create more interest and enthusiasm in agriculture among the students by showing them some of the things that are going on right here on the campus.

* * * * *

“Clemesta” is over, and many students might wonder if it was worth the long hours of planning, preparation, and work it required. Although the attendance at “Clemesta” might not have been up to expectations, the School of Agriculture should feel justly proud of the many fine exhibits that were on display. “Clemesta” not only helped to convey to the visitors the idea that agriculture is a science, business, and industry; but it gave our own students in agriculture a feeling of pride in what we have and the accomplishments we have made. It is certainly pleasing to know that the School of Agriculture is definitely on the move this year. Many of our visitors who had the feeling that they knew all about agriculture when they walked into the entrance of the Plant and Animal Science Building were soon to find that agriculture is more than “plowing a mule” or “milking a cow.” “Clemesta” gave the visitors

(Continued on page 16)
SERVING THE FARMERS IN NORTH AND SOUTH CAROLINA SINCE 1906

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CHARLESTON, S. C.  CHARLOTTE, N. C.
The Second Annual Clemson Little International was held on Saturday, April 19, 1958. This event is a livestock showmanship and judging contest sponsored by the Block and Bridle Club in conjunction with the Animal Husbandry Department. The showmanship contest is designed to give each member of the Club experience in fitting and showing different classes of livestock. The judging contest is extended to all F.F.A. and 4-H judging teams in the state, and is designed to give them practice in judging livestock. The judging contest is also open to college students majoring in agriculture who are interested in livestock judging.

The results of these contests ran as follows: First and Second Places in the sheep department were taken by W. C. Weeks, showing a Hampshire ram, and C. A. Segars, with a crossbred lamb. In the swine department, T. N. Rogers, showing a Hampshire gilt, and R. C. Sherard, with a Berkshire gilt were First and Second Place Showman Winners. First and Second Place in the cattle department were T. W. Hayes and H. D. Goforth, both with crossbred fat steers. When the individual champion from each class had been chosen, he competed to become the Grand Champion of the entire Showmanship Contest. W. C. Weeks, showing a Hampshire ram, was named the Grand Champion Showman and T. N. Rogers, showing a Hampshire gilt, was named the Reserve Grand Champion Showman.

All awards and ribbons were presented to the winners by “Miss Little International”, Miss Mary McCallister, a student at Winthrop College, from Fort Mill, S. C. These ribbons were made of leather, being the first time that leather ribbons have ever been given in a contest in the Southeast.

The judges for the Contest were E. W. Cook of Clemson, sheep; Pete Mahler, Chinquapin Farms, Tryon, N. C., swine; and R. C. McCants, Jr., Master Feed and Grain Co., Orangeburg, cattle.

At 1:00 p.m. the F.F.A., the 4-H and the College Freshman Judging Contests were held. The F.F.A. and 4-H Teams competed on team as well as individual basis with the first five individuals receiving leather ribbons and the first two teams receiving cups and plaques. In 4-H competition the Sumter team was the winning team with Bobby Powell taking top honors as high scorer. In the F. F. A. Contest, the J. F. Byrnes team won, and Ronald Knight was high scorer. The college freshmen competed on an individual basis and were awarded keys and ribbons. Jack Martin was high scorer in the Freshman Contest and Walter Pitts was Second Place Winner. Eight classes were judged in the contest, with the F.F.A. and 4-H Team only placing each class, while the College Freshmen placed each class and gave two sets of reasons for their placings.

At 7:00 p.m. the Annual Club Banquet, the last event of the day, was held at the Clemson House. After a fine steak dinner, the Club was addressed by Mr. T. E. Bell of Orangeburg, a Clemson graduate and now Head Buyer for Kingan Packing Company of that city. Mr. Bell spoke on “Changes and Challenges Facing Students Majoring in Animal Husbandry,” and stressed the importance of developing and maintaining quality in the livestock produced in South Carolina. After Mr. Bell’s talk, the awards of the different events of the day and year were made to the members of the Club.

Trays were presented to the Grand Champion and Reserve Grand Champion Showman in the Showmanship Contest. The presentation was made by Professor D. L. Handlin, Faculty Advisor for the Club. The winner and runner-up of the Freshmen Judging Contest were given keys by W. C. Weeks. President Weeks then presented the lovely queen with a silver cup. The Judging Team was presented medals by their coach, D. L. Handlin, and the team in turn gave Mr. Handlin a sterling silver inscribed dish. The top honor given by the Block and Bridle Club, the Merit Trophy Award, was presented to the most outstanding senior, W. C. Weeks, by Dr. R. F. Wheeler, Head of the Animal Husbandry Department.

The program, which ran for the entire day, included the showing of sheep, swine, and cattle. These groups of livestock were divided into classes. The sheep were divided into classes of crossbred lambs and Hampshire rams; the swine were divided into classes of Hampshire gilts and Berkshire gilts; and the cattle were divided into classes of crossbred fat steers, Aberdeen Angus heifers, and Polled Hereford heifers. The culmination of these events for each group of livestock was the crowning of a Grand Champion and Reserve Grand Champion Showman.
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SPARTANBURG and NEWBERRY
In our new and modern agricultural economy in South Carolina, diversification is a must when possible. Bees can be handled by most members of the family, and all phases of beekeeping may be more than an interesting hobby. With proper management, beekeeping can result in a highly profitable enterprise.

