SERVING THE FARMERS IN NORTH AND SOUTH CAROLINA SINCE 1906

Planters
Fertilizer & Phosphate Co.

CHARLESTON, S. C.          CHARLOTTE, N. C.
AGRARIAN

PHILOSOPHY

Niles C. Clark, Jr.
Co-Editor

In past decades, the average farmer ranked very low on the social, economic, and political scales of human endeavor. He was a person who had very limited formal education, and who trusted to the customary farming practices, which had been used by his ancestors to bring forth meager harvests from his soil.

The picture has changed tremendously since this early time, and today's successful farmers are no longer thought of as the outcasts from other professions. Success in the farming profession today is correlated with management proficiency, salesmanship, business ability, and scientific knowledge. To fill these needs of modern agriculture, agricultural colleges and universities are spread across the United States and other countries. These institutions are succeeding in putting across workable ideas to the farm youth and are presenting, first-hand, new developments in the field of agriculture to students and farmers.

Thus, we need to study agriculture to get away from the antiquated methods and ideas that have so long prevented the advancement of sound principles in the world's agriculture.

Do you know the field in which you are going to work when you finish your education? Think about the decision that you have already made as to your future work. Regardless of what it is, are you going to be happy? This is the main objective to seek in a vocation — not money, social prestige, or personal gain.

A Resolution

Let's begin this new year with a determination to take advantage of all our numerous opportunities to equip ourselves with the essentials necessary to make this world a better place to live — through agriculture.
Two familiar old faces always welcome you back to the campus.

CLEMSON BOOK STORE
Official College Book & Supply Store

L. C. MARTIN DRUG COMPANY
Serving Clemson Men Since 1908

W. B. Camp & Sons, Inc.
Bakersfield, California
and
Gaffney, South Carolina

Buckfield Plantation
Yemassee, South Carolina
South Carolina is one of the three smallest sheep producing states in the union. However, interest in sheep in the state is growing rapidly.

One of the major reasons for increased interest is the large combing company at Johnsonville which was constructed this year and which will provide a local market for wool. This is the first wool combing plant to be located in the South, where woolen spinning and weaving mills are being built at a rapid rate. The plant is now processing wool at the rate of about 20,000,000 pounds per year and will process about 80,000,000 pounds per year when it reaches peak production. At present the entire wool output from South Carolina’s sheep would last this plant less than one-half day. The plant is now importing about two-thirds of its wool from Australia and other foreign countries.

In order to stimulate sheep production locally and at the same time improve the quality of wool produced, Mr. Arthur O. Wellman, president of the combing company, has recently imported 104 registered Australian Polwarth sheep from Victoria, Australia. They arrived in Johnsonville on November 1, 1954 after an 82-day journey. The sheep will be used experimentally by Clemson College at the site of the Combing Company to determine their adaptability to South Carolina conditions. The climate at Victoria is essentially the same as that at Johnsonville.

This is the first time Polwarth sheep have ever been shipped to the United States. These sheep are resistant to many sheep diseases, are large framed and produce exceptionally fine wool.

Two hundred and fifty western ewes have been shipped in from Texas to be distributed to farmers around Johnsonville where sheep interest is extremely high. One farmer is preparing to buy 1400 head and many others will purchase around 500 head.

Because of the demand for research work with sheep in the Southeastern States, the South Carolina Agricultural Experiment Station is starting a six-year experimental project with 100 western ewes. The effect of selection, hormones, light, and temperature on the breeding performances and early lamb production of sheep will be studied.

The United States consumes about thirty per cent of the world’s wool and produces only a small fraction of this amount. Wool was our largest import in 1951. Most of our imported wool comes from distances ranging from 6,000 to 12,000 miles. Economic experts predict that sheep production will increase markedly in the near future, and although the number of sheep in the United States has decreased in the last few years there has been a definite increase in sheep production in the Southeastern States.

Here are a few facts about sheep production:
1. Four sheep can be grown on the same area as one cow and the four sheep will produce better than one-hundred dollars a year income.
2. Many grazing experts estimate that the live weight gain per acre could be increased from five per cent to ten per cent by grazing cattle and sheep together since sheep make use of many roughages that cattle neglect.
3. Sheep produce two crops each year—lams and wool.
4. Returns come relatively rapidly. Ewe lambs can be bred to lamb as yearlings. Lambs are marketed young—at four to seven months.
5. Sheep are the only animals that can produce a prime product on forage alone.
6. Lambs will fatten on good pasture alone without any supplemental feed.

(continued on page 17)
So You Want A Farm?

THOUGHTS FOR CONSIDERATION

Louis Philhower, Ag. Ec. '55

There are several reasons why people may want to own a farm.
1. To supply opportunities for a full-time occupation in farming.
2. To live in the country and work on a full or a part-time non-farm job.
3. To live in the country.

Whatever the reason may be, the farm selected should fit the needs of the family whether it be for living or for a combination of farming and living.

In buying a farm let us not lose sight of the fact that the purchase of a farm is, for most people, one of the most important decisions they will ever have to make. The purchase is no small financial matter and, in addition to the financial aspect, there are social, religious and economic problems involved. For anyone who is inexperienced in farming it would doubtless be better to get started as a renter or a partner on a successfully operated farm.

Let us now consider the problem of acquiring a farm. Some people maintain that the best way to acquire a farm is to marry it or inherit it and this could easily be true with the present day high prices and the amount of capital required in most sections for a successful farming operation. However, before marrying a farm, make sure that you are getting the farm only as a bonus, and not as the sole purpose for the marriage. You will not have to live with the farm as closely as with the girl.

As to the matter of finance there are many different ways of acquiring credit. One of the major ways to get credit for buying a farm is through the local National Farm Loan Association which is a part of the Federal Land Bank System. A central bank is located in each of the twelve Federal Land Bank districts. The people running these banks understand the needs of a farmer or a prospective farmer.

They make long-term agricultural loans. Credit for production purposes may also be acquired at these same locations through the Production Credit Association. Both long and short term credit can also be obtained from local banks and from people in the community who have excess capital. In many cases, very satisfactory long-term loans can be had from these sources. Some who want to farm may also be eligible for loans through the Farmers Home Administration. It is important, if a farm is bought on credit, to arrange a repayment plan which is in keeping with prospective income and perhaps also to include some provision for temporary suspension of payment in the event of unforeseen circumstances.

Next, let us consider the social aspect. To some people, this may seem relatively unimportant but let us consider it and include it in educational facilities. In considering the farm, ask yourself some of the following questions and to these add some which might fit your particular situation. Do people of the community have the same social interest as you in regard to community organizations and community functions? Do their recreational interests coincide with yours? Are they on an equal plane with you in regard to educational interest and background? Does the community afford schools to properly educate your children both scholastically and socially? Each of these problems and many others should be carefully considered and weighed according to your particular situation and needs. Since all of us agree that religion is an essential part of happy living, let us consider the churches of the community and see that there is one in which we could attend and take an active part.

