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Clemson University

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March, 1942  Clemson, S. C.
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But insulators are helping to bring dependable electric power to farms throughout America... helping the nation's farmers to produce the vital stores of food without which there can be no victory... helping to win this war!

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SOCIAL SCIENCES IN WAR
Guest Editorial — By D. R. Jenkins

"The sooner we are able to harness all our knowledge and skills, the social as well as the technical sciences, the sooner will our superior resources and manhood win the victory."

From our experience in the first World War we have a good idea of the jobs that can be assigned to the different sections of our population. However we are somewhat tardy to recognize the part that can be assigned to the sciences, particularly the social sciences.

We are well aware of the role that agriculture plays. The slogan "Food will win the war" is back again in currency, with something added. This time we hear that "Food will win the war and write the peace." From our past we also know how heavy industries and transportation contribute to the making of a war machine. This time the emphasis is on motors, rubber and alcohol instead of shells, mules and toluol. The general picture is the same, except that the war machine calls for parts in enormously greater number and variety than before.

The big difference between earlier wars and the present one is not so much the size of the industrial needs as the fact that war has become TOTAL. When Alexander hired some axemen and bowmen to set him up as world conqueror, war was a separate department from ordinary living. Again when Napoleon recruited horsemen and musketeers to conquer Europe, business went on as usual. However with each major war through history more and more of the nations' agencies and resources have come into the war picture, until now we have reached almost the limit of total war. The main conclusion that follows from "totalness is the need for a finely balanced coordination between the parts. Thus we have seen the teaming of tanks with planes (or ships with planes) by radio communication just as we have seen the teaming of diplomacy with war, and civilians with soldiers. Above all we have seen the teaming of science with action.

It is easy to perceive that there is a place on the team for the sciences that service agriculture and industry directly. However we have been a little slow to recognize the part that some other of the sciences can perform in the coordination of all resources for war. Many branches of science that contributed little or nothing in World War I now provide the key to successful operations. Meteorology is a good example. Both the vicious stab at Pearl Harbor and the sudden escape of German ships from Brest were made easier by rainstorms that should have been predictable. Meteorology is only one of many sciences that have come of age since World War I, some of the other outstanding ones being loosely classified as social sciences. Economics, sociology, psychology, together with the branches of statistical methods developed for these sciences have seen their greatest application in human affairs during the period between the wars. Civilization has become so complexed that the coordination of an economic system and the application of a program cannot be carried out solely by amateurs, however gifted.

One striking example out of many hundreds can be taken from what we now understand about the enemy's tactics. Several years ago some of us were inclined to scoff at the news that the Nazis were drafting the services of psychologists from their Universities. Looking back over the pattern of defeats that the Nazis have inflicted on the Democracies in the past four years, we can see that it was not all done with brawn. The German army was not invincible as we now know, but was helped to victories, some of them almost bloodless, by the cunning coordination of a "war of nerves" with the diplomacy of treachery and the disorganizing tactics of fascist "five columns." These activities were based on the use of propaganda techniques that the psychologists had worked out. It is terrible to realize that men of science used their knowledge of the human mind and its working to tell plausible lies and to sow chaos, nervous breakdown and despair. However, there are many aspects of total war that are even more terrible.

If there is anything we have learned from the experience of Britons under aerial bombardment, it is that bomb casualties are the least in importance. In Britain about one person in ten thousand has been killed by bombs since the war began. This would make about two casualties for a city the size of Anderson. The immediate problems of keeping daily life going are by far the most important, especially if the fighting morale of the civilians is to be sustained. Next follow the complex problems of defense migration and population dislocation, adjustment to new surroundings, community organization, housing and planning for re-built communities, and so on. This is mainly the field of the sociologist.

The place of the economist in war time is obvious. Foreign trade in relation to world politics, conservation of industries, rationing materials in such a way as to obtain the maximum yields, the control of price movements, financing war and the post-war reconstruction, all are in his field of work.

Further examples of the application of the sciences could be given almost indefinitely, but the point should be clear: The sooner we are able to harness all our knowledge and skills, the social as well as the technical sciences, the sooner will our superior resources and manhood win the victory.
SWEET POTATO DISEASES

L. C. Hammond, '42

The sweet potato crop can easily rise from fifth in importance as a cash crop in South Carolina. Handling and storage, are responsible to a great degree for this low export.

Through the work of the Extension Service this condition of exports is much better at present.

Let us, briefly, discuss some of the more important of these diseases, taking into consideration their symptoms, control and proper curing and storage methods.

Stem rot or wilt, Scurf, and Black Rot may be found in either the seed bed or the field, while soft rot and the last of the above mentioned group, Black rot, are most prevalent in the storage house. Stem rot, carried in and on the seed potato, in the old seed bed soil and in the field, may be easily identified in either the seed bed, where black streaks are found on the inside of the underground portion of the slip, or in the field where the leaves become yellowed between the veins, and somewhat puckered. Plants so diseased may die throughout the season or produce a few small potatoes which tend to produce short sprouts from the stem end. The black rot organism, causing infection, is found on the potato, and other places, as just explained in the case of the wilt, and is also a storage house disease where it spreads the infection to healthy potatoes. A yellowing and sickly appearing foliage is seen in the seed bed and field. On the potato the presence of the disease is shown by the somewhat circular, depressed spots of varying size having a grayish black surface.

Infection by the scurf disease occurs in the same way as that of black rot, however, it can only be recognized on the potato in the form of brownish discolorations of the epidermis. The brownish spots which are only skin deep, tend to begin at the stem end of the potato and work downward until the entire surface is covered.

The skin may then crack and become tough and leathery, thus allowing the entrance of rot fungi. The actual food value of such a diseased potato is not greatly impaired, but the loss comes from reduced market value because of the unsightly appearance.

Soft rot results in considerable losses in curing and storage. The bread mold organism, always present in the air, enters only wounded potatoes, or those injured by freezing or too long exposure to the hot sun. The infected potatoes at first become watery and soft and later shrunken, hard and brittle. Not much spread occurs during storage as is the case with black rot.

Now, let us outline the practices necessary for the control of the above described diseases. First.
EDUCATION WITH JERSEY INSURANCE

By C. B. Parr, '44

Correct handling of Jerseys can prove good Education Insurance

One problem that confronts our parents when we are growing up is how they can find the means to educate us. This is especially true of the parents who are dependent on a farm income. The wise father and mother start planning for their children’s college education when they are small, for they realize only too well the limited amount of cash that can be set aside year by year for this purpose.

