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THE AGRARIAN — published in
November, January, March and May
by the under-graduate students in
the School of Agriculture. Opinions
expressed in this magazine do not
necessarily reflect the policy of
the School of Agriculture or the College.

All correspondence should be ad-
dressed to the AGRARIAN, Clemson
College, Clemson, S. C.

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COVER—An architect's drawing of the proposed
Animal Science Building to be erected at the intersection
of Forest Lane and Jersey Lane across from the
Amphitheatre. These drawings were made by Phelps
H. Bultman, architectural senior of Sumter. For fur-
ther details of building see pages 3 and 4.
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Clemson is once more in the process of taking a great stride in its advancement of the agricultural industry in South Carolina. The Animal Husbandry, Dairy, and Poultry departments have for years been handicapped in providing the necessary leadership for a growing diversified agriculture in S. C., because of the lack of research laboratories and adequate food processing facilities. When the present Dairy building was built in 1913 South Carolina was primarily a cotton and field crops state. In recent years livestock, dairy, and poultry enterprises in this state have been on a continuous and steady increase but the facilities for these departments at the state agricultural college have not increased at anywhere near the same rate.

At a conference on October 1, 1948 consisting of members of the boards of directors and officers from the Association of Practicing Veterinarians of South Carolina and thirteen statewide livestock, and poultry associations a resolution was passed asking for a new animal science building for Clemson and pledging their wholehearted support. The South Carolina Farm Bureau Federation in their December annual meeting also passed resolutions favoring the Animal Science Building and pledging their support, as did the South Carolina Guernsey Cattle Club in their December Board of Directors meeting.

It is rather startling to see a comparison of the values of buildings and equipment available to the Animal Husbandry, Dairy, and Poultry Departments of Clemson and of state agricultural colleges in neighboring southern states. While Clemson has only $349,057.42 invested in buildings and equipment for the three departments, the University of Georgia has $600,000, the University of Florida $666,000, the University of Tennessee $1,273,000 and our sister state college, North Carolina State, has more than six times as much or $2,129,700. This comparison of figures should give some idea of the inadequacy of the animal science departments at Clemson at the present time.

At the October 26, 1948 meeting of the Clemson College Board of Trustees they considered the need for improved facilities in these departments and authorized President R. F. Poole to include in the Clemson College 1949-1950 appropriation requests to the legislature an item of $800,000 for an Animal Science Building.

Through the cooperation of the Architectural Department faculty and senior students an adequate design has been developed for an Animal Science Building. Professors from the three departments met and drew up the requirements in the way of space, etc., and turned

(continued on next page)
these over to the faculty of the Architectural department who organized these requirements into a project for the senior designing class. Upon completion of the designs they were judged separately by the Architectural Department faculty and Animal Husbandry, Dairy, and Poultry departments faculties and the design chosen unanimously by all concerned is the one shown on the preceding page. This design was created by Phelps H. Bultman, Architectural senior of Sumter, S. C., and the finished plans for the building will probably come directly from this design.

The basement floor provides facilities for a pilot locker plant for research in freezing meats, fruits, and vegetables. Included with this will be all the modern equipment found in a commercial freezer locker plant. For the Animal Husbandry department there will be a large student meat laboratory and meat cutting room as well as an adequate research laboratory for meats research. This wing of the basement will contain adequate refrigeration equipment to both chill and freeze meats. Also in the basement will be a poultry dressing laboratory and storage room. The other wing will be devoted to dairy products work and will contain a large retail sales room complete with counter for ice cream sales and a milk bar. Separate rooms will be provided for ice cream manufacture and milk processing as well as a powdered milk room and condensed milk room. By-products such as chocolate milk and buttermilk will be made in a room adjoining the receiving room. Another room will contain churns and printing equipment for butter manufacture.

The first floor will contain the offices and student laboratories for the Dairy Department. In addition to the offices and two student laboratories there will be two class rooms to hold 50 and 36 students respectively. One room will be devoted to A.R. testing and there will also be space for six research laboratories.

The second floor will contain the Animal Husbandry Department offices and three student classrooms, one seating 50 students and the other two 36 students each. This floor will also contain two student laboratories and an auditorium with a seating capacity of 200 plus a balcony on the third floor with a seating capacity of 60.

The third floor has the balcony for the auditorium, two large lecture rooms with seats for 150 each and a class room for 36 men. It also contains 3 student laboratories and offices for all members of the Poultry Department faculty. Each floor will also contain a library for use by the students and faculty.

When this new building is completed, provided the necessary appropriations are obtained from the South Carolina Legislature, Clemson will be in much better position to provide for students and farmers the research and dissemination of information necessary to keep pace with the ever increasing livestock, dairy, and poultry industries.
IRRIGATE PASTURES AND FIELD CROPS?

Clemson Expert Discusses the Additional Possibilities for Irrigation in South Carolina

Should we limit irrigation in South Carolina to truck crops? Most informed people think not but usually express themselves with caution. It is certainly a matter of economics. Factors governing the economics of irrigation are (1) availability of water, (2) amount of equipment necessary, (3) soil fertility, and (4) value of the crop.

The distance of a stream or pond from the field to be irrigated and the shape of the field will influence the amount and size of pipe where irrigation is done by sprinkling. This is illustrated in figures 1 and 2.

The corn and pasture shown in Figure 1 could be irrigated with practically the same amount of equipment that it would take to irrigate the field of corn shown in Figure 2. The cost of an irrigation system for either of the situations illustrated (Figures 1 and 2) would vary with the type of equipment and the shrewdness of the buyer. In addition to the equipment a pond might also be an added expense. If the stream flows at a fairly high volume very little damming would be required. The smaller the stream the larger the reservoir must be up to a size sufficient for four irrigations without refilling. Some streams would require no damming.

The amount of equipment needed also depends upon the length of time it takes to cover a given acreage. Since the majority of irrigation systems used in South Carolina require pumping we are speaking here in terms of sprinkling and pumping. To irrigate 10 acres in 2 days would require a much larger pump and probably more and larger pipe than if the 10 acres were to be irrigated in 5 days. The nature of the crop would be a decisive factor in figuring the number of days it would take to irrigate.

Soil fertility and fertilizing practices will determine the returns from irrigation in no small degree. Moisture and fertilizer is the answer we are seeking. At the present time, many farmers are applying fertilizer to the point that moisture is now one of the main limiting factors holding yields down.

Outside of truck crops, peas, alfalfa, corn, and pastures comprise most of the acreage being irrigated in the state. No cotton, nor small grains, and very little tobacco is irrigated at this time. The need for irrigation is increased by the inability of some crops to withstand dry periods without permanent damage.