Also, there is the question of economics and this question is very important because it will determine (continued on page 20)
Opportunities for Ag Grads

What’s Ahead?

Elridge J. Wright, Jr., Agron '56

As an agricultural student, you should be interested in knowing all of the opportunities that lie before you when you graduate from college. In the field of agriculture, there are many different and varied occupations that you might choose from. These opportunities range from general farming to agricultural research in a scientific laboratory.

In general, the work of agricultural graduates may be classified in six rather broad fields: Farming, both general and specialized; agricultural extension service, including county agent work and extension specialists; research, especially work with the agricultural experiment stations; government regulatory work, such as plant inspection with the U. S. Bureau of Entomology and Plant Quarantine; teaching in college after appropriate graduate work is completed; and a host of occupations with commercial concerns, such as seed companies, meat packers, fertilizer companies, florists, canneries, hatcheries, commercial feed manufacturers, agricultural implement concerns, etc.

These six classifications are used to narrow down the great field of agricultural opportunities, but under each of these classifications, there exists an untold number of bright prospects for the agricultural student.

Here at Clemson College, there is offered in the curriculum, courses in Agricultural Economics, Agricultural Engineering, Agronomy, Animal Husbandry, Botany, Dairying, Entomology, Horticulture, Poultry, Forestry and Pre-Veterinary Medicine.

There are many varied opportunities to be found in any of these major courses, and each student should decide early in his college career just what aspect of his major course he is going to follow.

In the field of Agricultural Economics the student is trained wholly or in part for farming; managing farms, appraising land, crop marketing activities; supervising agricultural loan departments in private institutions and other positions of economic concern to agriculture. Among other things, the Agricultural Economist may find a position directing farm loan associations affiliated with the Farm Credit Administration. The Agricultural Economist may operate numerous other enterprises where a knowledge of economic principles is an essential supplement to knowledge of the technical requirements of the business.

An Agricultural Engineering graduate has a wide selection of opportunities from which to choose. These opportunities include mechanized farming; research with state, federal and private agencies; sales, service, advertising and design of farm equipment and materials, and agricultural extension service with state and federal agencies. He can also enter into the phase of Agricultural Engineering dealing with soil and water conservation. In this phase of work, there are opportunities in land drainage and reclamation projects, and in irrigation which is now becoming very important. The Agricultural Engineer also has opportunities such as: rural electrification work with power companies, manufacturers of electrical equipment and the Rural Electrification Administration of the U. S. Department of Agriculture; and the private business such as farming, operating machinery dealerships and related lines of business.

The graduates in the field of Agronomy have many fields of opportunities from which to choose their occupations. The Agronomy graduate is probably better prepared for general farming than are the other agricultural graduates since his is a course that is designed principally to prepare him for scientific modern farming. Other opportunities that Agronomy graduates have are in soil conservation work, agricultural extension and experiment station work, and also as plant breeders, soil analysts, and crop specialists. Other positions include work with commercial concerns such as fertilizer companies, seedsmen, and manufacturers of certain food products.

Another large agricultural field today is the field of Animal Husbandry. In recent years this field has expanded and has provided jobs for many different people. Occupations for Animal Husbandry graduates include livestock farming, cattle and swine breeding, extension livestock specialists, feed specialists, County agents, agricultural teachers, research work in the animal industry, positions with meat packing companies, feed dealers, and livestock commission brokers.

A small, but important field of Agriculture is the field of Botany. The men in this profession work hand in hand with the men in the other fields of Agriculture in establishing better plants. Opportunities for Botany graduates include research work with state, federal, and private agencies, teaching in the biological sciences, industrial sales and demonstration representatives for companies manufacturing fungicides and herbicides, positions as plant pathologists in nursery, orchard and food inspection as well as pathologist-plant breeders with seed companies and other research agencies.

One of the most important agricultural fields that provides thousands of jobs each year in the U. S. is the Dairy industry. Opportunities for Dairy graduates here at Clemson include dairy farming, dairy plant management, dairy herdsmen for large breeding companies, ice cream manufacturing, laboratory and technical work in dairy plants, milk in-

(continued on page 13)
Can You Feed Molasses Economically?

RESULTS OF DAIRY EXPERIMENTS

M. I. Fralick, Jr., Dairy ’56

Blackstrap molasses for feeding purposes is a by-product from the manufacture of cane sugar. Blackstrap molasses, also known as “cane molasses” or “feeding cane molasses,” is the residual material remaining after as much sugar as practical has been crystallized from the purified and condensed cane juice.

Blackstrap contains approximately 54% total digestible nutrients, which is composed almost entirely of sugars. Because of the action of blackstrap in slightly lowering the digestibility of protein in the ration, it is rated as having no protein value even though it contains a small percent of protein. This fact makes it important that ample protein be supplied by the other parts of the ration. The nutritional value of blackstrap molasses can be better visualized by comparing it with corn, which contains 80% total digestible nutrients and 6.6% digestible protein. Considering only the amount of total digestible nutrients in these two feeds, blackstrap is worth approximately 70% as much as corn, pound for pound.

The feed shortages caused by the drought condition in 1952 and 1953 stimulated considerable interest in the feeding of blackstrap molasses to cattle. Dairymen plagued by severe drought again this year will, of necessity, be searching for outside sources of feeds. Molasses has long been recognized as a desirable carbohydrate concentrate for dairy cattle. Experiments were carried out by W. A. King and J. P. LaMaster of the Clemson Dairy Department during the winter of 1952-53 to study further the value of molasses in the ration of dairy heifers and milking cows.

Yearling heifers, between the ages of nine and fifteen months were divided into three groups. Group 1, the control group, was fed corn silage and 2 pounds of cottonseed meal per heifer daily. Group 2 was fed corn silage, molasses free choice, and 2 pounds of cottonseed meal per heifer daily. Group 3 received corn silage, 4 pounds molasses poured on the corn silage and 2 pounds cottonseed meal per heifer daily. In all cases the corn silage was fed free choice in long out-of-door bunkers. In addition trace mineralized salt in blocks and bone meal or dicalcium phosphate were fed free choice in mineral boxes.

The three groups, each containing thirty-seven yearling heifers, were fed their respective rations for eighty-four days. The control heifers, group 1, were the slowest gainers, with a daily average of 1.42 pounds. Group 2, fed molasses free choice, gained 1.69 pounds daily. The average blackstrap consumption for group 2 was 5.85 pounds daily per heifer. When molasses consumption was limited to 4 pounds per heifer daily, as in group 3, the daily average gain was 1.80 pounds. Group 3 outgained all other groups and at the lowest daily cost. The highest daily cost was in group 2, fed molasses free choice.

The live weight gains of the heifers were satisfactory in all groups. The heifers fed molasses showed no symptoms of digestive disturbances, and appeared to have no difficulty in adjusting themselves to eating molasses in a trough.