In 1929 my family consisted of my father and mother, three brothers and myself. I was the oldest, being six years-old, and my brothers were five, three and one, respectively. That was the year for me to start to school, and when Father and Mother began buying first-grade books, school clothes, etc., they realized that some plan must be devised to make possible the education of their boys, especially as we were so close together in age. Of course they considered the educational insurance policy, only to reject it because it would require too large a premium money to provide for four boys. As we had plenty of everything on the farm but money, my father decided to invest in four registered jersey heifers that could be raised on surplus feeds normally found on the farm. In due time he thought he could count on the offspring from these-heifers to help educate his boys, and besides raising the animals would give the boys a worthwhile occupation and interest.

Our knowledge of the right kind of heifers was limited, so we considered Mr. T. F. Cooley, our county dairy specialist, and Mr. Dudley Steer, former Extension dairy specialist, about what and where to buy. Under their guidance, we purchased four granddaughters of “You'll Do Volunteer” and “Raleigh Farmer's Glory" for $300.00. One of these was a yearling for which we paid $150.00. The other three cost $30.00 each. The Yearling heifer was a nice looking animal, and I immediately claimed her, while my brothers took possession of the other three calves, an unattractive looking bunch—unfed, louse-ridden and woolly. I can well remember my grandfather teasing my brothers about those woolly calves. We had confidence in the judgement of Mr. Cooley and Mr. Steer, so we went to work with a will on the calves, clipping all their hair off and greasing them with oil to get rid of the lice.

When we started with our calves, we had only a three-acre pasture and the mule lot. The calves got along fine running in the mule stables behind ten mules and eating bundle oats that we fed them twice a day. Our calves were bought in April, and when fall came, they were ready for the State Fair. However we did not know how to fit them. A local livery stable man came to our rescue with the proposition that he would help us fit and show the heifers for half of their winnings. To this we readily agreed. Every calf won a ribbon; my heifer was first in her class, and also Junior-Champion. This heifer won about $75.00, while the other three won about $15.00 each. I believe that it was our experience at the fair that really sold us on dairy cows.

When the heifers were two-years-old, they dropped calves sired by “Brampton Triumph Standard,” the Wheeler Brother’s bull. The two oldest dropping heifers, and the two youngest dropping bulls. The first heifer from my cow has never had a bull calf, but has had eight heifers. The two oldest heifers now have forty three descendants in our herd.

We bought half interest in a son of Imported Forward out of the highest testing daughter of “Fly Sultan.” This bull has made a silver medal in spite of inexperienced handling of his daughters.

That was our start, and all went well until we raised and bought with our fair money too many calves for the land available. Then too, we had not learned much about feeding. There was not enough surplus feed left from feeding the mules, nor did we have enough hay and grain for the cows, as ours was still a cotton farm. Our calves began to die from stomach worms, and our yearlings did not grow out. We sold all but what we could adequately feed. However, we did not sell those undergrown cows with registration papers.

Until 1935 we had been selling cream, and Grade "B" milk. At that time my father began getting away from cotton, and he put in a few cows with ours. He had fenced in fifty acres of only fair pasture land. A dairy barn had been built the year before, and we had separated our cows and our mules. We also realized that our calves must be separated from the cows. Since 1936 our calf mortality rate has been as low as I believe it is possible to attain on a farm. We have lost only one heifer since then. We feed milk from the cows for only four weeks, and during that time we feed the milk from a pail that has a nipple. This one factor has been of great benefit in the rearing of healthy calves.

In 1936 the daughters of our “Forward” bull were ready to breed, so we purchased a son of “Observer King Onyx” out of a Gold Medal daughter of “Lawnbridge Beauty Volunteer.”

In 1937 we fenced in more worn-out farm land for pasture, and by using lime with phosphate this is now becoming a first rate pasture. When we started, we had only 3 acres of poor pasture; now 125 acres.
Horticultural Products Laboratory
By T. W. Gwin, '43

The fact that California can sell canned peaches at a profit after shipping them across the continent should, in view of the experiment last season, encourage the development of a canning industry here.

Surplus productions from orchards like these can be utilized to the best of advantage by sensible canning program.

In 1940 the State Legislature, at the request of the peach growers of Spartanburg County, appropriated money for the establishment of a Horticultural Products Research Laboratory at Clemson College. In the spring of 1941 the laboratory was located and built adjoining the Horticultural Greenhouses just at the edge of the campus.

The laboratory was started for the purpose of determining the best methods of canning South Carolina fruits and vegetables. The laboratory is under the administration of Prof. A. M. Mussur, Head of the Horticultural Department, and the processing is supervised by Prof. L. O. Van Blaricom, Assistant in Horticultural Manufacturers, who received his training at Oregon State College. The first experimental work was conducted in peaches because of the extremely large acreage of this crop in this state as well as in North Carolina and Georgia. This work began in the summer of 1941. About 1400 cases of peach preserves, whole peaches, spiced peaches, peach halves, and peach butter were canned during this period. About 900 cases were in No. 2 1-2 cans and around 500 cases were in No. 10 cans. Of the thirty-six varieties canned, fourteen made an excellent canned product. A selection of four to six of these can be made for a particular locality and will provide the raw material for canning over a period of two to two and one-half months.

The chief object of the past season was to show that South Carolina can grow a number of varieties of peaches that will produce good crops of high quality fruit that will make an excellent canned product. The Horticultural Department has in its experimental orchards thirteen new seedlings which ripen before the Golden Jubilee variety, the earliest of the good canning varieties. These are all highly colored, good quality peaches and from them one or two more varieties can be obtained to further lengthen the canning season.

Formerly, it was believed that eastern freestone peaches would not make a good canned product. However, critics failed to take into consideration the fact that each year thousands of housewives can freestone peaches in the Southeast. Since it was commonly believed that freestone peaches could not be successfully canned on a commercial scale, it was necessary to convince canners, wholesale and retail grocers, and consumers that they could be made into a good canned product. One cannery in New York State has been canning freestone peaches for years and sells this product on quality alone and the experiments at Clemson have shown that a canned product of high quality and good appearance can be made from southeastern peaches.

It is more difficult to handle freestone peaches during the canning process than clingstone varieties, but many of the freestone varieties have so much better flavor than most of the clingstone varieties that it is well worthwhile to use the extra care required in handling the freestone varieties during the canning process. One of the reasons why most of the varieties that were canned at Clemson the past season made such a good product was the fact that the fruit was ripened before being canned. All of the peaches were picked one or two days before they would have begun to soften on the tree. They were then placed in storage rooms having temperatures of 35, 55, and 65 degrees F. At all three of these temperatures (lower than outside air) the peaches colored and ripened uniformly. Naturally ripening proceeded at a more rapid rate at 65 degrees F. temperature than one as low as 35 degrees F. which is a point in favor of the higher temperature. This method of ripening together with the method of peeling used is believed to account largely for the excellent quality of the canned product. At the high air temperatures prevailing at peach harvest most varieties do not ripen or color uniformly on the tree until they have become too soft to handle. If, on the other hand, the peaches are picked while firm

Continued on page 19
THE PROBLEM OF FOOD PRODUCTION
By C. B. Fellers, '43

Goals that have been set will be difficult to reach but the farmer can do it despite war time shortages.