The honey bee was introduced into North America in Colonial times. Since then it has been distributed widely across the continent. The German or black bee, the Carniolan or striped bee, the Caucasian, and the Italian or amber bee, are varieties of the same species. The Italian race is most valued by beekeepers. Even more important than the beeswax or the honey produced is the service bees render farmers. Much of the plant world is dependent to a large extent upon the bee for its pollination. South Carolina is a favorable location for beekeeping. The Palmetto state has ample flowering plants which will produce some of the most desirable honey known in the whole country. Some of these plants include the huckleberry, asters, the gums, soybeans, cotton, hairy vetch, the clovers, sour wood, peach and apples; to mention only a few of them. Other conditions favorable for beekeeping in South Carolina are ideal climate and good soil types, as well as the numerous streams and swamps located throughout the state.

The art of beekeeping is not confined to honey production. One may specialize in queen rearing. Another desirable phase of beekeeping is the production of package bees. In fact, the greatest beekeeping area is the South. Recently, many beekeepers have made a specialty of producing royal jelly, and high profits have been realized from this endeavor. Also, not new in the bee business at all, are the producers who rent or hire out their hives to orchard farmers and others who desire bees for pollination of special plants.

Although many recent publications about beekeeping indicate that South Carolina has been increasing percentage wise in the number of colonies of bees, we should stop and think of where we were on the production scale in earlier years. Even the number of hives has been decreasing for the past few years. In 1900 South Carolina had approximately 150,000 colonies of bees compared to about 60,000 colonies in 1954. In 1958 the number of colonies had probably dropped to approximately 58,000, and the number of producers has been on the decline for several years.

In analyzing the situation, one may conclude quickly that the decline is due basically to the small net profit for the beekeepers' efforts. A further analysis, however, may throw a somewhat different light on the subject. The net profit per pound of honey is much less with the producers who are using outdated equipment, and, in general, have a poor knowledge of beekeeping. This fact added to the lack of good advertising has kept many beekeepers in a poor financial status. In other words, the fixed costs involved for the inefficient producer are as great as they are for the efficient producer. This established fixed cost necessitates a much smaller net profit per pound of honey for the inefficient beekeeper.

One other managerial problem which the beekeeper encounters is the practice of feeding bees artificially. The bees live through the winter in the hive, and it is their nature to eat the honey which they have stored in the honeycomb cells during the summer. If excessive amounts of honey were removed from the hives during the harvesting season, however, there is no natural food for the bees. When this situation occurs, the bees must be fed or they will starve. In South Carolina the most critical time requiring close observation of the bees' honey stores is from late March to middle or late April.

(Continued on page 12)
Agricultural Economics
By John L. Williams, Ag. Ec. '59

Our Agricultural Economics display for "Clemesta" was designed to give other people an idea of the subjects we study here at Clemson and the various job opportunities available for Agricultural Economics graduates.

At the center of our display, we had an arch representing a door, and from this arch there was a rotating electrical sign reading, "Welcome to Agricultural Economics." To the left and right of the arch we divided our curriculum into the courses taught in the Department—Agricultural Marketing, Agricultural Policy, Farm Management, Rural Sociology, Agricultural Cooperatives, and Statistics.

Transportation, Storage, Packaging, and Market Research made up the functions of the Marketing display. All of the functions were represented by models except Market Research, which was well illustrated by an improved type of fruit facer. This new facer has been developed as a result of a study made by the Agricultural Economics Department. This improved type facer is designed so that the person doing the facer may have both hands free to select the fruit for the facer, and this greatly reduces the time required to do the job.

Our Agricultural Policy display tried to bring out the fact that the United States must maintain foreign markets for Agricultural products if she plans to maintain and increase the prosperity of Agriculture. The question was also raised as to whether Agriculture is better off with government support or without government support. This is a question that can be debated for many hours by farmers and other people.

A balanced farm program was the theme of the Farm Management display. Every farm in the United States must strive to have a well-balanced farm program if farm families as a whole wish to raise their level of living. If we are to have an efficient, well-balanced farm program, we must have efficient management, keep adequate records, plant recommended varieties, and follow recommended soil conservation practices.

Rural Sociology was very aptly illustrated by pictures showing the various farm and home improvements that one can make to increase the attractiveness of his own farm as well as the community's appearance. We may need to paint the house, repair and paint the mailbox, or replace a fence that is falling down. We can also build a community center so that the farm families will have a place to gather and have socials. Things such as those mentioned above may also increase the value of the community or neighborhood.

Agricultural Cooperatives were represented by a display of a milk cooperative. We tried to point out how a farmer might be able to market his products better through a cooperative. Farmers marketing cooperatively have had by far the greatest influence on market organization and prices. The basic objective of the cooperatives has been to bring greater returns to farmers for the products they sell.