Studies were also made with heifers of breeding age. The experiment was conducted from December 4, 1952, to March 25, 1953. At the end of each 28-day period the heifers that were found to be safe with calf were removed from the experimental groups. The average daily gain of each heifer was also determined at the end of each 28-day period. There was an average of 86 breeding age heifers in the experiment.

The molasses was fed free choice from a trough made from a 55-gallon steel drum cut in half lengthwise and mounted on a stand 30 inches high. The average molasses consumption was 5.25 pounds per heifer daily. The results of the feeding trials were favorable. The breeding age heifers average daily gain was 1.42 pounds, and their condition was excellent at the end of the experiment.

(continued on page 16)
MT. VIEW MILLING CO.
Manufacturers of High Grade Feeds
USE OUR PRODUCTS AND HELP CONSUME LOCAL GRAIN
PHONE 532 SENECA, S. C.

DAN'S
For the BEST in Hamburgers and all types of Sandwiches

TERRY BOTTLING COMPANY
Pepsi-Cola
Toms Flavors
Seven-Up
ANDERSON AND GREENWOOD

ROPER MOTOR COMPANY
FORD DEALER
Sales and Service
EASLEY, S. C.
Too Wet for Haying in Britain

International Farm Youth Exchange Delegate Reports on Observations

By Fred McLaughlin, Jr., A.H. '55

Yes, the British farmer will tell you that he has been able to harvest only one-fourth of his normal hay crops due to an abnormal excessive amount of rainfall this past year. It seems as if our problem is quite the contrary here in South Carolina. In a normal year, Britain gets about the same amount of rainfall as our state, which is 46 inches average per year. Their rainfall is more evenly distributed than our state's. When they get a rain it's always a slow, misty, and drizzling rain, never a hard, washing downpour like we get. This is very good and bad to their farming problem. In the good aspect, the farmers are able to produce yields that will surpass ours by a large margin. For example, a farmer thinks nothing of producing 95 bushels of oats per acre, whereas if a South Carolina farmer makes this kind of yield, he likes to let the other farmers know about it. In the bad aspect, the farmers are not able to allow their cattle to graze during the winter months to any great extent, because the pastures are too wet. We can get 9 to 11 months of grazing in South Carolina and the British farmer gets only 6 to 7 months per year that the cattle are able to stand up in the pastures without bogging to their knees.

The British farmer has always been proud of his purebred stock and careful crop husbandry. Now he knows that, as never before, the country depends on him for greater output and efficient methods in every branch of his work, and he is proud to show how well he is living up to the nation’s expectation.

To understand the farmer's achievements, and his problems, a visitor must see a typical farm. The average size of farms in England and Wales is around 100 acres; in Scotland and Northern Ireland it is smaller. Only one operator in twenty has more than 300 acres, but these larger farms account for almost a quarter of the nation’s farming acreage.

On a farmer's 100 lowland acres he probably has thirty-five to forty acres under cultivated crops, with the rest in hay and pasture. Cereal grains constitute more than half the crops; a quarter is potatoes, sugar beets, turnips, cabbage, and kale; and the rest one or more crops like peas, beans, fruits, vegetables, or flax. He feeds his livestock a large part of the oats and barley, and all the hay, turnips, cabbage, and kale, in addition to a small amount of imported feedstuffs. The rest of the crops he sends to market.

His livestock would include 10 to 12 dairy cows; around 20 calves, dairy heifers, and fattening steers; maybe 2 or more breeding sows or a dozen fattening hogs; possibly a small flock of breeding ewes; and anywhere from 60 to 300 chickens.

This could be considered a typical farm in a particular section of Britain, but the enterprises vary with the soil type and topography as they do even in our state. Take for example, a farmer in the West Highlands of Scotland wouldn't produce field crops to any great extent. He would grow enough crops to provide food for his family consumption and his main interest would be centered around the production of wool.

It is not too much to claim that Britain has played the leading role in the development of modern farm livestock, and is still the stud farm of the world.

Of the twenty breeds of cattle, sheep, swine, and farm horses of world-wide reputation, all but six originated in Britain. Most of the breeds of cattle and sheep in the United States and Canada, as well as some of the pigs, trace their ancestry to Britain.

The three most popular breeds of cattle in North America, the Hereford, the Shorthorn, and the Aberdeen Angus, all originated in Britain; they are also the most popular breeds in Britain today.

From the point of view of animal health, Britain is fortunate in being an island. Serious epidemic diseases which have at times devastated the herds of her continental neighbors, have long been excluded. But, in a country which imports so many animal products, strict quarantine precautions are necessary, and even the most elaborate do not always succeed. Rare outbreaks of hoof and mouth disease are promptly stamped out by drastic slaughtering and burning, with Government compensation to the affected farmer.

The world's first agricultural experiment station (and still one of the most famous) was Rothamsted in Hertfordshire, developed in the middle years of the last century by John Lawes, who "invented" superphosphate, and in so doing made enough money to finance the center. At Rothamsted the foundations of modern fertilizer practice were laid, the importance of soil micro-organisms first emphasized, and the possibilities of soil sterilization first exploited. Research into soil science is still carried on there, some of it by far on the oldest test plots in the world.

Britain's farms today are among the most efficient in the world. Not only are they highly mechanized and making better use of machinery every year, but their crop yields are high and steady, and their output per man-year equals that of both Canada and the United States. A careful system of soil conservation and crop rotation, built up over hundreds of years and now aided by the newest scientific experimentation, maintains and increases soil fertility, making possible the intensive use of land without robbing it.
A report to you about the TEAMWORK of men and machines that helps maintain International Harvester leadership.

How automatic arc welding puts uniformly high quality into IH plowshares

In this age of modern science and research, it is significant that the plowshare—one of the oldest parts in farm equipment manufacture—is still being improved.

At International Harvester, research engineers and factory production men have teamed together to apply successfully the techniques of modern automatic arc welding to mass production assembly of plowshares. The result is a consistently uniform, high-quality product that always fits right, holds its shape, wears well, and enables the farmer to do a first-rate job of plowing.

![Diagram of plowshare parts](image)

Before welding (left), the plowshare blade (A) and gunnel (B) look like this. After being automatically arc welded (right), the two parts are joined like this (C), with a strong, consistently uniform weld. Shares are forged and heat treated after welding to give them proper shape and wearing qualities.

The common goal of IH research, design, metallurgy, field test engineering, and manufacturing is to improve the quality and performance of IH products, while keeping costs to a minimum. The result is product leadership that helps farmers everywhere reduce production costs and increase profits.

For more details, write for free engineering paper, "Automatic Arc Welding of IH Farm Equipment Parts." There is no obligation. Send postcard with your name and address to International Harvester Company, P. O. Box 7333, Chicago 80, Illinois.

INTERNATIONAL HARVESTER

International Harvester products pay for themselves in use—McCormick Farm Equipment and Farmall Tractors...Motor Trucks...Crawler Tractors and Power Units...Refrigerators and Freezers—General Office, Chicago 1, Ill.