The farmer can ill-spare labor.

Farmers are being called upon for the greatest food production in our history. "The new 1942 goals, Secretary Wickard said, "call for putting every acre of land, every hour of labor, and every bit of farm machinery, fertilizer, and other supplies to the use which will best serve the nation's wartime needs." The converting of our farms on a war time basis have brought about many difficult and serious problems.

The principal problem is one of labor. The migration of good farm labor to the factories has been on the increase for some time, until now the drain is becoming not only serious but devastating. The farmer is unable to compete for labor with the roaring factories from one end of the country to the other under his own economic situation and the prices he receives from his produce.

Supply and demand will probably make it possible for the farmer to attain "parity" in the sale of his goods in the nation's market, and it appears to be freely conceded that such prices would only be fair and just and not inflationary. Parity is a price designed to give farm products the purchasing power they had in some past period, usually 1909-14. Since the prime object is to get the production, policy will be to put prices high enough to induce farmers to produce what's needed.

The cost of living has advanced 25% in the last year. Despite attempts of the food processors to blame higher prices on the farmers, the fact of the matter is that farm prices ended the year 1941 at only 92% of parity. Rising prices will also mean rising costs, and need for acute management to watch profit margins. The purpose of the price ceilings is to keep the rises in line.

The chief concern of the farmer is that there be no price collapses such as occurred at the end of the other war. Unfortunately, the price control bill does not offer any protection against postwar drops.

The curb on tire sales makes it hard for the farmer to secure tires for the operation of his farm tractors and farm implements. At the same time quotas have been set by OPM for manufacture of farm machinery and equipment. These obstacles are arising at the very moment farmers are being asked to increase production. All of this adds up to the necessity of adopting a course for making the best of the situation. That appears to be what the government has already recommended and planned for: getting more and longer service out of tractors and machines now on the farms by having this equipment overhauled and maintained for maximum efficiency.

Some of the goals that have been set will be difficult to reach, but the farmer can do it despite war time shortages of farm labor, machinery, fertilizer, and production supplies.

Without food and fiber, our ships, planes and cannons are "as sounding brass or a tinkling cymbal."

Farmers Challenge

Farmers are challenged by the present emergency. That is in the matter of waste. It is questionable whether the country could afford at any time the prodigality which for so long characterized our use of its God-given resources. Now, of course, we realize that a small size democracy could have grown fat on the food which we literally threw away, to say nothing of the other crimes we committed in the name of "individual freedom." Now, perhaps, we shall become a thrifty people and if so, who shall say that all was a loss?

Finally, when once again the world regains its senses, when the "blue birds" return not only to the "cliffs of Dover," but to the caves of Corregidor, the hills of Chunking, and the Straits of Macassar (yes, even to the ruins of Europe) let it be the proud boast of the American farmer that in the hour of the world's need, he laid the intelligence to plan, the fortitude to produce, and the wisdom to conserve.
DAIRYING AND THE SOUTH’S FUTURE
By E. B. Collins, ’43

In solving the future of the South, dairying is bound to play an important part.

In the early Colonial days, the Carolinas were considered two of the greatest cattle states in America. Today they rank among the lowest ten states of the Union in numbers of dairy cattle. Why has our southern Agricultural system been so different from the early predictions? Nature has brought together in the Southland temperate climate, fertile soils, abundant rainfall, and a long growing season. What more could the early pioneers have asked as free gifts of Nature? These characteristics make the South one of the greatest potential agricultural sections in the world.

While our Southland has great possibilities as a cattle section, certain other enterprises such as cotton and corn, relish the same requirements for growth as do pasture grasses. Consequently, cotton has taken the lead, and today the southern people are feeling the effects of a one-crop system of farming. Our attention must be turned toward the importance of soil fertility. Thomas Green Clemson, one of the greatest early American farmers, whose bequest made possible the founding of the Clemson Agricultural College, and whose efforts were influential in the founding of the Maryland Agricultural College, was a great advocate of the maintenance of soil fertility.

It is agreed upon that one of the easiest and most efficient methods of maintaining soil fertility is the application of farm manure. This is one of the benefits to be obtained from livestock. Improved pastures and dairy cattle can be made to aid greatly in overcoming the disastrous one-crop system of farming used by many southern communities. Pasture grasses in South Carolina should furnish at least fifty percent of the feed for dairy cattle. At present, pasturage supplies only twenty percent. With the development of pastures and livestock in connection with other types of farming, self-sustaining farms and contented rural life can be put on a more solid foundation.

The Dairying industry has now one of the greatest opportunities in history for growth. During peacetime, America neither exported nor imported very large amounts of dairy products. A little foreign cheese made up practically all of the imports. Today England is asking for enormous amounts of skim milk, evaporated milk, and cheese. At the same time the American people are asking for more milk and other dairy products than has ever been asked for in the history of our country.

It is true that the continuity of these demands, should war be suddenly stopped, is a matter of speculation. Amazingly large numbers of dairy cattle are being slain for beef continually in Europe. Since dairying is a long time enterprise, these cattle cannot be suddenly replaced when peace is declared. The consumption of milk per capita in the United States is much below that demanded by milk’s qualities as a food. The requests of England, the butchering of cattle by Germany, and the increased demands in America have only hastened the trend in milk demands which was sure to come. It is true that there will be a decrease in the demands for dairy products at the close of the war, but it is also evident that dairying in the South will never again return to the same level as pre-war times.
Horse and Mule Production as a Vital Factor in National Defense
By D. C. Eaddy, Jr., '45

The small farmer is a pillar of the nation ... and without his mule he would be absolutely helpless.

According to latest available statistics furnished by the Department of Agriculture, there are approximately 4,000,000 mules in the United States with an average value of $114.53 each and 1,000,000 horses with an average of $77.45. Since the National situation has become so acute, the sale of machinery and even fuel to a certain extent, has been sharply curtailed. The small farmer is the backbone of our Nation; the produce of his farm is a vital necessity in the situation which we face, and his method of production is a matter of acute concern to our leaders in the war of production. The mule is the main field power in the Southland. They furnish comparatively cheap power and withstand heat better than horses. Further North, where the climate is somewhat cooler, horses are the main source of power. According to the Illinois Experiment Station, "Horse and tractor farms have about the same total costs for labor and power. In a survey lasting for ten years on 57 farms, there was a marked difference in amounts paid out in cash during the period. On farms operated exclusively with horses, an average of only $1,190 per farm was spent for horses and machinery, whereas on farms using tractors, an average of $2,880 was spent per farm for equipment. The difference in total cash outlay thus amounted to $1,180 per farm in ten years." A factor well worth remembering is that tractor fuel cannot be produced on the farm, where 20 bushels of corn, 30 bushels of oats, 11-2 tons of hay, plus pasture will keep the average mule or horse in excellent condition.