"Should We Have Government Support?" was the theme of this exhibit.

Statistics is a subject we hear much of and come in contact with regularly, yet we know little about it. Our exhibit was designed to show the tools students work with and a few of the things that may be accomplished by statistical methods. One of the tools used most frequently is the calculator, which was displayed with a mannequin standing over it as if he were going to do some calculating.

In ending, I would like to thank all of those who contributed so much of their time and talent to make our Agricultural Economics exhibit a success.
AGRICULTURAL ENGINEERING
James K. Merck, Ag. En

The profession of Agricultural Engineering is usually divided into four major fields as follows: Soil and Water, Farm Structures, Farm Machinery, and Electric Power and Processing. The Agricultural Engineering Clemesta program was arranged with displays on each of the above with special exhibits on Ginning Engineering.

The Soil and Water display, which won the blue ribbon for best individual display in the School of Agriculture, consisted of a model of an ideal farm layout on a large sand table. The proper installation of tile drainage systems, terraces, grassed waterways, and plastic lined ponds were a few of the many engineering features shown. A bit of humor was added by special installations exhibited in the edge of the forest.

On an adjoining table, a person could observe the four ways of installing drain tile. These were classified as Not Permissible, Ordinary, First Class and Concrete Cradle.

The Farm Structures exhibit contained models of two pole-type general purpose farm structures along with a display of split ring connectors. A four hundred pound load was supported by a model truss constructed of southern pine members, 1 1/2 by 1 inch in size. This model truss clearly demonstrated the need for proper design in farm structures.

Exhibits in another important phase of Agricultural Engineering, Electric Power and Processing, included a motor and control test stand and a water pump test stand. Various instruments used in research and teaching were displayed. Included in these was a sixteen point temperature recorder which records the temperature in sixteen predetermined locations at one time.

The Farm Machinery display presented a contrast between old and new machinery. An old hand-operated cotton gin and a modern power driven gin were displayed along with a modern cotton picker. An early model of a cotton-temper, made in York County, South Carolina, was included in the many pieces of farm machinery.

A combine equipped with a corn harvesting attachment was a direct contrast to a replica of Cyrus Hall McCormick's first reaper. Old and new tillage equipment was exhibited on the outside of the building. "Spotlighting" grassland farming were balers.

A special exhibit of Agricultural Engineering that was of interest to many in the cotton belt was the display of Ginning Engineering at Clemson. This display had several cut-a-way views of equipment used in a modern cotton gin and samples of the cotton and trash at each point in the ginning process.

AGRONOMY
By Richard Holstein, Agron. '59

For their exhibit in Clemesta, the Agronomy Club members emphasized the importance of soils, proper fertilization, and improved varieties to South Carolina agriculture.

Among the exhibits was a comparison of the productivity of Common and Coastal Bermuda Grass. The exhibit showed the result of the grass's reaction to irrigation and different amounts of nitrogen. Exhibits of cotton and corn were shown which illustrated the differences in yields due to irrigation. It was found that the gross returns from an acre of cotton increased from $184 per acre to almost $484 per acre with the use of irrigation. Likewise, the yield of corn was increased from 12 bushels per acre to 117 bushels per acre with proper irrigation.

On the soils side an exhibit was presented which showed the geological evolution of soils from their parent material country rock. The soil was then broken down to show the component parts. Nematodes, which may be either helpful or harmful, were shown along with benefits and damages which they cause. Sands, silt and clay were displayed along with the percentages of each which make up common soil types.

Dr. W. B. Boykin and Mr. Ben Eskew were advisors for the club presentation. They were assisted in the planning by Bruce Bates, Robert Stephens, Dewitt Walker, Tom Harmon, Jr., and Dick Holstein.

POULTRY
By Charlie Teal, Poultry '59

For "Clemesta" the Poultry Department showed off the dressing plant from start to finish. The processing plant is considered to be the most modern of all pilot dressing plants in the agricultural colleges of the United States. The dressing plant has a maximum capacity of 1000 birds an hour, and requires 20 persons to operate at full capacity. As the birds are brought by truck to the plant, they are put on the continuous line and are killed with an electric stunning knife. The knife cuts the large blood vessel in the neck and shocks or stuns at the same time. The birds then go to the scald-er with water at 126°F, and this loosens the feathers for the first ricker. This picker picks the main feathers by the action of rubber fin-

(Continued on page 12)
ALPHA ZETA ELECTS NEW MEMBERS

Alpha Zeta is a national organization which proposes to "promote the profession of agriculture; to establish, foster, and develop high standards of scholarship, character, leadership, and a spirit of fellowship among all its members; to create and band together a body of outstanding technical men who by scholarly attainment, a faithful service, and maintenance of ethical ideals and principals have achieved distinction and are capable of honoring achievement in others; to strive for breadth of vision, unity of action and accomplishment of ideals; to commend all worthy deeds, and if fraternal welfare demands, to counsel with its members."