Cotton is one of the crops that drought does not harm to any degree. The root system of a plant may not be able to reach moisture once evaporation and percolation over a period of a week has caused moisture to escape from the top layer (2 in. to 4 in.) of the soil. It stands to reason that a shallow rooted crop needs more frequent application of water. Small grains usually receive the necessary rainfall during the winter months but sometimes suffer during the spring. Corn is a shallow rooted crop. Experimental irrigation at Clemson in 1947 by the Agricultural Engineering Department has shown an increase of 20 or more bushels of corn per acre. Alfalfa irrigation has produced significant increases in yields although alfalfa is not a shallow rooted crop. Irrigation has been used to provide annual grazing during periods in which pastures would have suffered for lack of moisture.

Farmers are buying irrigation systems for pastures. In several cases the increases in yields have paid for the system the first year of use. Some are buying systems for truck crops and using them on fields if the need arises. If an irrigation system is to be installed, plans should be made to make full use of it even if it means modifying the cropping practices.

Very few farmers are buying irrigation systems for corn alone. Several have purchased irrigation outfits for pasture and corn, or corn and alfalfa. If a farmer is planning to irrigate a field, he should consider the returns he will receive from irrigation against what the system will cost over a period of about 10 years. The profitability of field crop irrigation comes down to a matter of individual cases with all the factors listed having an influence.

NEWS FROM '48 GRADS

Animal Husbandry

T. C. Cartwright is doing graduate work in animal breeding at Texas A. & M. College at Austin, Texas.

L. F. Cato is Assistant County Agent in Chesterfield County.

J. E. Craig is employed as Farm Management Supervisor in Denver, Colorado.

Ray Fleming is doing statistical work in Columbia.

C. J. Gulledge has chosen farming for his occupation at Sumter.

W. H. Kennick is engaged in farming at Chester.

H. F. Livingston is Assistant County Agent in Dillon County.

H. G. McCall is farming at Clio.
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DEVELOPMENT OF GUERNSEYS IN CHESTER COUNTY

By J. E. CUSHMAN
Dairying, 1949

strangely akin. These facts have been the inspiration for all the people of this Guernsey county to join in neighborhood commemoration of these events — a festive celebration they have pleased to call the Chester County Guernsey Festival which is held each fall in the city of Chester.

History records the early settlement of Chester, Lancaster, and York counties, Pennsylvania, by Scotch and Irish immigrants. Finding the climate there too rigorous for their liking, many of them migrated southward looking for a milder climate and lands suitable to grass and animal husbandry. Some of these migrations came to South Carolina and converged into the territory now known as Chester, Lancaster, and York counties. Soil scientists now refer to this territory as part of the South Carolina "grass belt", a modern tribute to the instinctive judgment of these early pioneers.

Early in 1884, David R. Flenniken of Winnisboro, South Carolina, purchased three purebred Guernsey heifers and a Guernsey bull from S. C. Kent of Westmore, Chester County, Pennsylvania. These four he showed at the Chester County, S. C. Fair in the fall of 1884 where Judge Lyles Glenn, Sr., and his father-in-law, J. C. Hardin, purchased the lot.

Inherently these early pioneers were lovers of livestock. This tradition survived generations of a cash crop economy to take root again virtually with the birth of the heifer calf Carolina Snowdrop. The influence of this purebred Guernsey calf may well have been the spark which kindled the growth of the Guernsey industry in the county, for her son, Scot of Delta, and his daughters were responsible for the first notable sale of Guernsey outside the county to prove that the breeding of these cattle was profitable business. From that date on, Chester County began to be known as a "good source of Guernsey cattle."

Events moved swiftly from 1885 over the next 62 years to establish Chester County in the undisputed position as "The Guernsey Center of Dixie." Importations of purebred Guernseys from Ohio in 1918 and 1919 served as foundation stock for many other breeding herds in the county. The now historic "Scrub Sire Eradication Campaign" of 1925, joined in by farmers and businessmen alike, saw three full car loads of scrub bulls leave the county for the Richmond market. In their places, aristocrats of the Guernsey breed were stationed throughout the county to mark a second milestone in this Guernsey history.

This campaign was followed closely by the formation of the Chester County Guernsey Cattle Club, an active group of Guernsey Breeders which in 1936 held the first of an unbroken series of annual purebred consignment sales in Chester from which foundation breeding stock has gone throughout the Southeast. It was this club which sponsored the organization of the Chester County Guernsey Calf Club in 1926, a continuing band of enthusiasts who have shown winners at fairs throughout the state and the National Grand Champion Guernsey 4-H heifer at the National Dairy Show in 1928.

During the 1920s to this date, annual sales of grade and purebred cattle have averaged between $100,000 and $150,000. In 1937, the first organized group sale of Guernsey Grade A Milk was made in the city of Charlotte. This marketing activity has grown so that in 1947 Chester County Guernsey breeders sold in the vicinity of 6,500,000 pounds of Grade A milk into the Columbia, Sumter, Bishopville, Rose Hill, Chester, and Great Falls markets. Much of this milk is being marketed under the national copyright "Golden Guernsey Milk."

The third most significant event in this march of Guernsey breeding progress was the opening of the large Borden evaporated milk plant in Chester in 1940, with its milk routes extending to all parts of the county and adjacent territory. Thru this system of marketing, 1200 farmers sold 20,000,000 pounds of milk in 1946, which, together with the Grade A milk sold, will have a gross value of $900,000 to $1,000,000.

(continued on page 20)
RURAL ELECTRIFICATION IN THE MARCH OF PROGRESS

By S. P. YOUNG
Agricultural Engineering 1950

With President Franklin D. Roosevelt's Executive Order establishing a Rural Electrification Administration in May, 1935, and Congress' Rural Electrification Act of May, 1936, the path was cleared for the development of an important enterprise — rural electrification.

When electricity for public use appeared as a business, little attention was paid to the rural areas. However, in 1910, alert utility executives, seeing the ready market in these areas for gasoline engines, pressure oil systems, and other such manufactured goods, decided to try to sell the farmer electricity. Their campaign began slowly; as late as 1924, only 2.6 percent of the farms in the United States had central station service. Since, at that time, farmers had to pay for the construction of power lines and also a very high rate for their power, there is little doubt as to the reason for this slow development. There were not enough wealthy farmers in the country at that time who were willing to spend the money needed for the cost of line construction. Thus, a very slow and gradual increase continued until 1935, when President Roosevelt's Executive Order removed the barriers to development of rural electrification service. The project received from this order and the subsequent Rural Electrification Act the necessary impetus for its expansion. Growth of electrification is due largely to R.E.A. because it not only lent money for construction of lines, but stimulated private utilities to build in many areas.

The increase of power lines in our rural areas has brought about a trend toward electrification on the farms of South Carolina. According to Mr. G. H. Stewart, leader of agricultural engineering work, the latest available figures on the actual number of different kinds of electrical equipment on South Carolina farms and other information pertaining to this area as given below. There are 125 electric sweet potato hot beds and 30 electric sweet potato curing houses in the state. Since 1940, the percentage of farms with running water has increased from 3.5 percent to approximately 15 percent. There are 9 barn hay driers, 3 grain drying plants, and 4 community de-hydrators here in South Carolina. 68.9 per cent of the farms have electric service available, and 95 percent of these have radios in the home. Also, there are 4 electric pumping plants for irrigation and 70 freezer locker plants.