After successful, coordinated development work between researchers and production men in the technique of application, the automatic submerged arc welding process is now a standard factory operation at IH’s Canton, Illinois, Works in the mass production assembly of plowshares. This turret-type welding fixture has 10 "stations" where 10 plowshares at a time are automatically in process of being loaded into the fixture, welded, cleaned and unloaded. Arrow points to plowshare in position in one of the "stations." In this process, a carefully engineered combination of granular flux and welding wire is used to produce, rapidly, a uniformly strong weld—automatically.

Both IH customers and dealers benefit from the use of automatically arc welded plowshares. Consistently uniform quality in manufacture helps assure dependable performance in the field. This is one reason why McCormick® plows are first in favor with particular plowmen everywhere.
BLOCK AND BRIDLE CLUB NEWS

Speakers at Recent Meetings

Professor George B. Nutt, head of the Agricultural Engineering department, was the guest speaker at the regular meeting of the Block and Bridle Club on Tuesday, November 23, 1954. He discussed some facts dealing with the relationship of Animal Husbandry and Agricultural Engineering. In his talk he brought out the fact that many feed lots are now equipped with machinery that eliminates the hand labor once needed for cattle feeding.

At another recent meeting Dr. J. B. Pitner, head of the Agronomy Department, spoke on the feed production problems of animal production in South Carolina. He brought out the importance of irrigation as an insurance against the frequent short summer droughts which occur at a critical time in the growing season of most of the state's forage and pasture crops.

Members Attend Livestock Exposition

Freddie J. Rivers of Chesterfield and Robert C. McDaniel of Chester represented the Clemson Block and Bridle Club at the club's national convention in Chicago on November 29, 1954.

Freddie and Robert have been active club workers and were elected as delegates by popular vote of the club. They departed for Chicago on November 24 and attended the convention on Monday, November 29. Membership was one of the more important topics discussed at the business meeting. The Clemson Block and Bridle Club ranks sixth in new membership out of all the clubs in the nation.

Before returning they visited the International Livestock Exposition. At the Exposition they saw livestock judging, horse shows, and cattle from South Carolina which won top honors in several departments.

Also attending the International Livestock Exposition were Ray Buck, Bill Ham, Walter Ramage, Jim Ulmer, Joe Hood, and Rick Godshall. Professor R. R. Ritchie, a past faculty advisor of the club and Dr. W. C. Godley were also present at the Exposition and attended a meeting of the American Society of Animal Production.

OFF-CAMPUS TEACHING

Beginning with the second semester of the 1954-1955 session, Clemson College will inaugurate an off-campus agricultural instructional program at two of its branch experiment stations where graduate students may complete part of their work toward the master of science degree. This new phase of instruction is being offered in response to requests from South Carolinians employed in agricultural professions and will be designed to fit their needs. Classes will be taught by branch station staff members who will organize and present the courses in cooperation with their respective department heads located on the Clemson campus.*

The two courses to be offered for the second semester of the current school year will be Horticulture 450 — Truck Crops, to be taught at the Edisto Station, Blackville, and Entomology, to be offered at the Pee Dee Station, Florence. Although Clemson College operates additional branch stations at Charleston, Summerville, and Columbia, there are no immediate plans for similar work at these locations.

Enrollment in the off-campus program is restricted to students who qualify for admission to the Graduate School. Students interested in enrolling for the 2nd semester program were required to submit Graduate School applications no later than January 15, 1955. The teaching program at the Branch Experiment Stations for the first semester of the 1955-1956 session will be announced at a later date.

* The instructional program will be under the general supervision of Dr. J. W. Jones, Director of Agricultural Teaching.

DAIRY CLUB NEWS

The Clemson College Dairy Club holds its meetings on the second and fourth Tuesdays of every month. The purpose of this organization is to bring together students mutually interested in topics relative to the dairy industry and to inspire a live-lir interest in academic work.

On December 1, 1954, the club met at the Clemson House and a dessert supper was served. For a project this year the club is sponsoring Preston the Magician on February 24 and 25. Everyone is invited to attend.

DR. STEPP HONORED AT MEETING

Dr. James M. Stepp, Professor of Agricultural Economics at Clemson College, was elected Second Vice-President of the Southern Economic Association at the annual meeting of that organization at Biloxi, Mississippi, November 19 and 20. At this meeting Dr. Stepp presented a paper entitled "A Summary of the Agricultural Policies of the United States." Dr. Stepp has been a member of the research and teaching staff of Clemson College since 1940, and is the author of a number of research publications dealing with rural industries and the industrial development of small towns and rural areas.

As Second Vice-President of the Southern Economic Association, it is Dr. Stepp's responsibility to promote and encourage membership in that organization. The membership of the association is made up largely of college and university teachers and research workers in various fields of economics in the general area that includes Maryland at one extreme and Texas at the other. The Southern Economic Association is a professional organization whose objective is to improve the level of economic teaching and analysis in the South.

THE AGRARIAN
HENDERSON WINS DAIRY AWARDS

James Kermit (Jimmy) Henderson, a senior majoring in dairying at Clemson, has recently been awarded the 1954 “Agricultural Leadership Award” by the Milk Industry Foundation in Washington, D. C. Jimmy is one of five boys throughout the United States to win the award of an expense-paid trip to the 47th annual convention of the Milk Industry Foundation and a cash prize of $100. He is the first Clemson student to win this award. The convention was held the week of October 24, and he was presented the cash award during one of the meetings.

Jimmy also won the Borden Agricultural Scholarship which gives an annual award of $300. This is awarded to the eligible Senior who has achieved the highest average grade on all of his college work preceding his senior year. Two or more Dairying subjects must have been included in his curriculum for a student to be eligible for this award.

POULTRY CLASS TAKES TRIP

On December 9 five students of the poultry grading and processing class took a trip to Gainesville, Ga., to J. D. Jewell’s Poultry Inc. Here they toured the plant and saw the various steps in killing, cutting, government inspection, and packaging. They also visited the rendering plant where the by-products of the main plant are rendered into a protein supplement called chicken scrap. At the same plant feathers are rendered into feather meal which may become a protein feed supplement. The class also visited Georgia Eggs at Athens which is a farmer’s cooperative egg market. While in Athens a tour of the new veterinary building was made. The first class of S. C. boys at the University of Georgia, most of whom are former Clemson students, will graduate this June.

All on the trip thoroughly enjoyed visiting with all former classmates who are now studying veterinary medicine.

AGRONOMY MEN ATTEND MEETINGS

Dr. W. B. S. Boykin and Mr. E. S. Stuart of the Agronomy Department attended the meeting of the Southern States Phosphorus Work Conference at Blacksburg, Va. The meeting was held on November 30 and December 1. Dr. Boykin and Mr. Stuart presented results obtained at Clemson with nitric phosphate.