Mules may be classified as draft mules, farm mules, sugar mules, cotton mules, and mining mules, the farm mule being the more prominent in the South. Many mules find their way into United States Army service, where in spite of our mechanized equipment, they play an important role in carrying supplies through areas unaccessible to machinery. After the war is over, machinery may be more popular than ever, but the mule and horse will never totally disappear from our farms. Many small farmers will use the dependable cheap power of the horse and mule to attain the "Free and independent life" which only a self supporting farmer can live.

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Sugarcane Syrup in Laurens

County Agent C. B. Cannon reports a demonstration on his farm of Furman Finch. Owings, which showed the production of 129 gallons of sugarcane syrup from three-tenths of an acre. The cost was $45.73, and his syrup is valued at $129. "Mr. Finch's success in this project was due to planting his sugarcane near a small stream and using gravity irrigation", says Mr. Cannon. "This was the first time Mr. Finch has grown sugarcane. He conducted this demonstration because he had seen one of his next-door neighbors growing sugarcane through the cooperation of the county agent."
COTTON CROP INSURANCE

Cotton crop insurance is protection against loss from unavoidable hazards in that the insured grower will be paid in cotton all the cash equivalent price per pound for that part of his crop loss covered by insurance.

EDITOR'S NOTE

Farmers have been allowed to insure their home and car... And now he can insure his cotton against unavoidable hazards. These include drought, insects, plant disease, flood, wind, storm, hail, frost, fire.

Sam—Things look mighty bad, Bob.

Williams—Well, they do. The Japs have taken Singapore and gotten hold of some of the oil wells and nobody knows what's going to happen to the Burma Road and the Dutch East Indies.

Sam—If those Russians can just stop the Germans this spring everything will be all right.

Williams—But do you suppose the Germans will really attack Russia this spring. They may go below Russia, try to take India, and join forces with the Japs. They went into Russia to get oil and now that the Japs have control of some oil fields, all Mr. Hitler has to do is cross the southern part of Asia and get the oil.

Sam—Now, Bob, that ain't like you—lookin' on the dark side of things. They can't do that without takin' a lot o' men and then look out—Russia'll move in on Germany. Them Russians done said they're goin' to Berlin and they ain't had no cause to change their minds.

Williams—Sam, that's about as cheerful thing as I've heard lately. If Germany does move too many of her troops out, it will leave the home defense weakened and that will be the time for the Allies to strike them their most vulnerable spot.

Sam—I don't know as I follow you, Bob, but I shore would like to work my way to Berlin with the army.

Williams—We're both a little too old to be called, Sam. We'll have to do our part right here on the farm.

Sam—Yep, I reckon so—but I shor would like a crack at one o' them Germans er Japanese.

Williams—So would I. But I tell you, Sam, if it weren't for the older men like us raising food stuff and growing cotton and things—the soldiers and industrial workers 'd have to quit tomorrow. Yes sir, we've got our part to do in winning this war and it's not a small part either.

Sam—Talkin' about cotton, Bob. Are you going to plant much cotton this year?

Williams—Sure am—as much as the law allows. We need cotton as badly as almost any other war commodity, Sam.

Sam—Well, I guess it's the patriotic thing to do, but I'm a little dubious about planting cotton this year. You know I went in the hole with cotton crop last year.

Williams—But Sam—

Sam—And old man Johnson down the road there just plowed his cotton crop under rather than go to the expense of picking it. It was so poor.

Williams—Yes, but—

Sam—You know yourself, Bob, farmers lost money on cotton last year with the boll weevil and all—it was the shortest crop the nation'd had in years and years. I know you're going to say we've got to take a risk on account of the war if nothing else. Goodness knows farmers' er used to taking risks on their crops and I guess it's not so bad for a farmer with as much land as you've got—but for a small farmer like me it's going to go pretty hard. No sir—I may plant cotton—probably will—but I know that I'm taking a risk.

Williams—Haven't you heard about cotton crop insurance, Sam?

Sam—Cotton crop insurance—?

Williams—Sure—it's being offered to cotton growers for the first time this year by the Federal Crop Insurance Corporation, handled by the AAA.

Sam—You say, cotton growers can insure their cotton crop?

Williams—That's what I said.

Sam—Well, now, that's what I call a good business proposition.

Williams—Certainly. Insurance is an important part of any business. Ocean liners carry insured cargo—Most buildings and warehouses are insured against fire and damage of all kinds. And I have insurance on my car.

Sam—Why sure—you don't want to take chances on it being stolen or wrecked.

Williams—Well, Sam, don't you think it's about time the idea of insurance was used on one of the world's largest, and sometimes, riskiest businesses—farming.

Sam—Never had given it a though, but I reckon you're right. Tell me more about it.

Williams—The crop insurance idea has been used very successfully by wheat growers up in the Great Plains. This year—for the first time—cotton growers will be able to insure their crop.

Sam—This crop insurance—didn't you say it's being offered by the Department of Agriculture.

Williams—That's right. And the Federal Crop Insurance Corporation, I mentioned, has around 100 million dollars of capital stock—which means that
it’s in position to take care of all crop loss claims.

Sam—Well, Bob, how does this insurance work?

Williams—It’s like this, Sam. Folks who insure their crops have to pay a premium—just as they pay premiums on any other kind of insurance policy. But in the case of cotton crop insurance the premium is paid in the form of cotton, or the money that would buy that amount of cotton. Then, when crop losses occur, the losses are figured in terms of cotton, although actual payment is usually made in cash.

Sam—Then, as I get it—all cotton growers who take our crop insurance “kick in” small amounts of their crop in order to be insured. Then those who lose their crops—from some other cause than just plain laziness—are given a certain amount of this cotton that’s been collected from other farmers.

Williams—That’s it, Sam.

Sam—But suppose the cotton crop is short again this year—and the premiums collected from the farmers won’t cover the losses of those insured?

Williams—There you go, Sam—on the dark side again.

Sam—Well, I just wanted to know.

Williams—I’ve got the answer for you right here. The Corporation has 100 million dollars, just in case the government has to pay out more losses than the premiums it takes in.

Sam—Well, that ought to cover it all right.

Williams—You see, Sam, with this cotton crop insurance folks can grow cotton and be sure of a crop. This crop insurance practically removes the hazard of crop failure.

Sam—Bob, where can we get this cotton crop insurance?

Williams—At any AAA office. And, by the way, the AAA office can tell you all the details of the insurance plan. I don’t claim to know all about it—I can just give you a general idea.