R.E.A. is not the only organization supplying power to the 152,275 rural customers in South Carolina. In addition to the 23 R.E.A. cooperatives, there are 10 private utilities, 19 municipalities, and 2 federal projects bringing electric service to the farmers and other rural customers in this state.

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Of land acquired for the building of plants an excess exists beyond the area actually flooded. Wise use of this land is a problem to which the Duke Power Company is giving attention and action. Open lands are being closely studied. Rough, rolling, eroding, and poor lands are being forested. Where land is more suited to farming than to forests, it is being terraced to conserve top soil and put to use under a diversified crop system.

This productive use and improvement of lands that guard our installations is basic and continuous in our job of supplying dependable and economical power.

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EIGHT
MECHANIZATION STRENGTHENS COTTON REGIME

For many years mechanically minded farmers have dreamed of a cotton harvester. And after years of trial and error development these men are beginning to see their dream materialize. During the past decade much research has been done with mechanical cotton har- vester, and now we are beginning to see a few satisfactory designs on the market. The cotton harvester has not reached a state of perfection, but it has advanced to a stage that gives us assurance that perfection is not too far away. The ingenuity of the American farmer has repeatedly been shown throughout the agricultural history of our country, and in the appearance of the mechanical cotton harvester is about to show itself again.

There are certain requirements that a mechanical cotton harvester must have before it will be accept- ed by the cotton producers. It must be able to compete with hand pick- ing in the following ways: it must not damage the fiber of the cotton, it must not gather in too much trash with the lint, it must be of simple design and comparatively easy to operate, it must be adaptable to different soil and topogra- ghic conditions, it must be able to pick about ninety-five percent of the lint, the machine must be versa- tile enough to allow for purchasing economy, and it must be sold by a reputable farm machinery company to be accepted by the public. These requirements are generally true but they will vary somewhat with the locality.

As often happens with farm ma- chines that are comparatively new, occasional changes and refinements in the design of the mechanical cotton harvester to fit certain condi- tions in various parts of the country have been necessary. In fact, these changes, based on more and more field experience, are still be- ing made and the machine that we now have is the product of many years of development.

With the advent of the cotton har- vester, full mechanization has be- come possible. The cotton harvester promises to be a wonderful new labor saver. Dr. George J. Wilds, pres- ident and general manager of Cook estate Pedigreed Seed Company, Hart- sville, South Carolina, says, “The curse of the South has been cheap labor, and to produce cotton profit- ably it has often been impossible to pay a decent wage, especially for picking. The mechanical harvester points to a new and more profitable way of growing cotton. I believe that most of the cotton will be pick- ed mechanically, but in connection with mechanical picking we will have to revise our operating meth- ods very considerably up to harvest. First of all we will have to rea- range our fields to make longer rows and thus reduce turn-around at the ends of rows. Cleaner farm- ing which means better farming, will be very necessary. This will be accomplished by more thorough til- lage and more careful and more fre- quent cultivation so that at time of harvest there won’t be any weeds or grass to bring down the grade of the cotton. I see interesting possi- bilities in flame cultivation to help produce a clean crop. We are also obtaining a cleaner crop both for mechanical and hand picking by the extensive use of aerial defoliation.”

The efficiency of the cotton har- vester depends greatly on the exter- nal structure of the cotton plant. As new strains of cotton are developed and as cotton gins are adjusted to gin cotton that has been mechan- ically picked, the mechanical harves- ter will become more prevalent.
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Fort Valley, Georgia
The Agrarian presents

GEORGE B. NUTT

Professor Nutt, Head of the Agricultural Engineering Department at Clemson College was born August 26, 1908 in Enterprise, Mississippi. He began his educational career by attending Clarke County public schools and graduating from the agricultural high school of the same county.

While attending Mississippi State College, he was employed by the Agricultural Engineering Department. One of his duties as a part-time employee was as a Student Assistant, instructing laboratory courses in farm machinery. During this period at Mississippi State College he was an officer in various clubs which is indicative of the prestige and popularity he held as a student. Some of these clubs were: Agricultural Engineering, Alpha Zeta, Agricultural Club, Y. M. C. A. Cabinet, and many other clubs in which he served as either an officer or as an active member. He received his Bachelor of Science degree in Agricultural Engineering from this college in 1930.

After completing his studies at Mississippi State College, he was employed by International Harvester Company in Chicago, Illinois as a Junior Progressive Employee until September, 1932, after which he came to Clemson. Since 1932 Professor Nutt has been responsible for the agricultural engineering activities of the School of Agriculture and Agricultural Experiment Station at Clemson College except for periods of leave in 1936, 1940, and 1944.

He received his Master of Science degree at Iowa State College in 1940 with a major in farm power machinery.

When he came to Clemson in 1932, Agricultural Engineering was administered by the Department of Agronomy. Professor Nutt held the responsibility of being the only Agricultural Engineer connected with the School of Agriculture until 1936 when an assistant was employed.

In 1938 research was started in the Agricultural Engineering field at Clemson College. The program in research has been widely expanded since that date, a part of which is conducted in cooperation with the United States Department of Agriculture.

It was not until 1941 that the board of trustees established the Department of Agricultural Engineering at Clemson College under its own heading. Although the progress of this department was temporarily disturbed by World War II, it is now larger and is graduating more men than ever before. There have been one hundred and thirty men graduated by this department, sixty-four percent of them reside in South Carolina and ninety-two percent reside in Southern States.

For a period during World War II, Professor Nutt was absent from Clemson College. During this time he was employed in war work as a Senior Agricultural Engineer by the United States Department of Agriculture, Office of Foreign Agricultural Relations. He was in charge of designing and developing equipment for recovering rotenone from the tropical plant, derris. This work required extensive travel in Central and South America.

Professor Nutt says that the trend toward farm mechanization has resulted in rapid expansion of the Agricultural Engineering Department in order to take care of the teaching load and research problems. The staff numbers 10 at Clemson in addition to three men at branch experiment stations.

By S. T. RUSSELL
Agricultural Engineering 1948

The Agricultural Engineering Department has been assigned the responsibility of the harvesting phase of a regional cotton mechanization project which is financed from provisions of the Research and Marketing Act. This work involves the use of commercial harvesters, both spindles and stripper type. The modification of this equipment to meet the requirements of this area is an important factor; however, the problem of weed control ranks among the top problems. Professor Nutt is chairman of the executive committee for this project. He said that the work completed to this date shows that cotton can be grown and harvested successfully with power machinery.