South Carolina was well represented at the meeting of the American Society of Agronomy which was held at St. Paul, Minnesota, on the eighth through the twelfth of November. The men from Clemson who attended were Dr. J. B. Pittner, head of the department; Dr. W. R. Paden, an agronomist with the experiment station; Dr. J. W. Jones, Director of Agricultural Teaching; Dr. H. G. Albritten, an agronomist with the experiment station; Mr. O. W. Beale and Dr. T. C. Peele, Soil Scientists; and Dr. C. M. Jones, Associate Professor. Dr. Alfred Manviller, associate plant breeder in charge of corn breeding at the Pee Dee Station at Florence also attended.

CLARK WINS TRIP TO CHICAGO

Niles C. Clark, Jr., an Animal Husbandry Senior from Waterloo recently represented Clemson in a market study which was held in Chicago and sponsored by Swift and Company. Niles won the trip by submitting the winning essay on the nation’s livestock business — from producer to consumer.

A study of the marketing of livestock and livestock products comprised the major portion of the program. Among the activities were a tour through the stockyards with Swift livestock buyers, a visit in a wholesale meat branch house, a study of factors affecting nationwide daily livestock prices, and a general consideration of the packers position in the nationwide livestock business. Twenty-nine boys from as many states were represented in the market study. The contest winners lived at the Midland Hotel during the study and made daily trips to the stockyards and the general offices of Swift and Company. The study lasted from December 5 through December 8. Several of the winners remained through the 9th for a brief tour through Chicago and visited Don McNeil’s Breakfast Club which is televised, the Chicago Board of Trade — a grain exchange, and the Museum of Science and Industry.

ALUMNI NEWS

Major T. S. Strange, Dairy ’35, is in the Air Force at Maxwell Air Force Base, Montgomery, Alabama. Gene Mathis, Poultry ’52, is now the turkey specialist of the state and is also the proud father of twins.

L. L. Benton, Agronomy ’23, is now the assistant county agent of Horry County.

Richard R. Baskin, Dairy ’48, now holds the position of assistant Manager of the Traipe County Dairy Cooperative, LaGrange, Ga.

D. K. Fricke, Dairy ’52, has moved from Greenville, S. C., to Birmingham, Alabama, where he is employed by the White Dairy.

William T. Derieux, Poultry, is home from Walter Reed Hospital where he was placed after being wounded in the Korean War.

J. J. Pitts, Agronomy ’41, is a Soil Scientist with the Soil Conservation Service at Florence, S. C.

R. F. Elrod, Dairy ’52, is now a dairy farmer in Piedmont, S. C.

H. H. Lewis, Jr., Dairy ’52, now holds a position with Seals Dairies, Washington, D. C.

R. E. Obrien, Agronomy ’52, is now farming in Eutawville, S. C.

Major M. B. Edens, Dairy ’47, has been reported as missing in action on the Manchurian Border.

Lt. T. R. Hawkins, Dairy ’53, is now on a tour of duty in the Army at Fort Benning, Ga.

J. G. Reamer, Agronomy, now holds the position of District Manager of Armour Fertilizer Works, Atlanta, Ga.

J. B. Garrison, Jr., Dairy ’53, has recently been made Breeding Technician for the Artificial Breeding Association of Greenville County.

JANUARY 1955
Farm and Home Week

AN EDUCATIONAL EXPERIENCE

By Weston “Bird” Weldon

During the week of August 16 through the 20th, the thirteenth annual Farm and Home Week was held at Clemson College. This occasion was first known as Farmers’ Week from 1925 to 1950. (There was only year between the period of 1925 to 1950 that Farmers’ Week was not held.) Seeing the need to change the title of this vast and growing occasion in 1951, the officials called it “Farm and Home Week.” The attendance at earlier meetings in the late 20’s was only a few hundred people but this year brought forth a record breaking crowd estimated between ten and fifteen thousand people.

Dormitory facilities were completely filled near the beginning of the week. There were several hundred families that had to be turned away due to lack of adequate facilities to accommodate them because of uncompleted dormitories. College officials were very regretful for this situation.

A man and his wife traveled all the way from Greensboro, North Carolina, just to see some particular dairy equipment which the man was interested in. This couple tried to find a place to stay everywhere around here and the facilities were full. A Clemson man taking pictures spoke up readily and said that he was taking care of a prefab for his buddy while he was away for the summer. He stated that if this couple would like to spend the night there, that it would be perfectly all right with him. The Clemson man said that he thought $3.00 would be enough to charge, but this young dairyman gave him $7.00. The next morning the young dairyman returned to the big tent, and purchased 2 silage handling machines from the Jamesway Manufacturing Co.

A friendly atmosphere of good band music was supplied by the Parris Island Marine Band. This band has played for every Farm and Home Week except two. The music seemed to pep up the young and old alike from a hard day’s lecture of various discussions on many farm projects.

The appearance of Andy “The Big Orange man” Griffith was a sight in itself to see and hear. His poise and expressions have gained for him national recognition in the entertainment field. Mr. Griffith is a graduate of the University of North Carolina.

South Carolina should be proud of the superb talent which appears at the annual 4-H State Talent Show. This talent show has been one of the outstanding events during farm and home week. Tap dancing, string bands, individual instrument playing, and singing have always appealed to the listening ears of our southern folks.

There was approximately one and one half million dollars worth of farm machinery and appliances on display during the annual event. The big tent on Bowman Field had a length span of 475 feet. Money for many exhibits was not spared in the least by our leading manufacturing concerns. Actual farm machinery demonstrations were carried on by dealers out on the college farms. An item which caught many farmers eye was the new method of power steering which has been added to a certain brand of farm tractor.

Thursday’s program was highlighted by the appearance of Miss Miriam Stevenson, “Miss Universe.” Miss Stevenson had the honor of christening a new variety of watermelon. This melon was given the name of “Charleston Gray.” This melon was developed at the Southeastern Research Laboratory at Charleston, by the USDA and agricultural experiment stations of 13 Southern States, including South Carolina.

The Rural Church Conference brought a close spiritual binding between our farm homes and the country churches. The general theme was “The Mission of the Rural Church.” The Reverend G. Ross Freeman made a talk on “Fitting the Church into the Community.”

The Clemson Dairy Department put a new brand of cheese on the (continued on page 20)
Why Landscape?

HOME GROUND BEAUTIFICATION

Robert J. Donaldson, Jr., Hort. '55

The purpose of landscaping is to get the maximum beauty, practical use, and enjoyment from available outdoor space. The necessity for proper planning of outdoor areas is becoming quite a problem to many families living on lots of medium to small sizes and in smaller houses.

Properly-designed home grounds, large or small, can provide facilities for uncrowded outdoor living. Wide ranges of variety in ornamental plant material can provide privacy as well as attractive surroundings for work or play.