Sam—Do you know what kind of loss this crop insurance covers?

Williams—It takes care of all unavoidable losses, Sam. Losses that result from drought, weevils attacks, diseases, floods, wind, or storms of any kind—even frost or fire.

Sam—Sounds like they’ve covered the bill.

Williams—They’ve just about covered everything except loss from laziness or plain cussedness—as you said awhile ago. That’s the reason it’s called an all-risk crop insurance.

Sam—Well now, Bob, suppose a fellow got hold of a poor batch of seed or maybe some one stole his picked cotton—would the Insurance Corporation make adjustments on losses like those?

Williams—I’m afraid not. Losses like those would be considered unavoidable—very definitely and wouldn’t be covered by the insurance. Of course, when the Department of Agriculture insures a person’s cotton crop, it does so assuming that the grower will do all he can to protect his crop from damage.

Sam—That’s fair and square. Here’s another thing, Bob, does the Crop Insurance cover the full value of the cotton crop?

Williams—Not the full value. The insurance covers either 50 or 75 per cent of the average yield. If a grower takes out 75 per cent insurance, his premiums will be a little greater than if he took out 50 per cent coverage—but in any case the premiums are small. They have to be used to pay crop losses. Premiums do not go toward operating the insurance system.

Sam—Well, I guess mighty few insurances offer 100 per cent coverage. Suppose a fellow wanted to try it out—could he insure just a part of his crop?

Williams—Sam, the Department of Agriculture says that if a grower decides to take out crop insurance, he must insure all of his crop that he has planted in that particular country. All or none. But if the same grower happened to have a planting of cotton in a neighboring county he wouldn’t have to insure that part of his crop.

Sam—I know a few fellows who rent their place, and I’m not sure that in every case the landlord would care to be in on this idea of crop insurance. How about a case like that, Bob?

Williams—That’s no problem. Any person—landlord, tenant, or sharecropper—can insure his share of a crop. It isn’t necessary for the other fellow to insure his part—get the idea?

Sam—I guess so. Sounds like a pretty good system—never heard of anything like it. By the way, Bob, how soon does the insurance go into effect?

Williams—Just as soon as the crop is planted and the grower signs his application. And the insurance remains in effect until January 21, 1943—that’s into next year. Then, if for any reasons the insurance should be extended a few weeks, arrangements should be made with the AAA office.

Sam—Well, Bob, I still don’t see exactly how a fellow pays his premium.

Williams—Let’s see. I said he paid a certain amount of cotton to the Government.

Sam—that’s right.

Williams—As a matter of fact, a grower may pay his premium either in cotton or in cash—or if the money of the cotton isn’t handy, the grower can sign a commodity note, which is simply an agreement to pay the Crop Insurance Corporation the amount of the premiums in cash or with an equal value of cotton. These commodity notes will be due about picking time when there’s plenty of cotton on hand.

Sam—in case of a crop failure what happens?

Williams—The grower gets paid for his loss as soon as the loss occurs. First of all an adjuster comes around. He and the farmer determine the Continued on page 14
BETWEEN THE

MARKETING CONFERENCE

A conference was held here at Clemson on marketing South Carolina farm products the weekend of March 6-7. About 250 officials of various agricultural agencies, farm leaders including officers and directors of all types of farm cooperatives, and representatives of purchasing agencies, railroads, fertilizer interests, and other business firms were present for the two-day meet. Talks and discussions featured the problems associated with marketing the principal farm products in South Carolina, particularly livestock, poultry and eggs, fruits and vegetables, seeds, grains, feeds, and miscellaneous products. Director D. W. Watkins of the extension service presided over the sessions.

---THE AGRARIAN---

ALPHA ZETA ACTIVE

The Alpha Zeta Fraternity enjoyed a discussion program on the subject “Courtship and Marriage” led by Dr. O. W. Warmingham, recently. During Religious Emphasis Week, the Fraternity met jointly with the Dairy Club for a period with one of the “trouble shooters”. Work has begun on the tabulation of the answers received from all alumni members, and it is hoped that the completed alumni news letter will be in the mail by the end of the month.

---THE AGRARIAN---

AG. FAIR DISCONTINUED

The Agricultural Fair has temporarily been discontinued until after the present emergency. The Ag. Fair Committee composed of T. E. Garrison, chairman, W. M. Hobson, and L. A. Williams met with the faculty advisors, and after carefully considerations of all the shortages due to this all-out war effort decided to abandon the Ag. Fair plans until after the war clouds have vanished. The Ag. Fair committee wishes to extend their regrets of the abandonment of the fair to the previous committee that staged such a successful fair last year.

---THE AGRARIAN---

RAISE MORE HONEY SHORTAGE OF SUGAR

Calling on every beekeeper in South Carolina to make every possible effort to raise more honey this year, Ned Prevost, bee specialist of the Clemson College Extension Service says:

“We must help in this wartime to raise some if not all of our sweets.” Pointing out that our heaviest honey flow comes early in the spring and that in most conditions the bees are not at the proper strength to gather this early honey flow, Prevost advises every beekeeper to get his bees in right condition to gather the poplar flow, which is a very heavy flow.

---THE AGRARIAN---

CLEMSON CANNED PEACHES ON EXHIBITS

In appreciation of the appropriation the general assembly allotted to the building of the cannery of Clemson, the horticulture department gave the legislature a sampling of some of their canned peaches. The peaches were served to the legislative branch of the state government in paper plates with saltine crackers for sampling. Each member of the general assembly was given a two pound jar of preserves with the Clemson colors of purple and gold on the labels of the cans.

---THE AGRARIAN---

NEW COURSE

There has been a new course added to the curriculum of agricultural students entitled, “Commercial Canning and Food Preservation”. Mr. L. O. van Blair, com, in charge of the new horticulture cannery, is teaching the course. The new course consists of two lectures and one laboratory a week. During the laboratory, the students actually carry out the canning and freezing processes.

---THE AGRARIAN---

SWEET POTATOES NOW BLOOMING

For the past three years, the horticulture department has been carrying on a sweet potato breeding program. In order to produce new varieties from true seeds, flowering and seed production must take place. Under field condition popular varieties of sweet potatoes do not produce flowers. The potato plants that are being used in this breeding program in the greenhouse have already started blooming.

---THE AGRARIAN---

EXPERIMENT WITH SWEET POTATOES

Dr. J. B. Edmund, associate horticulturist of the S. C. experiment station, and Mr. G. H. Dunkelberg, associate agricultural engineer, are working with electricity as a source of energy for sweet potatoes. They are planning to publish a bulletin on their experiment after this season.
PEANUTS FOR VICTORY

"Peanuts For Victory", is the title of a circular recently published by H. A. Woodle, Extension agronomist, through the Extension Service. Fats and oils are important materials in our present war economy. Our farmers must greatly increase their production of these essential supplies which have been depleted by reduced imports due to war conditions. The Farm War Program calls for South Carolina farmers to increase their production of peanuts by 350 percent in 1942. This means an increase from 20,000 acres in 1941 to 90,000 acres in 1942. By increasing the production of peanuts for oil, farmers can contribute materially to the national war effort, and at the same time they can benefit personally by the additional cash income.