Alpha Zeta members are selected from agricultural students "of high scholarship on the basis of character, leadership, and personality." This semester nine new members were received. They are as follows: Neil H. Anderson, Greenville; Robert B. Dibble, Orangeburg; Thomas S. Harmon, Jr., Lexington; Donald W. Eaddy, Lake City; Elbert D. Porter, Loris; Donald R. Gowan, Inman; Michael Mangum, Spartanburg; John G. Swartzfager, Columbia; and William C. Mills, Blackstock. Dr. Koloman Lehotsky, Forestry Department head, was taken in as an associate member.

Alpha Zeta officers and advisors were elected at the regular meeting on April 14. The officers are as follows:

- States M. McCarter - Chancellor
- Thomas S. Harmon, Jr. - Censor
- Billy R. Abercrombie - Scribe
- H. Todd Arant - Treasurer
- Rufus C. Sherard - Chronicler

L. M. Bauknight, Jr., associate professor of Agricultural Economics, was elected as advisor to serve in the place of Dr. L. D. Malphrus, whose term expired. Other members of the advisory committee are Dr. W. M. Epps, Chairman and Dr. G. R. Craddock.

The National Conclave will be held at the University of Kentucky in September, and Billy R. Abercrombie was elected delegate and States M. McCarter as alternate from the South Carolina Chapter.

Other business consisted of planning for the annual Alpha Zeta banquet to be held May 5th at the Clemson House.

New Alpha Zeta members smile at the informal initiation

F.F.A. ELECTS OFFICERS

The Clemson Collegiate Chapter of the Future Farmers of America recently elected three members to fill those vacancies made by seniors going out to practice teach. The present slate of officers is as follows: Billy Abercrombie, President, from Fountain Inn; Vaughn Carmichael, Vice-President, from Johnstown, Pa.; States McCarter, Treasurer, from Clover; Andrew Cross, Secretary, from Cross; Wayne Mack, Reporter, from North; Hugh Mcclimon, Sentinel, from Greer; and Professor F. E. Kirkley, Advisor. New officers for 1958-59 will be elected at the next meeting.

NEW MEMBERS TAKEN INTO ALPHA TAU ALPHA

Four new members were taken into the Kappa Chapter of Alpha Tau Alpha recently. They were informally initiated the week of April 14, and the formal initiation was held April 18. The students initiated into the chapter were as follows: James D. Stone, junior from Johnsonville; F. Wayne Mack, sophomore from North; Thurman E. Claridy, sophomore from Wampee; and John G. Snowden, sophomore from Lake City.

Alpha Tau Alpha, a National Professional Agricultural Education Fraternity, is an organization on college campuses composed of young men in training to teach Vocational Agriculture. Members are selected on the basis of their scholastic abilities, leadership, and their desire to contribute their utmost to Vocational Agriculture.

THE AGRARIAN
SEMIRIDGE WINS PHI KAPPA PHI AWARD

Gene Stembridge, Clemson College senior in horticulture from Ellijay, Georgia, has received a $250 fellowship of the Phi Kappa Phi honorary scholarship society.

Stembridge was one of only four annual selections by the national committee, with headquarters in Los Angeles. The award, which can be used in any graduate school of his choice, is the first ever won by a Clemson nominee.

Vice-president of the Clemson chapter, Stembridge plans to enter either the University of Maryland or Michigan State University to do graduate work in plant breeding. He also will accept a quarter-time assistantship in research.

At Clemson, he has a grade point ratio of 3.85 (possible 4.0) and topped the junior class academically last year.

The honoree is past editor of The Agrarian, student publication of the School of Agriculture; secretary of the Student Assembly; chairman of the Student Agricultural Council; and chancellor of Alpha Zeta, honorary agricultural fraternity. He also is a member of the Horticulture Club and Phi Eta Sigma, honorary freshman scholastic fraternity.

ARANT AWARDED RALSTON PURINA SCHOLARSHIP

H. Todd Arant, Bowman, has been awarded the annual $500 Ralston Purina Scholarship for incoming Dairy, Animal Husbandry, and Poultry seniors. This was announced by J. D. Sykes, Purina vice-president.

Arant, an animal husbandry student, was selected by the scholarship committee at Clemson for outstanding scholastic standing, leadership, and character.

He is a member of the Block and Bridle Club and Alpha Zeta, honorary agricultural fraternity; candidate for the 1958 Clemson livestock judging team, and an exceptional member of the state 4-H organization. Last fall he represented the Clemson chapter at the International Block and Bridle meeting in Chicago.

The Purina scholarship program is in its fourth year, serving 48 land grant colleges in the United State and three Canadian agricultural colleges.

4-H CLUB ELECTS OFFICERS

The Clemson 4-H Club met April 10 for the purpose of electing officers for next school year. The following men were selected to serve as officers for next year:

President .......... Frank Sutherland
Vice President ...... Curtis Wallace
Secretary .......... H. C. McCord
Treasurer .......... J. H. Griffin
Cor. Sec. .......... Ben Brockington
Publicity Chairman Melvin Rogers
Sergeant-at-Arms .... B. W. Anderson
Faculty Adv. ........ H. O. Vaigneur

Because of lack of time and added responsibilities, Dr. W. A. King resigned as faculty advisor for the club. The members regret that he could not continue to serve in this capacity.