Today when many small houses are being built, we should realize that small properties have many advantages for home ground design. With less area to be covered, each phase of the development can be more intensely planned and executed.

A successful design for a small area must necessarily take advantage of every feature of the site. Space must be organized carefully so that gardens, lawns, work areas, terraces, etc., will not be overcrowded.

Size, shape, orientation of the property, the style of the house, and its position on the lot are factors that influence the plan or design of the grounds. Frequently, a condition which seemingly is a problem, will open the way to an attractive and unusual design. Other conditions affecting the design to be followed are existing features such as trees, shrubbery, outcropping rocks, buildings, changes in grade, and exposure to the elements.

It is surprising to know the large number of useful and attractive features that can be worked into comparatively small home grounds if planned properly. Such details as gardens, pools, arbors, steps, walls, tool houses, play equipment, and outdoor grills should be considered in advance, and then, when practical, they can be installed in their proper places in the overall plan.

The gardener who enjoys a variety of plants and has an affinity for collecting must indeed plan carefully to avoid overcrowding. Plants should be grouped into separate gardens, beds, or borders which are located in a logical order to one another, the house, and other structures on the property.

Lack of organization causes much space to be wasted. Also, features which would otherwise be attractive are scattered ineffectively and problems of maintenance are greatly increased. Consider the many examples of unattractive properties which surround us. Generally, these grounds have been developed in a sporadic, unorganized manner with no thought for an overall design. Several plants placed around a house does not make it landscaped. Usually this type of grouping does little to improve the appearance. The most expensive mansion looks awkward when surrounded by too few, too many, or a helter-skelter arrangement of plants.

Proper design is the answer to effective landscaping. Start out with a design in mind. Do not allow the detail of the design to discourage you from having home grounds complete in every respect. Make no small plans. Plan completely and then carry out the development in a gradual, orderly way that will not be too costly at any one time. Only in this way can one accomplish the ultimate purpose of landscaping — the beautification of the grounds that surround our homes and other buildings.

OPPORTUNITIES FOR AG GRADS

(continued from page 5)

(Extension Service photo)

A well-planned farm home.

JANUARY 1955

(continued on page 14)
Dr. Virlyn A. Boyd
Professor Boyd was born in Villa Rica, Ga., attended and graduated from Berry College with a B.S.A. degree in 1941. He received his M.S.A. degree from the University of Kentucky in 1948.

James D. Boykin
"Jim" is from Georgetown, S. C., attended and graduated from Clemson Agricultural College with a B.S. degree in 1950. He received his M.S. degree from Clemson Agricultural College in 1954 and has done graduate work at the University of California at Los Angeles and at the University of Southern California.

Mr. Boykin has been teaching General Zoology Lab, Animal Physiology, Protozoology here for five years.

Dr. W. B. S. Boykin
Dr. Boykin was born in Boykin, S. C., attended and received his B.S. degree from Clemson Agricultural College in 1950. He received his Ph. D. from the University of Wisconsin in 1954.

This is Dr. Boykin's second year teaching. He teaches Field Crops and Soils Lab.

He is a Sunday School Superintendent at St. Paul's Episcopal Church in Pendleton.

Opportunities for Ag Grads
(continued from page 13)
also may work with florists, seedsmen, fruit products companies, fertilizer companies, fungicide and insecticide manufacturers and dealers, and spraying and dusting equipment manufacturers and dealers.

One of the fields that has expanded tremendously here in the South in the last few years is the poultry industry. Poultry graduates have the advantage of going into a rapidly expanding field which is becoming highly important so far as income is concerned. Poultry graduates have opportunities as poultry farm operators, hatchery managers, sales and servicemen with feed manufacturers and poultry equipment concerns, poultry research workers and extension agents.

One of the two preparatory courses given in Agriculture at Clemson is the Pre-Forestry course. The students who complete the two year preparatory course are qualified to transfer to any of the major forestry institutions in the country. Opportunities for work exists on national forests, state forests, and large private timber lands in technical administrative capacity. Those graduates who have training in forest products are also in demand in pulp and paper mills and laboratories and in the mills and developmental laboratories of the larger lumber, plywood and furniture companies in this region and throughout the United States.

The other preparatory course offered in Agriculture is the course in Pre-Veterinary Medicine. The students who complete the two year course may be qualified to enter the (continued on page 18)
VAN LOTT, Inc.
430 Meeting St.    West Columbia, S. C.

Distributors of
IRRIGATION EQUIPMENT
WEBSTER PIPE    JAEGER PUMPS
RAIN BIRD SPRINKLERS    BERKELY PUMPS
G. M. DIESELS

WEBSTER PIPE CONNECTIONS

Big Oak Ranch

BRAHMA — HEREFORD — ANGUS
CROSSES

and

Registered BRAHMAS and HEREFORDS

Mt. Pleasant, S. C.
Ray M. Buck, Owner
CAN YOU FEED MOLASSES ECONOMICALLY?
(continued from page 6)

Can molasses be economically fed free choice to milking cows? From January 15 to April 8, 1953, feeding trials were conducted with 8 pairs of selected milking cows to answer this question. One of each pair of milking cows was put in a control group, and the other cow of each pair was placed into the group to be fed molasses.

At the beginning of the experiment both groups received all the corn silage they would consume, and the cows in group 2 received molasses free choice. A 20% protein mixture of corn, oats, cottonseed meal and minerals was fed to the control group at a rate of one pound per 3.4 pounds of 4% fat-corrected milk (FCM) produced. The cows of the molasses group received a 41% total crude protein mixture of cottonseed meal and minerals at the rate of a pound per 6.8 pounds of 4% fat-corrected milk produced. The molasses fed to this group was to replace one-half of the concentrate.

It was found that the cows receiving molasses free choice would not balance their ration satisfactorily. The molasses consumption during the first 8 days averaging 19.7 pounds daily per cow, while silage consumption dropped from 90 to 30 pounds daily. In an attempt to make the cows adjust their molasses consumption, alfalfa hay was fed at a rate of 7 pounds daily per cow. The hay was fed to both groups and the per cent protein of the concentrates were lowered because of the protein provided by the hay. The desired effect was not obtained. The cows continued to increase molasses consumption reaching an average of 26.9 pounds per cow daily. Their milk production dropped sharply. On the fifteenth day of the experiment it was decided that molasses could not be economically fed free choice, and it was limited to 9 pounds per cow daily.

For the remaining 70 days of the feeding trials, the limited feeding of molasses proved satisfactory, with milk production almost completely returning to normal. For the entire experiment the average milk production of the control group averaged 37.2 pounds per day on a 4% butterfat basis compared to 35.1 pounds for the molasses group. The control group produced 6.0% more milk. Analysis of variance showed that this difference was not significant. The feed cost per 100 pounds of milk calculated to a 4% butterfat basis averaged $3.07 for the control group and $3.17 for the molasses group.

Coming back to the question, should molasses be fed free choice to milking cows, the results from this experiment indicate that it should not. When molasses consumption is limited, under normal conditions it can be used to replace part of the concentrate.