——THE AGRARIAN——

SPEAKER

Dr. G. H. Aull, head of the department of agricultural economics and rural sociology, recently spoke to the Western South Carolina Torch Club in Greenville on the subject “Some Economic and Social needs of S. C.” W. S. C. T. C. is an organization composed of educators and professional workers in the western part of South Carolina. The membership is largely made from men of Clemson, Greenville, Spartanburg, Clinton, and Anderson.

——THE AGRARIAN——

Dr. Cooper Attended AAA Meeting at Capital

Dr. H. P. Cooper, dean of the school of agriculture, attended a meeting of the Southern Agricultural Deans and Directors at Washington, D. C. This meeting was called by the Agricultural Adjustment Administration for the purpose of securing coordination of the AAA and Agricultural Colleges and Experiment Station.

——THE AGRARIAN——

THESIS WORK

The Agronomy Department reports that 32 seniors are now engaged in elementary research and are making a very promising showing in their work. This would lead one to believe there is a distinct place for a graduate school at Clemson in agriculture.

ADJUSTMENTS NEED TO BE MADE—Dr. Collings

Dr. G. H. Collings, professor of soils, says, "that something is wrong when an acre of good land sells for $10 and costs the government $200 to have it cleared for an army base, as is reported to be the case in Blackstone, Virginia, Camp Area.

——THE AGRARIAN——

NEW PROFESSOR

Dr. H. T. Polk, associate agronomist of the experiment station, has replaced J. W. Jones as an instructor in the soils laboratory. Mr. Jones left after the first semester to report for duty at Fort McClellan, Anniston, Alabama.

——THE AGRARIAN——

EXTENSION SERVICE MEN TO ARMY

Recently, the extension service lost three of its staff members to the army. They were: G. H. Stewart, assistant agricultural engineer, W. L. Abernathy, Jr., supervisor test demonstration farms, and M. C. McKenzie, assistant agricultural engineer.

——THE AGRARIAN——

SPRING

A pair of tiny woolly lambs
Peep shyly from the dale.
A bluebird shrills his aria
That shames the nightingale.
A tiny, green-tipped tulip,
A shiny sprig of grass,
Proclaim to all that winter’s gone
And “Spring is here at last!”

——THE AGRARIAN——

Fine bonded writing papers can now be made from such cotton by-products as hull shavings and waste from ginning, carding and other cotton cleaning operations, through a commercial chemical, sodium chlorite, according to a paper manufacturer of Dalton, Massachusetts.

——THE AGRARIAN——

Mint—used as a flavor for toothpaste, gum and medicine is grown commercially on 1,742 farms in the United States—nearly all in southern Michigan and northern Indiana.
COTTON CROP INSURANCE
Continued from page 11

extent of the loss—50 per cent or 25 per cent, or whatever the loss happens to be. Then payment is
made on the basis of that assessment.

Sam—Well, this cotton crop insurance doesn’t
sound half bad.

Williams—It certainly will mean a lot to us
here in the Cotton Belt. You see, Sam, crop insur-
ance protects a farmer from losing his crop from
all unavoidable hazards—

Sam (CUTTING IN)—such as weevils, drought,
flood, storm, and disease—I get the idea—

Williams—and it guarantees a grower a fixed
cotton yield every year.

Sam—That ought to mean a steady income that
will come in mighty handy for farm expenses, taxes,
and house expenses.

Williams—Sam, the insurance makes it prof-
itable for a person to build up the soil whether
he owns or rents—there are hundreds of reasons why
cotton crop insurance is valuable to folks in the South.

Sam—You’re really sold on it, eh Bob?

Williams—Believe I am, Sam, believe I am.

Sam—Just one more thing. How soon do insur-
ance applications have to be in at the AAA office?

Williams—Glad you asked that question—that’s
important. The insurance applications must be made
before the planting starts. The actual final date
varies for different sections of the Belt. In most
places the deadline is sometime in March. We’ll have
to check with the AAA office for specific information.

Sam—Well, that crop insurance sounds like a
good thing, all right.

Williams—Personally, I think every farmer
should insure his cotton crop. Almost every cotton
farmer has had crop failures sometime during his
farming operations. And as far as I can see, this
cotton crop insurance is the only way a grower can
guarantee himself and his family that he’ll have cotton
to sell. There just isn’t any other way to protect
against crop failures except by crop insurance. Of
course, we aren’t looking for crop failure this year,
but it comes once in a while.

Sam—That’s right, we need to be prepared.

THE ANIMAL HUSBANDRY
DEPARTMENT
of
CLEMSON COLLEGE

Purebred
Berkshire Swine
Polled Hereford Cattle
Hampshire and Southdown Sheep
WHY MILK IN NUTRITION?
CHARLES A. JAMES, III '43

Today there is a nation wide effort to provide food which will aid in keeping our country in superior health. It is the consensus of opinion among nutritionists that milk and milk products are the foundation of an adequate diet for adults as well as growing children and invalids.

Milk has long been known as an important food, but the reasons for its importance have been found in comparatively recent times. Nature provided milk with the intention of supplying the new-born with the proper nutrients for best growth. Man has taken advantage of this "most nearly perfect food" for his own use.

The average protein content of cow's milk is 3.5 per cent. This protein is more complete than any other, as it contains all the essential as well as the nonessential amino acids. The high quality of this protein facilitates the successful use of milk by itself or as a supplement for the amino acids not found in cereals. High quality protein is known to be absolutely necessary for growth and maintenance of the body.

Although milk does not supply an adequate amount of iodine and iron, the remaining mineral content is sufficiently high to overcome the deficiency. Milk is perhaps man's best source of calcium. A quart of milk contains about one gram of calcium. Phosphorus and potassium are also found in sizeable quantities. Sodium and chlorine are found in medium amounts, while iron, iodine, copper, manganese, zinc, and sulphur are found in small amounts. Minerals are needed in the production of sound bones and teeth, and they are also necessary in other bodily functions.

When the dairy cow is fed the proper rations, she produces milk extremely high in vitamins A and G. Dr. H. C. Sherman considers whole milk as the most important source of vitamin A in American and European diets. According to Roadhouse and Henderson, milk is the most important source of vitamin G.

Variable amounts of the B complex and vitamin C are found in milk. Vitamins D and E are found in moderately large amounts. All these vitamins mentioned are necessary for protection against disease, for growth, and for maintenance.