DR. M. D. FARRAR ADDRESSES CONVENTION

Dr. M. D. Farrar, dean of the School of Agriculture at Clemson College, addressed the 23rd annual Chemurgic Convention in Chicago, April 23-24 on "New Crops in South Carolina." Dean Farrar stressed the role of bamboo.

His Chicago appearance followed attendance of the eighth annual convention of the National Institute of Animal Agriculture at Purdue University, Lafayette, Indiana, April 21-22.

ANIMAL HUSBANDRY

On Saturday March 22, 1958, the Clemson College Block and Bridle Club prepared and served their traditional delicious Bar-B-Q to over a 1,000 persons who attended the annual spring intersquad game of the Clemson Tigers.

The Bar-B-Q was prepared by the members of the Block and Bridle Club under the direction of their club president, William Weeks, Animal Husbandry senior from Alto, Georgia, and club advisor Professor Dale Handlin of the Animal Husbandry Department.

HORTICULTURE CLUB ELECTS OFFICERS

The Horticulture Club recently elected officers for the next school year. Those elected were John Howard, President; "Sonny" Rhem, Vice President; Ralph Boatwright, Secretary; and E. C. Chandler, Treasurer.
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Clemson,
South Carolina
The Men Who Guide Us...

By Ashton Phillips

Dr. J. T. Lazar of the Dairy Department is a well-known figure to the agriculture students at Clemson. Dr. Lazar is a native of Florence, South Carolina. He received his bachelor of science degree in Dairying at Clemson College in 1943. During his college years Dr. Lazar was very active in school activities. He was a member of the Pershing Rifles, 4-H Club and the Dairy Club. He served as a Company Executive Officer of his company in his senior year. Dr. Lazar served in the United States Navy from 1943 through 1946 as a lieutenant. After returning from active duty with the Navy, he taught in the Dairy Department for several years. Later, he went to Cornell University and received his Master of Science degree in 1949. Dr. Lazar attended North Carolina State College and received his Ph.D. degree in Dairy Plant Management and Industrial Engineering in the summer of 1953.

Dr. Lazar is playing a very important role in actively guiding our leaders of tomorrow through their college years. He is faculty advisor to the Dairy Club and assistant advisor to the Student Agricultural Council. He was very active in planning the School of Agriculture’s part in our first “Clemesta.” Dr. Lazar is a member of the Fort Hill Presbyterian Church.

Dr. W. B. Boykin

Dr. W. B. S. Boykin is a prominent figure in the Agronomy Department at Clemson College. He is held in high esteem for his instructional ability and interest in all his students. Dr. Boykin hails from Boykin, a small town in Kershaw County, South Carolina. After graduating from Camden High School in 1943, he served with the United States Army for three years. Dr. Boykin received his B.S. degree in Agronomy at Clemson College in 1950. He was active in college activities while at Clemson. He was selected in Who’s Who and was a member of Blue Key. In the School of Agriculture he was a member of Alpha Zeta. He was also a member of Phi Kappa Phi, the honorary fraternity for the entire college.

Dr. Boykin received his Ph.D. degree in Agronomy at the University of Wisconsin in 1954. He returned to Clemson to serve on the faculty—teaching field crops and soils laboratory. At the present time, Dr. Boykin is teaching several Agronomy courses and is also doing research work in Agronomy.

Dr. Boykin is a member of Sigma Xi, Gamma Delta, the American Society of Agronomy, Soil Scientist of America, and the Soil Conservation Society of America. Dr. Boykin is Faculty Advisor to the Student Agricultural Council.

MAY 1958
CLEMESTA—1958
(Continued from page 7)
gers. The conveyor moves the birds to the rotary picker into which the birds drop. This picker picks the smaller feathers and those difficult to remove. At the end of a pre-determined time, the birds are forced out a door at the bottom, at which time a worker re-hangs the birds on the shackles. Any remaining pin feathers are removed by hand. The birds then move to the washer where they are washed in cold water and are brushed down by the rubber fingers. The birds move without stopping through the assembly lines where the entrails, feet, head, and oil sac are removed. An automatic gizzard peeler is operated by one man to remove the lining from the gizzards. The birds are washed and taken off the line and chilled in ice water.

In the foothills of the beautiful Blue Ridge Mountains, you'll find the Clemson House located in a unique setting — right on the campus of Clemson College. Here you will find all of the services of a great metropolitan hotel yet you will be far away from the noise of a large city. And you'll enjoy the beautifully landscaped grounds and the flower beds. The splendid accommodations and the excellent cuisine offered at the Clemson House are combined with warm friendly hospitality and fine service. The Clemson House is a gem among fine hotels, and the rates are almost unbelievably low. All rooms are air conditioned. Four dining rooms and the Tiger Lounge and Coffee Shop. There is swimming, fishing and golf nearby.