In 1947 the South Carolina legislature appropriated $250,000 for the construction of an Agricultural Engineering building. The preliminary plans for this building has already been completed and the final plans will be completed in the near future.

The man who pulls the trigger on the gun receives all the credit, but the man who loads the gun with the proper ingredients is truly our hero. Professor Nutt loads the gun for the Agricultural Engineering Department. Our hats are off to the man who loads the gun for he is the "backbone" of this striving and progressing department.
**BETWEEN THE**

**Young Attends Meet**

Parker Young, agricultural engineering major of Dalzell, represented the South Carolina Chapter of Alpha Zeta at the biennial conclave held in Washington December 29, 1948 through January 1, 1949.

The business of the convention was carried on through various committees. These committees formulated plans after which they were submitted by the chairman to the group to be voted upon and accepted or rejected. Parker served as chairman of the National Objective and Activities Committee.

Two of the founders of Alpha Zeta, John F. Cunningham and Charles W. Burkett were present at the conclave and made addresses. They were very helpful in carrying out the business of the Fraternity.

In a contest held to judge the best history submitted from the different chapters the South Carolina Chapter was awarded eighth place.

**Alpha Tau Alpha Has Feed**

Stiles C. Stribling, agricultural editor for the S. C. Extension Service at Clemson, was guest speaker at the biannual steak supper of Clemson's Kappa Chapter of Alpha Tau Alpha recently at Walhalla. Thirty members and their guests were present for the occasion.

Stribling was introduced by the president, Bud Rallings, who gave a brief history of the speaker's career. Mr. Stribling came to Clemson in his present capacity after serving as county agent for Cherokee county for some thirty years.

The speaker stressed the need for qualified men in the profession to transport information to the farmers and interested people. He also stated that the graduates in Vocational Agricultural Education had an excellent opportunity to serve in that capacity.

**D. L. Johnston Elected to Head F.F.A.**

D. L. Johnston was recently elected President of the Clemson College Chapter of Future Farmers of America replacing L. D. Reynolds. Johnston, from Windsor, S. C., is a senior in vocational agriculture education at Clemson.

Others elected to assist Johnston are: T. A. Hyder, vocational agriculture education junior of Campobello, S. C., Vice-President; Ed Hucks, Jr., of Aynor, S. C., Secretary; T. E. Johnston of Moncks Corner, S. C., Treasurer; J. A. Neves of Taylors, S. C., reporter.

**Dr. Aull Attended Ag Meeting at Raleigh**

Dr. G. H. Aull, head of the Department of Agricultural Economics at Clemson College, attended during the week of January 2-7 a very important meeting of the executive and advisory group in connection with the regional research project to study economic losses in marketing Irish potatoes.

At this meeting the members discussed last season's progress and made some interesting plans for next Irish potato season. A group of field workers are supposed to begin work in Dade County, Florida, in February and move north during the potato-season thru Alabama, South Carolina, North Carolina, and Virginia.

Dr. Aull plans to use two or three February graduates of Clemson to aid in this work during the coming year.

**ASAE Elects Russell**

Clemson's chapter of the American Society of Agricultural Engineers elected S. Tyler Russell to serve as their president for the coming school year. Russell is a senior from Jamestown.

Others elected at the same meeting were Parker Young of Dalzell to the post of vice-president, Phil Benfield of York as reporter, and A. W. Snell continues to hold his position of secretary-treasurer. Russell takes over the reins of prexy that Mark Kirkpatrick of Clio laid down upon his graduation this semester.

JANUARY 1949
**FURROWS**

**Alpha Tau Alpha Taps New Members**

The National Agriculture Education Fraternity of Alpha Tau Alpha initiated fifteen members this semester. Scholarship and foreseen ability to become a good agriculture teacher and leadership comprised the basis for selection to membership. The new members are: C. D. Boggs, W. C. Carter, O. R. Cothran, J. C. Hammond, Ed Hucks, W. A. Gamble, E. H. Green, C. N. Gulledge, T. A. Hyder, R. S. Jackson, T. E. Johnson, C. H. Latham, and R. T. Moore. The club’s leaders are Bud Railings, President; and Len Reynolds, Vice-President.

**Clemson Man Heads Fertilizer Officials**

Mr. B. D. Clasoninger, head of the Department of Inspection and Analysis of Clemson College, was recently elected president of the Association of American Fertilizer Control Officials at a meeting in Washington, D. C. Other officers elected at that time were: Dr. F. W. Quackenbush, of Lafayette, Indiana, Vice-President; and Henry R. Walls, of College Park, Maryland, Secretary and Treasurer. This national organization is dedicated to the promotion of uniformity among the various state laws regulating the manufacture and sale of commercial fertilizer.

**Swedish Economist To Visit Clemson**

Mr. Sven Holmstom, Agriculture Economist with the Federation of Farmers Association, came to America to study farming conditions which prevail and research which is being done by Land-Grant Colleges and Universities in the field of Agriculture Economics.

During his stay here he made many very interesting and enlightening talks. Mr. Holmstom, explained agriculture conditions and farm problems in Sweden; surprisingly, they do not differ greatly from ours. Mr. Holmstom expressed himself as being pleasantly surprised with the conditions he noted in this country and commented that they were much better than the average Swedish Economist has been led to believe.

**Ag Men In “Who’s Who”**

Clemson makes good! That goes for Clemson students enrolled in the School of Agriculture too! Twenty-one men were recently named in Who’s Who Among Students of American Colleges and Universities from Clemson. The School of Agriculture contributed four men to this group. They are: Sam E. McGregor, Dairy major, Lykesland; Len Reynolds, VAE major, Timmonsville; Billy G. Rogers, Ag En major, Lake View; and Lewis B. Smith, AH major, Mullins.

**National F. F. A. Convention**

Len Reynolds, official student delegate to the recent National Future Farmers of America Convention, at Kansas City, from Clemson reports a delightful and enlightening trip. He was in Kansas City from November 14 to 18. The conclave’s attendance aggregated some eight thousand delegates; South Carolina had fifty-six representatives there; two of these were from Clemson. Len reports the appearance of famous personages at this event. He specifically mentioned Monsieur Henri Bonnet, French Ambassador, Oscar R. Ewing of the Federal Security Administration, and Charles F. Brannan, Secretary of Agriculture.

**Ag Engineers Boast Of Building Progress**

The Agriculture Engineering Building is rapidly approaching a reality. Preliminary plans have been drawn up that include a detailed floor plan as well as a perspective of the new building. The arrangement is a T shape construction with an upper and lower story in the center portion. The two wings and rear section are of one floor height. The new structure will furnish ample space for classrooms, laboratories, shops, officers, and an ASAE club room. It is probable that the present plan will be used with possibly a few minor changes. The proposed site for the building is on Jersey Lane near the Horticultural Experimental Greenhouses. The actual construction of this building is expected to begin in the Spring.
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NEW REGISTRATION PLANS

Yes, exams are upon us. They mark the close of another semester which leads on into a new semester and . . . registration. This brings to Clemson students' heads nightmares of miles of tortuous and confused lines. But wait . . . there are to be no long lines this semester, according to the registrar's office. The registration problem was referred to a registration committee by the Deans and Directors of the College and is composed of the registrar and deans of the various schools. A meeting was held just prior to the Christmas holidays at which time the processes for registration were decided upon.