Milk fat acts as a medium for fat soluble vitamins, and both the milk fat and the sugar lactose, act as a source of energy. Lactose also provides a food for Lactobacillus acidophilus, beneficial bacteria found in the small intestines.

Milk is not an expensive food for the amount of nutrients it provides. It is highly palatable and can be almost completely digested and assimilated. All those who are anxious to enjoy a most healthful life should by all means make milk a part of their eating habit.

A new rubber substitute, utilizing natural gas in its manufacture, is being developed by Dr. Eugene P. Schoch, director, University of Texas, Bureau of Industrial Chemistry.
Mr. L. M. Bauknight, teacher of Vocational Agriculture in Easley, S. C., was the first man to teach agriculture in a high school in South Carolina. Mr. Bauknight has now been at Easley for over twenty years and is one of the oldest and best teachers in the country.

A graduate of Newberry, he took graduate work in Vocational Agricultural Education so he could teach his chosen subject. Not being contented with this, he took graduate work at Cornell too. In 1941 Clemson had the pleasure of awarding Mr. Bauknight his B. S. degree.

From the first year that he came to Easley he has had a growing interest in farming problems; both the student and farmer viewpoints came under his close scrutiny. Only a few boys were interested in taking agriculture, when he first started teaching in Easley, but their interest soon grew and now he has a large class of boys taking the subject. There were soon too many students for one man to adequately teach so an assistant Agriculture teacher was employed to teach the eighth and ninth grade.

Mr. Bauknight organized a Future Farmer of America chapter at Easley early in his teaching career. The chapter participates in judging, speaking and other leadership activities.

He holds evening classes in all the communities around Easley. These classes are to introduce new and better farming methods to progressive farmers.

In recognition of his outstanding teaching and leadership qualities, he was, in 1937, awarded the distinction of being named “master teacher” of South Carolina. He has done much in helping the farmers increase crop yields and in the conservation of their soil. Many of his students have won prizes in cotton, hay, and other crop contests.

His winning smile and outstanding personality has won him an enviable spot in the hearts of many all over the South.

These are but a few of the many accomplishments of Mr. L. M. Bauknight a man that any publication would be proud to honor.

—THE AGRARIAN—

The College of Charleston is the oldest college south of Virginia and the oldest municipal college in the United States.
"What the world needs most of all is clean-minded, strong-bodied, educated young men."

A MIDWESTERN STATE COLLEGE DEAN

It's economical, labor-saving power-equipment like this Model B tractor and "40" All-Crop Harvester that Allis-Chalmers builds. It makes the family-farm independent of outside help and slashes production costs. When you buy A-C power, you buy power to fit the farm rather than get a farm to fit the power.

SET YOUR SIGHTS FOR THE FUTURE

There's no time like the present to give thought to the future. Next to farming itself, the business of supplying farmers with modern farm equipment is proving most attractive to many agricultural minded young men. An Allis-Chalmers dealership will keep you in close touch with agriculture, and offers great opportunities for service. It's a career which will enable you to contribute to independence and better living on the family size farm—through mechanization.

The post-war world of tomorrow is already beckoning to the clear-eyed, straight thinking, strong-bodied American youth of today. It has a job for you ... an opportunity that challenges the imagination of red-blooded young men, who are imbued with the fighting pioneer spirit of their forefathers.

To you men of tomorrow who love the soil, this challenge is particularly alluring ... it calls for vision and daring ... for planning, building, working toward a greater, more abundant agriculture than the world has ever known.

Power equipment for family size farms will be your ally. These family farms have always been the bulwark of American strength and character ... yet for too long they were havens of drudgery and physical hardship. Allis-Chalmers considers it a privilege to contribute to their liberation—by developing power equipment to fit the needs of the family size farm.

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Town__________________________ State__________________________
General view of Experimental Hot Bed

Appearance of cotton growing at P. H. 5.0 on Cecil Sandy loam

Appearance of cotton growing at P. H. 6.5 on Cecil Sandy loam
HORTICULTURAL PRODUCTS LABORATORY
Continued on page 6

and then allowed to ripen at somewhat lower temperatures a uniformly ripened and colored produce is obtained which may be handled satisfactorily.

The Horticultural Products Laboratory is 48 x 62 feet inside dimensions and has a concrete floor which is easily drained. Such a floor is important in the sanitation of a canning plant. The equipment includes a peeling machine, an exhaust box, two closing machines, four canning sinks, two cooking retorts, two cooling retorts, two steam jacketed preserving kettles, and an overhead electric hoist to handle the baskets of cans when they are placed in the retorts. The peeling and exhaust machines were designed and built by Prof. Van Blaricom.

There are only three peeling machines of the type used at Clemson in the eastern United States. The main advantage of this machine is that ripe fruit of high quality can be peeled without excess softening. For the peeling process, the halves are placed on a LaPorte belt which carries them first to a section of the machine that warms the skins by steam. While the skins are still warm, they are next carried to another section where they are sprayed with hot lye, which remains on the skins for approximately 25 seconds. Then the halves reach a third section of the machine, where they are sprayed with cold, pure water to remove all traces of the peeling and lye. From there they go to the canning sinks, where they are examined and graded before being placed in cans.

The consumer’s reaction to the peaches canned at Clemson last season was extraordinary, as shown by sales of the fruit. There seems to be no doubt that if all South Carolina-grown peaches were canned in a similar manner the entire crop could be disposed of and consumers could eat South Carolina peaches the year round instead of just during the fresh fruit season.

The coming season it is expected that further work will be done with peaches, including varieties not tested last year. Experiments with other South Carolina-grown fruits and vegetables will be in progress when peaches are not in season. Equipment for putting in a quick freezing cabinet and storage room is on hand also. It is believed that at least some fruits and vegetables, other than peaches, offer possibilities for commercial canning in South Carolina and the southeast. This State now imports most of its canned products from other sections, and if the Horticultural Products Laboratory can demonstrate that these products can be successfully and economically processed in South Carolina, it will be a real contribution to the welfare of the State. In 1940 California alone canned twelve million cases of peach products as compared with two hundred and fifty thousand cases for the rest of the United States.

The fact that California can sell canned peaches at a profit after shipping them across the continent should, in view of the experiments last season, encourage the development of a canning industry here.

THE AGRARIAN
Barley for the Feed Crop

From no acreage a few years ago, barley has been promoted as a needed crop in Sumter county until now it is rather generally planted. It appears to have won its place on the farms of the county because farmers like it. It fills a distinct need, and it makes profitable yields here. County Agent J. M. Eleazer reports that on 19 demonstrations the past year covering 163 acres the average yield was 29½ bushels per acre. "It has the value of corn, costs only a third as much per acre to produce, and we can make as many or more bushels per acre", he says. "With labor so scarce and high, the planting of this crop, which requires much less labor than corn, was enlarged in the fall."