FRED L. ZINK, JR., Manager
In East Edge of Clemson, S. C., on U.S. 78, 123 and State 28.

Next to the dressing plant were two rooms of exhibits that were prepared to show Science in Agriculture. The development of the turkey from the egg to the table was shown in an exhibit that showed turkey eggs, poults, and dressed turkeys. The production of Asiatic flu vaccine was demonstrated with the use of 11 day old embryos. Sex linkage was shown by crossing a New Hampshire male and a Delaware female. The eggs were shown hatching out in an incubator with a glass top. All the males turned out to be silver (white) in color and the females turned out to be gold (red) in color. The 2 day old chicks were shown to prove this point.

A sign showed that poultry plays an important part in South Carolina's economy. Poultry ranks 4th in cash income to farmers. A chart showed the many job opportunities for anyone interested in poultry as a career.

Science in poultry feeding was illustrated by having ingredients on a table with the proper amount of each ingredient weighed out accurately for a broiler ration. This exhibit won an honorable mention for the individual exhibits. One nutritional exhibit demonstrated the ef-

(Continued on page 14)

BEEKEEPING
(Continued from page 5)
April. Another important time is during the summer between honey flows, or when there is an extended drought. One of the most common foods for this purpose is granulated sugar. It may be fed loosely, or mixed with equal amounts of water to form a syrup. Another good food is honey of inferior quality mixed with an equal amount of water. If a colony of bees need feeding, they should have at least ten pounds of syrup. If bees cannot be fed adequately, they should not be fed at all.

It is this writer's opinion that South Carolina has a tremendous need for a good additional income source for many farm families. Bee-keeping has the potential of being this kind of enterprise because many members of the family could be operating a bee business when they may be otherwise unoccupied.

Additional information will be furnished by contacting Mr. W. H. Purser, Entomology Department, Clemson College, Clemson, S. C.
ISSAQUEENA - - -
Combination Wildlife Refuge
And Forest Management Area

By Garland Gravely, For. '59

Lake Issaqueena, located a few miles northwest of Clemson, furnishes the name for the Issaqueena Area, a tract of land encompassing the lake and approximately 10,000 acres of surrounding timberland. The lake itself, and the area immediately adjacent to it, was once the site of a very beautiful recreational area, complete with beach, bathhouse, boathouse, and picnic areas around the lake. The boathouse burned shortly before World War II, and the area has since been on a decline. Few people realize that the beauty of the area was upheld by nature, and only recently has any effort been extended to put the recreational facilities and the roads back into shape for the visiting public. The picnic areas are being cleared, and firewood is being supplied to them. The roads are being graded, and a new bridge at the head of the lake to replace the old one that caved in is proposed. It is hoped that in the not-to-distant future, Issaqueena will again gain favor in the eye of the public as a clear, beautiful, and wholesome recreational area for the families of the surrounding communities.

Recreation is not the only aspect being considered. At present, the surrounding forests are being used to provide experimental areas for the forestry students. There are four experimental areas being used to illustrate the different grades of forest thinnings. Another area is being used in an attempt to determine the effect of the relation of the cardinal points to the survival of Arizona Cypress. Still other areas serve as illustrations of the different types of forest stands. All of these areas are utilized extensively by the forestry professors, for the more time the forestry student spends in outdoor laboratories, the better he will be prepared to handle the problems that will confront him in his profession.

The area is also under management by the members of the Forestry Department Staff. Complete and accurate records and maps are kept, and the area is cruised periodically to gather valuable information concerning the growth, volume, and condition of the different forest stands and types.

In addition to the forestry and recreational aspects, there is at present an extensive wildlife management program concerned with the area. It is headed by Dr. Webb, whose offices are here in Clemson. A great deal of work is being put forth on this wildlife project which includes the management of deer and turkey. The two species are the White-tailed Deer (Odocoileus virginianus) and the Eastern Wild Turkey (Meleagris gallopavo). In the next few paragraphs, I will try to give you a few facts on the life and management of the wildlife program.

It is perhaps no exaggeration to say that of all our native mammals, none has played so important a role in the history of America as the deer, and today no other is better known or more widely prized as game. Formerly, nearly half of the United States was covered with forests, and throughout these wooded regions deer were present. The present deer population of the United States numbers more than three and one half million. This is a marked reduction from the original population which Seton estimated to be forty million. During the 1800's deer all but disappeared in many localities in the East, but the last fifty years have seen a sharp reversal of this trend in many sections, though by no means everywhere. Moreover, the great increase in abundance continues at the present moment, due in part to effective conservation policies, to refuges such as Clemson's Issaqueena Area, and to other areas of second-growth hardwoods of various ages. Aided by these factors, the heavy toll taken by hunters annually is balanced and the deer is in no danger of extermination.

A great deal of work has gone into the program to bring the deer population back to its present level. This has been accomplished by various management methods, such as the ones used on the Issaqueena Area, but in some areas, this increase in the deer population has been a detrimental effect to man's welfare, due to the larger herds expanding so rapidly. This results in damaged orchards, damaged crops, and a reduction in forest reproduction.