Under the plan worked out in order to complete matriculation early, all students may matriculate anytime between January 17 and February 4. As far as registration for classes is concerned all students classified as seniors on the official roster for the first semester will be considered in one group and all other students in another, but both groups will be allowed to begin registration simultaneously.

The seniors will be given priority in that all seniors will have begun registration by 10:30 A.M. Thursday, February 3 whereas underclassmen will continue registration on through Friday morning. A lottery system is to be used to determine the time of registration for classes. A drawing was held about two weeks ago and students will register according to the order in which the first letter of their last name was drawn.

This system, if carried out correctly, should eliminate most of the long lines and all of the shoving and confusion which held up registration last semester. The success of this system will depend entirely on the students, the manner in which they conduct themselves and the cooperation given to the administration by the students. We have all seen projects carried out successfully and we have all seen projects fail because of the students. This time I'm sure none of us want to go through the mad scramble that we ploughed through last semester so in order to insure that this system will be a success everyone should read the instructions published by the registrar's office and carry them out correctly.

AS WE SAY FAREWELL

Another semester draws to a close and with it comes another change of staffs for the AGRARIAN. The years since the war have been hectic ones for this publication with first one member of the staff graduating and then the other. Only with the help of several others outside the staff have we, the executive staff, been able to have as successful a year as we have had. Last February we started off with a large deficit on our books caused by a misunderstanding of contracts during reorganization of the staff and now we are proud to have turned out four issues and ended up with a reasonable surplus to turn over to the incoming staff.

We are certainly indebted to Professor John Lane and Dr. R. F. Poole for their help when we needed it most. Of course there are always the "Old Faithfuls"—the members of the Advisory Board, Professor Goodale and Dr. Aull. We would certainly have not been able to wade thru had it not been for the patience and helpfulness of Tom Millford, the printer, who smoothed out our errors and helped us with the technical details from time to time.

Members of our own staff should also come in for their share of the laurels— the advertising and business staff for all their efforts in getting the books back in the black, and the departmental editors who worked so diligently in writing articles regularly and turning them in on time in order to get the issue in to the printer. The biggest bunch of orchids should certainly go to the circulation staff for their unheralded and almost thankless job of seeing that The AGRARIAN'S reached their destinations on time. To every member of the staff I should like to again express my appreciation and thanks for the cooperation during the past year.

As we step out of harness and turn the reins over to the new but nevertheless somewhat experienced staff we hope that you shall carry on in the same spirit that we have strived to uphold this year. We feel sure that you will meet with the same cooperation and good will that we did during the past year but remember when the way gets tough that success is not attained by the easy road.
Clemson recommends S-210 for S. C., particularly for the Piedmont. Despite a severe drought it made 82.2 bu. per acre, highest yield of any yellow corn in 1947 Clemson Expt. Sta. tests, 8.1 bu. more than N. C. 27. At the S. C. Coast Expt. Sta. it made 5.1 bu. more than N. C. 27.

WOOD’S HYBRID CORN
BRED IN THE SOUTH 21 YEARS

We have just installed the most complete hybrid dryer and processing plant. Our hybrid seed now looks better than ever.

Two weevil resistant flinty hybrids with long tight shucks, making top yields in
S. C. Coastal Plains
Wood’s S-240 Flinty Yellow Hybrid
Wood’s S-360 Flinty White Hybrid

For S. C. Piedmont, Very prolific high yields, good shuck and weevil resistance:
Wood’s S-210 Golden Prolific
Wood’s S-315 Red Cob Prolific
Wood’s S-350 White Prolific

Write for Descriptive Catalog.
Oldest and Largest
Southern Seed House

Wood’s S-210 with 8 big ears on 4 stalks from 1 root
WINTER PASTURES — LABOR AND HAY SAVERS

By H. C. PEPPER
Animal Husbandry 1949
Clemson

For nearly a score of years diversification has been the watchword in South Carolina agriculture. In the wake of such advocacy, livestock has assumed a prominent place in a type of agriculture that was conceived to derive the most profit for those who till the soil and which simultaneously has proven of value in preserving for posterity a soil heritage that is characterized by a minimum of decency and at least partially sufficient.

The livestock producer is naturally concerned with supplying a suitable and cheap feed for his animals. South Carolina’s mild climatic conditions during the winter are certainly conducive to the production of winter pastures as good as those which are available during the summer. At the present time experiments along this line are in progress at the Agricultural Experiment Station here at Clemson.

The Animal Husbandry Department began a series of experiments in the Fall of 1946. Some fourteen acres of abandoned “red hills” near each. The total cost of the grazing was only 41c per cow per day, and for all practical purposes there was no labor cost.

At the same time these cattle were being grazed on winter pasture, other cattle of the herd were being fed in the barn. The cost of feeding these cattle aggregated 44c per day per cow. Needless to say, more labor was required and the cattle did scarcely more than maintain their weight. Except for such cows having calves, there was no gain realized.

The experiment is still in progress but there are inferences to be drawn at this time. Certainly the cattle on winter pasture had feed that cannot be surpassed for palatability and nutritiveness. It cannot be denied that green winter pastures are best for those who would farm with their eyes gazing toward the future. More green winter pastures in South Carolina will fulfill the prophetic note of Dr. Seaman A. Knapp: “The South will come into her own when her fields are green at Christmas.”

MAYBANK FERTILIZER CORPORATION

Manufacturers of High Grade Fertilizers

Charleston, South Carolina
The National Convention of the American Vocational Association was held in Milwaukee, Wisconsin from November 29 to December 4, 1948. It was my privilege to represent Kappa Chapter of Alpha Tau Alpha at this convention. Dr. T. A. White and Professor J. B. Monroe represented the Agricultural Education Department of Clemson.

Most everyone attending the convention arrived in Milwaukee Monday, November 29, and when the preliminary registration was taken care of, we retired early in preparation for the busy days ahead.

The Schroeder Hotel was headquarters for the convention and it was a busy place throughout the week. Tuesday morning we met in clubroom "D" in which the opening address was given by Mr. H. C. Fetterolf of the Pennsylvania State Department of Education. After his address, Dr. Smith of Cornell University and Dr. Hamlin of the University of Illinois gave some of the outstanding features of the teacher training program at the two schools.