The Dairy Department at Clemson continued for a second year the study of the value of blackstrap molasses in dairy cattle rations. Two feeding trials were conducted for 70 days each with three groups of milking cows.

Results were in favor of using molasses as part of the concentrate. The average production of group 1 (control), to which no molasses was fed, was 33.1 pounds of 4% FCM per cow daily. Group 2, with molasses used as one-fourth of concentrate, had a production average of 36.9 pounds of 4% FCM. Group 3, with molasses used as one-half of concentrate, had an average daily production of 33.3 pounds of 4% FCM.

The cost of producing 100 pounds of 4% FCM was $2.70, $2.37, $2.57 respectively. Most economical production was obtained from the cows in which 4 pounds of molasses was used as one-fourth of daily concentrate. Even in group 3, with 8 pounds of molasses serving as one-half of daily concentrate, more economical production was obtained than when no molasses was fed.

Each group consumed approximately the same amounts of TDN daily. The percent protein in the concentrate was in proportion to the molasses fed so that each group received very nearly the same amount of protein. The consumption of corn silage, the only roughage fed, averaged close to 100 pounds in each group. The molasses was fed by pouring it over the corn silage.

More favorable results for the feeding of molasses were again obtained in the second feeding trial. The same groups of animals were used. The average daily production of the group not fed molasses was around one pound more than the two groups fed molasses, but the cost of production was slightly higher. The cost of producing 100 pounds of 4% FCM was $2.60 for the control group, $2.55 for group 2 with molasses replacing one-fourth of energy concentrate. Unlike the first trial, the cost of production in this case was lowest for the group receiving 8 pounds of molasses daily as one-half of concentrate.

Feeding trials with yearling heifers were also continued a second year. The purpose of this trial was to determine the value of molasses containing urea and ammoniated molasses. These two non-protein nitrogenous compounds can be util-

Power take-off operated feedin gequiment in action.
ized to some extent by the ruminants through the action of the bacteria normally found in the rumen. The bacteria convert the non-protein nitrogen into protein that can be used by the animal.

Three pounds of molasses containing 5% urea and three pounds of Molatein (the ammoniated molasses) were fed to yearling heifers of group 2 and 3 respectively. This feed was used to replace one pound of the cottonseed meal.

The heifers of group 2 made a 1.44 pound average daily gain and those of group 3 a 0.92 pound gain. The gains of group 2 were satisfactory but not as good as those of group 1 (control). Group 1 received 3 pounds of molasses and 2 pounds of cottonseed meal per heifer daily without special nitrogen compounds added to the molasses. Molatein was not satisfactory as a source of protein for heifers. Cost per pound of gain was higher in group 2 than in group 1, and highest in group 3. Of the two non-protein nitrogenous compounds tested, urea gave much more satisfactory results. Urea is finding rather wide-spread use by commercial feed companies, but its use by a person not specially trained could be dangerous because of the harmful effects that occur if fed in too high amounts.

The source of the experimental data found in this article was mimeograph reports made by the Clemson College Dairy Department.

SHEEP FOR S. C. FARMS
(continued from page 3)
7. Sheep are easily handled and moved.
8. Equipment and shelter can be relatively simple and inexpensive.
9. There is always a good demand for mutton and wool as well as many by-products.

However, no livestock business is the proverbial "Utopia" and the sheep business is no exception to this rule. Sheep are naturally defenseless and must be protected from their enemies. In South Carolina the worst sheep menace is the sheep-killing dog. Sheep are also highly susceptible to both external and internal parasites. They must be kept in relatively dry pastures because foot-trouble may develop on wet muddy ground. Also sheep, in general, require more labor and attention than other livestock.
(continued on page 20)
LAND USE AND SOIL COMPACTION
Problems of a Growing Population

B. L. Walpole, Agron. '55

Today the American farmer is charged with feeding an ever-increasing population. It is highly important that farming no longer be a "hit or miss" proposition. It should be a success depending on higher output per unit with lower cost per unit; thus it is vital that the farmer should have a working knowledge of his most basic factor of production—the soil.

To achieve maximum sustained output from this soil two chief factors are necessary, understanding the land capability and proper land practices for each of the classes of capability.

The factors which determine the capability class (rated one through eight) are surface texture, permeability of the subsoil, depth of surface and subsoil, slope, wind and water erosion, and surface drainage.

Selections of proper practices are made from three standpoints. First, from the vegetative standpoint—should it be terraced, farmed on the contour, ditched, or do gullies need controlling? From the standpoint of fertilizer and soil amendments what is the pH? What liming program should be followed? What is the best fertilizer to apply? Is it deficient in any minor element?

By sound land use, soil improvement, crop selection and farm management the American farmer will continue to meet the challenge of a growing population.

Compacted Soil
Soil scientists and agricultural engineers are beginning research on a relatively new soil problem—soil compaction.

Some believe that this soil damage may one day approach erosion as a major limitation on crop yields particularly on level productive soils with intensive cropping practices.

Perhaps you can better realize the problem of soil compaction by noticing the puddled paths on several new campus lawns. As long as this hard surface is present no grass will grow. Compaction can also occur beneath the surface.

Usually the soil does not reach a hard "concrete" state but reaches a condition which retards air and water movement. Water stands on level fields which are compacted after every rain or if the field is sloping, the increased runoff increases the erosion problem. Also roots are retarded in penetrating these dense soils.

Compaction may be caused by livestock trampling, by equipment turning on row ends, and by too much use of heavy equipment particularly on heavier soils that are too wet to work. Good physical condition can be ruined in one season by working at the wrong time.

While it takes a long time to cure "compaction pans" it can be done. Perhaps the most important point is to avoid working and grazing soils that are too wet. Plan tillage operations so as to make fewer trips over the field. Use a rotation program that will improve tilth and that will increase organic matter. This organic matter will promote a population of beneficial soil microbes and earthworms.

Proper fertilization promotes a vigorous, loosening root growth. Deep tillage and other mechanical practices may help.

OPPORTUNITIES FOR AG GRADS
(continued from page 14)
University of Georgia Veterinary school. The veterinarian, like the other agricultural graduates, has varied opportunities. In addition to practicing Veterinary Medicine, many of them secure positions with the state and federal governments as livestock and meat inspectors.

The foregoing opportunities for Agricultural graduates are only a few of the many thousands that exist today. With so many different jobs to choose from, the Agricultural student should have no trouble finding an occupation that he will enjoy and also will pay well, financially.
Rarely, if ever, has the imagination and ingenuity of farm youth had so fascinating a field as is opened up by the hydraulic controls used on modern tractors. With control valves at his finger-tips, and standard portable rams which will work wherever a hose will reach, there is almost no limit to the things that an inventive young mind can contrive.