The following are some of the management techniques used on the Issaqueena Area. The census method used here at Clemson is known as the drive-census method. Basically, the drive-census method is a sampling technique by which the population on any given unit of range is computed by proportions from 100% counts on selected sample plots of known area. These sample units are selected and prepared in advance of the drive. “Counters” are stationed along the boundary on three sides of the sample. Drivers line along the fourth side and proceed abreast of each other along the sample, driving the deer within the sample area ahead of them and eventually outside it. They are counted as they pass out of the area.

When the approximate number of deer in an area is known, it can be determined how intensively the area should be managed to support them. The following are some of the other measures practiced on the Issaqueena Area:

1. The maintenance of existing hardwood cover to furnish a good food supply for the deer. The deer eat the fruit of the older hardwoods, and the leaves and twigs of the young ones.

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The theme of this exhibit was "4-H'ers Learn by Doing"

"CLEMESTA" (Continued from page 12)
fact of adding a small amount of an essential amino acid (the building blocks of protein) to a semi-purified ration resulting in a spectacular growth response using feather meal as a source of protein.

AGRICULTURAL EDUCATION
By F. W. Mack, V.A.E. '59
The primary efforts of V.A.E. is toward teaching all these different facets of agriculture and life. Where in this world is a more important job than that of teaching our boys and girls. Sure we must have businesses, farming, rocketmen, politicians, etc., but these can't "go" if there aren't capable men and women to keep them going. Each year, the most important production process in the United States ends for many on the high school steps as students step out into that larger world. Where is there a more important crop? Yes, teachers should be capable individuals.

In our display we attempted to show the public what and how we train young men to be worthwhile humans in a worthwhile society. We will try to develop leadership in these young men. If you look around you in the School of Agriculture, you can recognize the men who have received training in F.F.A., or other similar organizations in high school. You can surely recognize those who haven't had such training.

ANIMAL HUSBANDRY
By Todd Arant, A.H. '59
At "Clemesta," the Animal Husbandry Department topped all other departments by winning first prize in departmental exhibits. Because of the ever-increasing livestock production, more and more people are becoming interested in this field. The theme of one exhibit was job opportunities in Animal Husbandry.

The Animal Husbandry exhibits featured the advancement that has been made in the livestock industry in the past few years and what we can expect to come in the very near future. It pictured the advancement that is possible through a B.S. degree in the field of Animal Husbandry. We can say that livestock is not a thing of the past but "a thing of the future." All the exhibits were planned and erected by members of the Block and Bridle Club with the help and cooperation of the Animal Husbandry Department.

ISSAQUEENA
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2. The development of food supplies by planting. Feeding plots have been established at different sites around the area. Fescue, Chufers, Ladino and such foods are planted to insure the deer a good food supply.
3. Stray dogs are kept out of the area as much as possible.

The second phase of wildlife management concerns the Eastern Wild Turkey. The first Thanksgiving turkey, now the symbol of America's bountifulness, came from the wild flocks that formerly flourished in many of the forests of the Eastern United States. In relation to former numbers wild turkeys are now at an exceedingly low point. Areas like the one here at Clemson are now aiding in building that population toward its former level.

The census method used for wild turkey varies, the most important one being the complete census where the woods are searched for the turkeys and the individual counted. This cannot be used at Clemson due to its expense and time consumption. The drive census method used for the deer is at the same time used for the turkeys.

The control of hardwoods used for the deer can also be applied to the management of the turkey. Turkey's use the fruits from oak, beech, etc., as food, especially in the winter months.

Food patches are also used for turkey. Fescue, Ladino, and Chufers are planted. You will notice that these are the same foods that are planted for the deer, which saves considerable time and expense in the establishment of the food plots.

From this discussion you may see the wide and varied use of the Issaquena Area. Clemson College is fortunate in having such an area, for many schools have to do without, while others have much smaller areas thirty miles or more from the school. We feel that this area will aid in giving Clemson one of the finest Forestry Schools in the South and possibly lead to the establishment of a four-year course in Wildlife Management.

FOURTEEN

The dairy exhibit showing a model cow, "nature's greatest food factory."

THE AGRARIAN
New Idea No. 400 pull-type parallel bar rake. Tested on the torture track, proved on farms.

GREEN: the color of cash

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There's a big cash difference in feeding costs between fine hay and poor. Quality hay means better feeding, lower production costs for milk and beef. When hay is poor, you must pay more for protein and mineral supplements.

What makes green, leafy, nutrient-rich hay? The sun and the showers have a lot to do with it—and these no farmer can completely control. But the right machines play a vital part, too—and here a man can stack the odds in his favor.

That's the job of NEW IDEA engineers. To help take the gamble out of hay-making. To provide farmers with precision tools that cut, cure and store hay, rich in protein and vitamins, appetizing to livestock.

NEW IDEA mowers, for example. They cut clean on sharp turns, shear easily through the thickest stands. Like all NEW IDEA machines, they're built a little stronger than necessary.