The first Alpha Tau Alpha business meeting of the week was called to order by Dr. Gaar, of Louisiana State University, who made a very interesting speech on "The Agriculture Teacher's Contribution to Rural Life." A report was given by each chapter representative and then the meeting was declared open for any old or new business, various questions were discussed and a committee was appointed to outline a national program of work. The committee's report was accepted after a very lengthy discussion. Dr. Hamlin was elected for a three year term as second vice president of the National Chapter. Many good ideas were brought to the meetings from the individual chapters and these ideas proved to be of great value to the other chapters represented.

The Wern Farm employs dairying on a large-scale. There are approximately 850 dairy cattle on this farm and it produces 7000 quarts of certified milk and 6000 quarts of grade A milk daily. Seventy-five people are employed, to care for the cattle, work in the fields, and carry on a scientific breeding program. The outstanding cow on this farm is Dunloggin Mistress La Princess purchased in 1946 for $23,500.

The FABst Farm gave us an inside view on the extensive breeding program being carried on in the State of Wisconsin. Mr. Fred FABst is the owner of this farm which milks 150 cows, all of which go on official test at their first lactation period. The University of Wisconsin has recognized Mr. FABst as one of the outstanding breeders of Holsteins. This farm is the home of the 1947 All American Holstein Get-of-Sire and other world Champion Holsteins, FABst Roamer, Regal, and Comet. One of the significant things about the breeding program here is that all breeding is carried on by artificial insemination. This reduces the possibility of disease in the herd and also enables the animal breeds to utilize their outstanding sires to the best advantage.

After leaving FABst Farm we proceeded back to Milwaukee, with a good cross-sectional view of the dairy industry in Wisconsin.

On the return trip home it was my privilege to visit the International Livestock Show in Chicago. Never had I seen so many outstanding animals in one group. The Grand Champion Steer for this year was an Aberdeen-Angus. This is the first time in several years that an Aberdeen Angus has been judged as the outstanding steer in the United States.

After spending hours in the show I left for the long trip back to DIXIEland and home.

In your school laboratory you learn the technique of independent research—knowledge by which scientists explore the "last frontier" with microscopes and test tubes, making new and exciting discoveries that result in better products for home, farm, and industry.

Armour and Company are proud of our research scientists. We are proud of our contributions to the knowledge of human, animal, and plant nutrition ..., to the development of medicines and veterinary products, chemicals, glue, sandpaper, leather, and other by-products of animal origin.

Armour developments add value to farm livestock, and make possible better products for better living for consumers everywhere.

By FRANK M. HART
Voc. Agricultural Education, 1949

EIGHTEEN

THE AGRARIAN
FARMING is at the threshold of an exciting new era! Improved crop varieties promise even bigger yields. Better ways of controlling weed and insect pests are cutting crop losses. Records that keep tab of capitalization and depreciation as well as income and outgo are putting farming on a sounder business basis. Better crop rotations, contour farming, and strip cropping are saving precious topsoil—boosting farm production.

John Deere power equipment makes it easy to take advantage of these modern farming practices. It takes over most of the muscle work and gives owners more time to spend with their families. By reducing the uncertainty and drudgery of farming, John Deere implements make possible fuller, happier lives for farm families everywhere.

Because the strength of America lies in her free-thinking, unregimented rural population, we all have an important stake in our agriculture. New methods...better machines—all things that help to keep farm people prosperous and contented—safeguard our way of life. A strong, stable agriculture is insurance against evil days—a promise of brighter tomorrows!
THE HIGH COST OF IGNORANCE

What's wrong with South Carolina's Public School system? According to a very recent survey made, this question is not one to be shrugged off for there are a multiplicity of things that are seriously wrong.

How do we account for the fact that our graded school teachers are paid less than our neighboring Southern States, and nearly $700 less annually than the average for the nation? How account for the fact that our state spends $28.38 per child for school transportation each year while North Carolina spends only $14.00 per child? These alarming facts and figures are only a few of the many which were brought to our attention through the survey made of the public schools of South Carolina during the past year. This survey which was invited by the State Legislature through the South Carolina Survey Committee was undertaken by George Peabody College for Teachers, Nashville, Tenn., acting as a service organization. In accomplishing such a major job, the help of hundreds of interested and capable South Carolinians was necessary and fitting since they were in a position to reach and understand the peculiar problems.

Dr. George H. Aull, Head of the Agricultural Economics Department at Clemson is a member of the Survey Committee and through his connections in the state was able to make a great contribution to the success and accuracy of the report.

South Carolina a fairly small state is burdened down in details and poor management in its school policy with more school districts than the total number of districts in 8 other Southeastern states. With 1,680 school districts in our state, as compared to 172 in North Carolina, one can readily see how impossible it is for us to have a really efficient system. Our Constitution restricts the size of a district in terms of square miles, to be sure, but this might be the time to recognize our error and revise these provisions which only retard our progress and put our state at the bottom of practically every table which is compiled. The Constitution of 1865 does not, necessarily, meet the educational needs of 1949. Our Constitution also requires the election by popular vote of the State Superintendent of Education, and in other ways puts our educational system in politics. This we all recognize as an immediate hindrance which deprives an organization of sound business practices.

A person might normally assume that the children of our state enjoy the same educational provisions, more or less. This, however, is far from correct. For example, the tax levy to support a child in Clarendon County would have to be six times as great as that of Richland County to provide approximately the same educational facilities and services. The differences are due to inequalities in the distribution of taxable wealth. In many cases, children aren't aware of these facts, but we are. We can do something about the situation, but as yet they can't. The cry that we cannot afford an over-all provision for our state's children is unsound and wrong—annually we in South Carolina spend $69,000,000 on liquor, cigarettes, etc., while we spend only half this amount, $34,-500,000 for schools.

Every day 100,000 boys and girls are out of school in our state—either absent or not enrolled. This surprising figure would be reduced greatly, it appears, if our schools were made attractive enough to these pupils and the laws protecting them made more suitable to the needs.

What's wrong with South Carolina's transportation system for its school children? Some of the busses which carry the pupils to and from school each day are bought, maintained, and operated by the individual school districts. These busses are operated by drivers who function under contracts with the districts. An operator might be encouraged to go a little out of his way to pick up and deliver passengers. Some of the vehicles used for transportation of school children are provided by school districts, whereas some are privately owned, resulting in many complications and differences. Our state pays 3 MILLION DOLLARS A YEAR for school transportation and still has a poorly and inefficiently managed business with costs varying greatly and with the state paying a premium on inefficiency rather than discouraging it. Little efficiency and satisfaction can be expected from these systems.

Are we as South Carolinians interested in the welfare and educational program for the children of our state? We can hardly afford to learn of these shortcomings in our educational system without making some move in an effort to correct them. The school children of our state need our awareness and action—we need the children.

The facts in this article were derived from a report by the South Carolina Education Survey Committee. The survey Committee recommends a reorganization of the system and a "Minimum Foundation Program" of finance which will do much to rectify the evils in our present system. It is to the interest of all of us to get behind this program.