Major applications, of course, are ready-made by tractor builders and specialty manufacturers. With the latest side-mounted mower for the Case "VAC-14" Eagle Hitch Tractor, two hydraulic cylinders provide instant adjustment of both cutterbar angle and height of inner shoe. And when a Case "200" side-rake is used for immediate windrowing, the built-in hydraulic cylinder of Eagle Hitch also adjusts raking height of the reel. The driver does two jobs at once, with three major adjustments under hydraulic control.

The same versatility of hydraulic power can be adapted to pull up posts, jack up machines or portable buildings, do most any task that takes precise control of mighty force. You can count on modern hydraulics to help fulfill your young ideas.

If you'd like to know just how hydraulics work, Case has a 15-minute movie, "Hydraulic Controls," on this fascinating aid to modern power farming which you can borrow. A companion booklet of the same title is yours to keep upon request. If you'd like to know about all the training aids that Case makes available, ask for catalog "Visual Aids to Modern Farming." J. I. Case Co., Racine, Wis.
SHEEP FOR S. C. FARMS
(continued from page 17)

There are five types of sheep businesses: First, the herded commercial sheep business which is used in the West extensively. A full-time sheep herder is used instead of fences. Second, the fenced-range commercial sheep business. This method has a higher initial cost, but lower cost of operation. Third, the purebred sheep business, where the main income is from the sale of rams to commercial sheepmen. Fourth, the farm flock. In this system a small flock is managed with a farm. The size of the flock is variable but should not be less than thirty for profitable production. Fifth, the feeder-lamb business which is rather limited.

The farm flock method will be the most popular method in the Southeast where land area is the limiting factor: In some cases the fenced range method will be used where there is enough area to permit it. As our commercial flocks increase, there will probably be a large enough demand for rams to warrant purebred sheep production.

SO YOU WANT A FARM?
(continued from page 4)
your mode of living as well as a large amount of your activity. There are many types of questions to be asked here, some of them are as follows:

1. Is this farm suited to the type of production and to the enterprise in which we wish to engage? Certainly we would not try to grow truck crops in a remote section of the Midwest nor would we try to grow wheat on the high-priced small farms of New Jersey. Make sure that there is a good market available for the crops you wish to grow and that the farm is well adapted to these crops.

2. What improvements will have to be made before the type of operation I desire can be put into effect and how much will these necessary improvements cost?

3. Is the soil capable of supporting the desired type of operation? Soil type, fertility and suitability can either make or break you. Therefore, they should be carefully studied and considered.

4. Is there enough rainfall to support the type crops you wish to grow or is there too much rainfall? Does it have a good distribution throughout the growing season? This matter of rainfall is very essential and is absolutely essential unless there is available irrigation water which can be obtained economically.

5. Is the climate suited to the growth of the crops you wish to raise and will it allow for the optimum growing conditions?

6. Is the size of this farm going to call for your full ability as an operator and manager? This is an important question because if you are going to be a full time farmer you want to be fully employed. Idle time is costly as it reduces income and your ability is wasted. At the same time do not get a farm that is too large for the amount of capital you have to invest. Also, do not get one that will overtax your capabilities as a manager and an operator. Having either too large or too small an operation can easily cause the failure of any kind of business. The farming business is no exception.

7. Then you must consider the price you will have to pay in relation to the net income that you can reasonably expect to get. It is frequently stated that good land is cheap at almost any price (certainly it is generally cheaper than poor land) but after all when we buy a farm, we must pay for it and provide for ourselves and our family out of what we earn. Buying a farm when the prices of farm products are relatively high can be very inconvenient if payments have to be made when prices are relatively low.

Before you purchase a farm make an accurate check to see that the property is clear, from a legal standpoint. It is usually wise to get a competent attorney to check the legal implications.

Have a good heart to heart talk with yourself and make certain that you honestly wish to farm before you purchase, because farming requires hard work and long hours. These long hours and hard work would be very unpleasant if you did not actually desire to farm. Without complete interest and desire you would likely fail as a farmer. As a further thought it is well to see if your wife or wife-to-be likes farm life. Her happiness and cooperation is essential if the farming venture is to go forward.

FARM AND HOME WEEK

local market during Farm and Home Week. The name of this new brand is Clemson Blue Cheese. This cheese is partly processed here at the college, and it is then taken to the tunnel at Stumphouse Mountain for aging.

If Thomas G. Clemson could have dethroned himself from the great stone statue in front of Tillman Hall for only a few hours, he would have been utterly amazed at Farm and Home Week.

South Carolinians should be thankful to Mr. Tom Morgan, chairman of Farm and Home Week, to Clemson College officials, and also to the extension workers for their effort is invaluable for our farmer friends and their families.

Compliments From
YOUR CLEMSON COLLEGE
PONTIAC DEALER
Sullivan Motor Company
ANDERSON, S. C.

TWENTY
No doubt about it—this will sound a million times removed from the subject of bales, but . . .

If you've ever hung around the kitchen much at canning time, you're sure to have noticed it—the similarity, that is, between Ma's putting up preserves and Pa's putting up hay.

For one thing, each—Pa, as well as Ma—attaches to his and her particular job the same prime importance, going about it with the same visible earnestness and at the same unyielding pace. What's more, each applies to the job the same meticulous care every step of the way—from the harvesting, to the preparing, to the final storing.

Ah, yes—the storing. Ma has her special equipment, of course, that helps her to speed through her job and make captive for the winter months the very most in the way of summer-grown flavor and nourishment. And naturally, Pa has his—a John Deere Baler, that makes an easy task of gathering, packaging, and preserving swiftly and economically the vitamins, minerals, and proteins that contribute so much to the building of flesh and bone in livestock and to the output of better animal products.

Which all goes to show what a difference a good bale makes. Incidentally, that John Deere Baler of Pa's—it's just one of a long line of John Deere Quality Farm Machines and Implements designed and destined to help him and farmers the country over to get the most from a generous earth.
Enjoy both sides of smoking pleasure!

Feel that mildness —

Taste that flavor —

that’s a Cavalier!

Light up a king-size Cavalier and you learn why so many smart college people are shifting to Cavaliers. Yes, Cavaliers give you mildness where it really counts . . . in the feel of the smoke.

You know Cavaliers are extra mild because the smoke feels so mild, so light, smooth and easy-going. And tastes so good . . . so fine and lastingly refreshing. Join the thousands who are enjoying extra mildness and superb flavor in king-size Cavaliers! Get some today!

CAVALIERS ARE KING-SIZE
yet priced no higher than leading regular-size brands. Why not graduate to Cavaliers?

B. J. Reynolds Tobacco Company, Winston-Salem, N. C.

Off campus, or on . . . Try king-size Cavaliers, and feel that Cavalier mildness, so smooth and light! See if you don’t agree with thousands of smokers who compared king-size Cavaliers with the cigarettes they’d been smoking.

See why, among thousands of smokers interviewed . . .

8 OUT OF 10 SAID
CAVALIERS ARE MILDERS!