NEW IDEA rakes are designed to turn tender, high-protein leaves into the center of the windrow where they cure away from the searing sun. Hard-to-cure stems are turned outward for faster curing. More of the feed value in the hay gets to the barn and livestock.

Write us for free illustrated literature. The facts, we are sure, will convince you that NEW IDEA helps the farmer "make hay" in more ways than one.
“There are four requisites for a good short story,” explained the English teacher, “brevity, a reference to religion, association with royalty, and an illustration of modesty. Now I will give you thirty minutes to write a short story, remembering what I have told you.

After 10 minutes Jim said he was finished and was told to read his story to the class. He read “My Gawd,” said the countess, ‘take your hand off my knee’.

I call my girl Real Estate because she means a lot to me.

Ali Baba went up to the entrance of the cave and cried, “Open, Sesame!”

And a voice from the cave replied, “Sez who?”

“I’ll teach you to make love to my daughter!”

“I wish you would sir. I’m not making much progress.”

Sailor: “Waiter, bring me some tomato juice for a pickup.”

Waiter: “Yes sir, and what will you have for yourself?”

A woman’s best asset is a man’s imagination.

A female brain is slightly smaller and less complex than the male brain. Her brain is divided into only two parts: (1) dollars and (2) cents.

“What is the penalty for bigamy?”

“Two mothers-in-law.”

Two neighboring sows were talking through the fence. Said the first: “Have you heard from your boy friend lately?”

“No, but I got a litter from him yesterday.”

“May I kiss your hand?”

“What’s the matter, my mouth dirty?”

MY mother said I must not see you anymore,” sighed the young lady.

“O.K.,” grinned the modern youth, “we’ll just sit out on the porch where it’s good and dark.”

Husband (after an hour of furious quarreling): “I only wish you were a man.”

Wife (sweetly): “So do I, darling. I think there should be at least one in every family.”

Diner: “Two eggs please. Don’t fry them a second after white is cooked. Don’t turn them over. Not too much grease. Just a pinch of salt on each. No pepper . . . well, what are you waiting for?”

Waitress: “The hen’s name is Betty. Is that all right sir?”

The local politician was making a speech regarding the type of milk which would be supplied to the school children.

“What this town needs is a supply of clean, wholesome milk, and it’s up to you voters to take the bull by the horns and demand it.”

Perfume salesgirl showing newest brand to the co-ed: “To be frank, I consider it unsportsmanlike—in the same class with dynamiting fish.”

The traveling salesman ran out of gas one evening on a lonely road and asked at the only farm house in sight:

“Can you put me up for the night?”

“I reckon I can,” said the farmer, “If you don’t mind sharing a room with my young son.”

“Good heavens,” gasped the salesman, “I’m in the wrong joke.”

Home town girl: “I just told Tom I never want to see him again.”

Mother: “Why?”

Girl: “I just found out he doesn’t plan to get married—he’s studying for a bachelor’s degree.”

Frosh: “Why did your instructor make you write your name in your books?”

Soph: “To kill the resale value.”

Eugene: “What do you think of my jokes? They’re crisp as a crack-er, aren’t they?”

Barbara: “Yes—and just as dry and crummy.”

Now I lay me down to sleep.

The lecture’s dry, the subject deep.

If he should quit before I wake

Give me a poke for goodness sake.

As one termite said to another,

“This should bring down the house.”

When my girl began acting high hat I asked her to please take off her brassy air. Now she won’t even speak to me. I wonder . . .

“Darling, I have missed you!”

Her voice was full of pain.

And she lifted the revolver

And fired at him again.

AGRICARIN PHILOSOPHY

(Continued from page 1)

a chance to catch up on the progress being made at Clemson.

The exhibits were especially outstanding, showing that much time and effort was spent not only in constructing the exhibits but also in planning and designing them.

In recognition of our first “Clem-esta”, we would like to present a few of the 75 exhibits that were on display. We of the Agrarian staff would like to congratulate the winners this year, and we know the event will grow with the years.

By the time you receive this issue, you will be making plans for an enjoyable summer. Our staff hopes you have a nice vacation, and we will be looking forward to see you return next year with zest to work.

—S. M. M.
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SAVE GRAIN OTHERS LOSE!

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Your first round in a heavy-yield crop proves the new McCormick® No. 151 whopping big from end to end . . . not just another combine with oversized cut. Watch the big platform with "deep-set," 20-inch auger take a cleaner, faster 15-foot bite, even in down and tangled crops. See how even-flow feeding, three-point separation, and opposed-action cleaning add grain-saving capacity to the huge, 37 3/16-inch separator.

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says Bob Cummings. "When it comes to my Winstons, I go right along with the majority," says the famous 'photographer' star of The Bob Cummings Show on NBC. "It's America's favorite filter cigarette — and mine!" To a rich, bright blend of prized tobaccos, Winston adds its own specially designed, pure white filter. The result is an unusually clean, fresh taste — the Winston taste! You'll like it, too!

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