DEVELOPMENT OF GUERNSEYS IN CHESTER COUNTY

(continued from page 7)

The latest and most modern step in the expansion of a quality breeding program is the organization of the Chester County Artificial Breeding Association, through which any farmer will have access to the breeding value of the best sires in the breed.

Thus from small beginnings in 1884, the influence of the Guernsey cow has spread from Chester County throughout the Southeastern states. Because of it, a new agricultural economy has come to Chester County. A sturdy people who would not entirely forsake their inherent love of livestock have combined the utility of the Guernsey cow with the natural resources of a grass soil to produce a stabilized agriculture in the heart of Dixie.
All the fabulous fertility of ancient Egypt's soil, enriched each year with flood-borne silt from the Nile, was not enough to make man's living much better than that of animals. He was a slave, not merely to other men, but more to lack of power and implements to multiply his strength as he tried to till the earth. Egypt had seed and soil for high yield per acre, but the yield per man was low.

Today, many old-world peasants and oriental coolies get higher yields, figured by the acre, than those of the American farmer. Yet they are poor, while he prospers. He has freedom to use American farm machines, freedom to enjoy what he earns by his high yield per man.

Those freedoms are yours to enjoy, if you preserve them. When you come to choose equipment, or counsel its selection, remember two things about Case machines. One is their capacity, to get big production per man. The other is economy, to leave more earnings above expenses. It comes mainly from ENDURANCE that gives extra years of use from the original investment, cuts down yearly cost of upkeep.

**CASE**

See Fifty Centuries of Farming. Thousands saw it daily for a week during the Wisconsin Centennial Exposition at Milwaukee last summer. Filmed then, this Case pageant of quaint costumes, strange skills, ancient tools and modern machines has been made into a full-color sound movie. Be sure to see it when shown in your community. It will be made available later for meetings sponsored by educational agencies and farmer groups.

J. I. Case Co., Educational Division, Racine, Wis.
FLOWERS AND WINTER CAN BE COMPANIONS

By W. J. JENKINS
Horticulture, 1951

When cold weather comes and the outside world becomes drab and colorless, why not bring spring into your home to cheer those wintry days? Plant a garden right inside your home. It isn’t much work and the results will reward you many times for the effort.

There are many excellent plants to choose from for planting in your garden. Perhaps the hardiest of all is Aspisistra, the “Cast Iron Plant.” Because it tolerates lack of sunshine, too much or too little water, extreme variations in temperature, and dry air, it makes an ideal plant for the beginner.

The palms provide some excellent varieties and thrive on about the same environment as the “Cast Iron Plant” does. Ferns, one of the most popular groups of home plants are resistant upon certain cultural conditions. These beautiful but finicky specimens demand a moist atmosphere and die quickly when exposed to gas fumes. They prefer soil containing up to fifty percent organic matter but will do fairly well in any good soil.

The geranium possesses in addition to its attractions, three characteristics which account for its popularity. This “Poor Man’s Orchid” adapts itself to a wide range of cultural conditions, has few pests, and can be used successfully both indoors and out-of-doors.

A list of flowering house plants which omits begonias would be incomplete. Some are grown for the flowers, some for the attractive leaves and other for both blooms and foliage. Begonias require a little more leaf mold than most plants do. They should be protected from full sunlight in summer and exposed to it in winter. Water, if allowed to remain on the foliage, spoils the leaves of the plant.

When selecting a site for the new indoor garden, choose a sunny window in one of the cooler rooms of the house. Keep the atmosphere in the room as moist as it is possible to maintain it. This may be accomplished by putting evaporating pans on the stove or radiators; or if the house is heated by hot air install a humidifier on the furnace. Always keep in mind that most failures result from either too dry an atmosphere or too high a temperature. Other important environmental factors are water and light.

Selecting a good soil is very important to plant growth. Any medium weight soil fairly high in organic matter will be good. Add well rotted cow manure or pulverized sheep manure. Some people prefer to use steamed bone meal to provide plant food. It can be obtained in small quantities from any retail florist.

One of the nicer things about raising house plants is that they are, as a whole, easily propagated by cuttings. The commercial florist roots his cuttings in sand. Probably this is the best material for the home florist. A large flower pot or small box will make a good propagating bench. Place some coarse material in the bottom and cover it with about four inches of medium coarse sand. Keep the bed moist, not wet. Set the cuttings in trenches in the sand. Pack the sand firmly around the stems and water the cuttings immediately. It should take from four to six weeks for the cuttings to develop sufficient roots for planting out.

By careful selection of varieties, care in propagation and potting, destroying diseases and pests, and correct cultural practices, a person should be able to produce a very creditable indoor garden in a relatively short period of time.
Announcing
the NEW MM
MODERN MACHINERY
MODEL "Z"
VISIONINED TRACTOR

A PERFORMANCE-PROVED MM PRODUCT WITH MANY NEW IMPROVEMENTS

Four Front End Styles... Adjustable Rear Wheel Tread

Four front end styles adapt the new Z to any farming method. Model ZAU is a universal type tractor with two front wheels close together—The ZAN is a tricycle type universal tractor with one front wheel—ZAE has a front axle permitting tread adjustment from 56" to 84". Rear wheel tread adjustment on these three models is 54" to 88". The ZAS is a standard four wheel model—wheel tread 48".

The same approved Quick-on—Quick-off and Attachor tools are available with the Z for easier, safer Visionlined row-crop work...Safer for the crops because all tools are in full view of the operator without awkward neck stretching to avoid running down rows...Safer operation with smooth, positive MM Uni-Matic Power.

UNI-MATIC POWER—Gets More Work Done Every Hour
MM supplies a new hydraulic control mechanism for raising or lowering and controlling farm implements. Uni-Matic controls permit pre-selection or changing of tool depth or height of cut. It has tested safety features for both operator and machines, and frees the operator's hands and feet for greater safety. Operation of the hydraulic mechanism is controlled by an easy-to-reach, simple-to-use, finger-tip lever. Uni-Matic Power provides "push-button" farming, reducing fatigue, labor, and drudgery. Available as optional equipment on MM's famous Z, U, R, and G Visionlined Tractors.

NEW POWER—NEW LOOK—NEW FEATURES

MM's new model Z tractor is packed with power...greater piston displacement makes the new Z a heavy-duty tractor for heavy-duty work...gives the new Z a new zest for the roughest, toughest farm task! Around 10% more power puts the new Z in the 3-bottom-plow power class in most conditions. It is built to do the job faster with a reserve of stepped-up power for drawbar, belt, and power take-off equipment. Moreover the new Z is equipped with Uni-Matic Power—MM's new hydraulic mechanism for accurate height and depth control of mounted and pull behind implements.

Other improved features of the new Z assure continued top performance with greater versatility, economy, and long-life dependability. Larger 11:38 rear tires give greater traction... radiator is strongly constructed with cast top and bottom tanks, steel side frames, and a core that can be easily removed.

The new Z steers with "new car" ease and simplicity. The steering wheel is adjustable for height. The new Z provides the right speed for the job with five forward speeds (2.4, 3.6, 4.6, 6.3, and 13.1 mph) and 2.2 mph in reverse. High-turbulence combustion engine with controlled cooling, full pressure lubrication and with a balanced 3-bearing crankshaft delivers smooth power. The new Z is strongly constructed throughout for maximum service year after year, and all parts are easier to inspect and to service when necessary.

MINNEAPOLIS-MOLINE
POWER IMPLEMENT COMPANY, MINNEAPOLIS 1, MINNESOTA
THE LIGHTER SHADES OF COLLEGE LIFE

Probably the first thing you will notice about this month's "Lighter Shades" is the absence of a beautiful girl. We had a picture of lovely Ava Gardner all ready for publication when the Editor gave us the thumbs down treatment. It seems that the sex angle ain't what he wants. By slipping the slide rule a few times, we figure our readers have been cut about 98 percent. Sorry, Ava maybe next time.

Jacksonville seemed a great deal like Clemson New Year's Night. Students and professors seemed to be enjoying themselves to the fullest. Yea — everyone was loaded! Even "Frog" Ware seemed a little more philosophical than usual. He must have shaken hands with every guest in the Roosevelt Hotel at least twice.

Carolina Dances seem to be a little different than the usual Clemson "Drags". Their dances are actually attended by Carolina students, not by every beach bum and tramp that has the price of admission. The sooner the "boys in the front office" let the C.D.A. establish some sensible means of paying for our 'dances, the quicker a "clean up" can be started. You don't find such a bun crew at our concerts. Why should a Clemson dance have such an air of pollution?

Harvey Tiller and "Country Boy" Smith really made a weekend out of the Jacksonville affair. Tiller made the usual time with the gals while "Country" carved his name on every table at the Copper Kettle Nightclub. About ten Sunday morning, they realized they had come to Florida to see a football game.

Laurens Floyd's style was a little cramped down at Jacksonville by his father. Laurens used well over three tubes of toothpaste each day. Wonder why?

Sam McGregor and his ole' lady kept sticking their heads in the cocktail lounge of the Roosevelt Hotel. Did you finally have that snort, Sam?

"Fog" Booth wishes the general public to know that he (Fog) escorted Miss Janis Walton to the various social functions while in Jacksonville. Are we supposed to forget all the nasty things Fog said about Converse or did he date Janis because Bob was lugging some other cutie around with him.

For some time now, girls have wondered just what "gal school" a Clemson man favors. We've proceeded to take a poll among one hundred of Clemson's most outstanding students. To our knowledge, this is the first time such a poll has been taken at Clemson College. Here are the results: 43 men voted Winthrop their favorite, 21 chose Converse, 15 picked Clemson, 12 voted Limestone and 3 admitted they liked fillies from the Zoo. The rest of the votes were equally divided among Carolina, Brenau and Erskine. Winthrop still holds the distinction of being first choice with Clemson men!!

About the biggest difference between Ted Husing and "Pop" Seddon is that Ted is actually good. "Pop" just thinks he is. Does the Radio Forum have another voice — try it!

This about concludes the gab for this month. If we've hurt anybody, about the most consoling thing we can say is — forget it. Hope to be back soon with a luscious picture of Ava Gardner for you to drool over.

All you fellows now have another chance to win some free Chesterfields. Don't let your buddies get ahead of you. Just follow the simple rules and turn them in to room 3-228 or room 8-230. Remember that the first ten correct answers win a carton of Chesterfields.

QUESTIONS

A. Said Mr. A, "They're good and mild, you see."
B. The sequence two, five, five when solved, shows a smiling D.A. with sins absolved.
C. Working backward where this man dwells, you make one change for fragrant smells.

ANSWERS WILL APPEAR IN THE NEXT ISSUE OF YOUR MAGAZINE

RULES FOR CHESTERFIELD HUMOR MAGAZINE CONTEST
1. Identify the 3 subjects in back cover ad. All clues are in ad.
2. Submit answers on Chesterfield wrapper or reasonable facsimile to this publication office.
3. First ten correct answers win one carton of Chesterfield Cigarettes each.
4. Enter as many as you like, but only Chesterfield wrapper or facsimile must accompany each entry.
5. Contest closes midnight, one week after this issue's publication date. New contest next issue.
6. Answers and names of winners will appear in the next issue.
7. All answers become the property of Chesterfield.
8. Decision of judges will be final.

LAST MONTH'S ANSWERS & WINNERS

A. The field of red is the red scarf which Tyrone Power is wearing. On it one can recognize the mask of tragedy, the classic mask of Thespis. So the answer is TYRONE POWER'S SCARF.
B. The shamrock and the blarney stone are symbols of "THE LUCK OF THE IRISH."
C. Ten to the sixth (power) equals 1,000,000 (one million). Ten to the zero equals 1 (one). ANSWER: Chesterfields satisfy millions, they'll satisfy you.

WINNERS...

TWENTY-FOUR

THE AGRARIAN
NOW these 3 Farmalls
RESPOND TO THE MAGIC OF
FARMALL Touch-Control

You sit relaxed on the comfortable seat—and "tell" the implement with your finger what you want to do. Like magic, Farmall Touch-Control gives you complete implement control.

Raising, lowering and adjusting of implements is completely effortless. Just drop a finger to a pencil-size lever and command the responsive, two-way hydraulic power of Farmall Touch-Control.

See Farmall Touch-Control at work! Raise your plow over a grassed waterway at regular speed. Drop the plow without missing a foot of tillable land. In planting or cultivating, even in point rows, you can go full speed right up to the ends of the rows, because Farmall Touch-Control instantly raises the implement from the ground. Turn without time-loss. Start back without leaving "ragged" edges.

Your Farmall Cub—you Farmall Super-A—your Farmall C—each has its place as a single tractor on many farms and as an additional tractor on other farms. Each has its own line of matched, direct-connected, quick-change implements that team with Farmall Touch-Control.

Your Harvester dealer has a special folder about Farmall Touch-Control. Ask him for one, or send direct to us.

Listen to James Melton on "Harvest of Stars" every Wednesday Evening over CBS.

INTERNATIONAL HARVESTER
180 NORTH MICHIGAN AVENUE
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"I always smoke Chesterfields because they're MILD and they taste good...

It's MY cigarette"

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"I've been smoking Chesterfields ever since they used to put them up in a cardboard box. I never found any other cigarette to take Chesterfield's place..."

C.D. Allen

Farmer and warehouseman, Senora, N.C.

Make YOURS THE Milder Cigarette... They Satisfy

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For CHESTERFIELD CONTEST See Page 24