THE AGRARIAN
In the Aiken area of S. C. is found the largest and purest sedimentary kaolin deposit in the United States.

PROTECT YOUR PEACH CROP
— with —

PAN PEACH SPRAY

PAN contains all the necessary ingredients to assure maximum protection.

SIMPLE TO USE

PAN is used at the rate of 8 pounds to 30 gallons of water and is put up in convenient units:—Cases of 4-6 lb. bags, cases of 2-16 lb. bags and cases of 4-16 lb. bags.

Leading peach growers throughout the country find PAN PEACH SPRAY the best answer to their spraying problems.

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- LESPEDEZAS: Certified Kobe, Korean, Tenn., and Common
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- CROTALARIES: Straita, Giant Straita, Late Spectabilis, & Early (Carolina) Spectabilis
- VETCHES: Hairy, Common, Augustana, & Mixed
- AUSTRAIN WINTER PEAS
- CRIMSON CLOVER
- URBANA INOCULANTS for All Legumes
- SOYBEANS COWPEAS
- VELBET BEANS
- CATTAIL MILLET for Dry-Weather Summer Pastures
- SEED OATS, WHEAT, RYE, BARLEY
- MEAT SCRAPE, FISH MEAL, PEANUT MEAL, 45% Protein
- ALFALFA MEAL
- DRIED BUTTERMILK
- THE PARAMOUNT LIME SPREADER (Trailer Type).

Ask for Literature, Name of Nearest Dealer, and Prices on

TENNESSEE BASIC SLAG, Carlots or Trucklots.
Green Fields Open New Frontiers for YOUTH

When mankind was young, in the pre-agricultural or pastoral period, the frontier was a new-found, far-off grazing ground. Even in the memory of men yet living the frontier was still geographical—forests laid waste by the woodsman's axe...virgin sod turning to golden fields of wheat and flax...everywhere the exploration and exploitation of added earth.

Frontiers for youth today are not in the narrow old earth, but in the boundless acreage of new ideas, new knowledge, new methods, new machines. Late discoveries in forage reveal new frontiers in soil conservation and livestock feeding. The new Case Sliced-Hay Pick-Up Baler, final stage in making air-conditioned hay by the Case System, opens one of these frontiers. It enables every-day farmers to capture and keep more protein and more total nutrients...more color and palatability...more vitamins and minerals...than ever before was feasible with field-cured hay. This compact, continuous-feed baler works with a small tractor and a total crew of three, takes seven-foot windrows at the same speed as mower and side-rake, builds bales that separate into sections as easy to feed as serving sliced bread.

New frontiers for youth are the fruit of free enterprise. Youth's chance is in progress. Only where men and money are free to dare, to risk loss in hope of gain, is there place for young ideas, young energy, young courage. Now, as a century ago, this company takes youth's part. J. I. Case Company, Racine, Wisconsin.

In 1842 the youthful Jerome I. Case began to furnish American agriculture with grain-saving machines. In 1942 the company he founded is celebrating its centennial with national ceremonials, historical pageantry, and educational exhibits. You are invited to witness these special events of the Case Centennial year. Look for local and regional announcements.

1842 CASE Centennial Jubilee 1942
ABOUT THIS AND THAT

BY THE EDITORS

An Open Letter To All Students

You are probably aware that Clemson College is infested with a multitude of pseudo-service and pseudo-named organizations that only serve as stepping stones to larger and still more useless fraternities that issue keys by the bushel, service by the gram, and then sit complacently aside with a smile of satisfaction and an air of accomplishment.

It is up to the students of Clemson to remedy this deplorable situation that reflects on every undergraduate. And it's up to the Club officers to insure remedial measures being taken.

Is your club a mecca for aspiring sophomores and juniors who cease to be active members as soon as keys have been awarded and officers elected?

What did your club do this year? Let me guess. There was a social, and open house, perhaps a Christmas dance—anything else? If not disband or reorganize, an organization that can't justify its existence has no business at Clemson, and at times like these least of all.

Many of our otherwise worthy organizations have become a laughingstock for the cadet corps because of their generosity in awarding tokens that should represent achievement and not merely membership. Is there any reason why keys should not be allowed to be presented to anyone but seniors since they alone can wear them?

This condition isn't confined to the Agriculture or Education school—it is a contagious malady that has all of us in its grasp. Since it is school wide let's unite as a school and stamp it out. . . NOW!

VICTORY PROGRAM

Launching a seven-point Victory Program by South Carolina farm boys and girls through organized 4-H clubs is announced by Dan Sawyer, state boys' club agent and Mrs. Harriett Johnson, state girls' club leader. Basis of the program was laid down in a discussion of civilian defense at a recent conference in Washington between 4-H club leaders in the Department of Agriculture and Mrs. Franklin D. Roosevelt.

The program calls for (1) interpreting to the community the four freedoms: Freedom of Speech, Freedom of Worship, Freedom from want, and Freedom from fear, (2) making every effort to produce and conserve needed foods in 4-H club projects, (3) saving for victory, collecting scrap metal, burlap, old paper, etc., (4) developing individual and community health, (5) learning useful technical and mechanical skills and volunteering for civilian defense work, (6) practicing the democratic procedure, and (7) understanding the social and economic forces at work through discussion groups and other organized activities.

The Program is a wartime revision of a seven-point program which 30,000 4-H club members and 1800 local 4-H club leaders in South Carolina have been carrying forward for the last year and a half.

Why?

Oconee County, one of the smallest and least prosperous counties of South Carolina, last year refused twenty-five thousand dollars. This sum of money was every bit turned down by Oconee farmers, and God knows they can ill afford to lose even one penny. Perhaps these farmers do not even know of their loss, but with eighty professional workers in agriculture in the county, each farmer should have been contacted and assisted in saving his share of the lost fortune.

Farmers in Oconee County probably will say, "We lost $25,000? Shucks, we haven't had that much money." True, but this money was lost through negligence in failing to take advantage of government soil building payments under the AAA Soil Building program.

Let's expand this sum to cover the entire state. There are forty-six counties in South Carolina. Assuming that each county lost approximately the same amount as Oconee, the total loss to South Carolina farmers was $1,150,000! That sum is greater than South Carolina's allotment from the Federal government for agriculture teachers. Had they done nothing other than persuade farmers to take full advantage of these payments, their salaries would have been fully earned. $1,150,000 would be one dollar for each man, woman and child in the state. $1,150,000 equals the total amount of money appropriated the University of South Carolina, The Citadel, Winthrop and Clemson College for one year by the state legislature. The refused soil building payments would have aided in educating our youth.

On whom does the responsibility for these losses rest? On the teachers of vocational agriculture, on the county agents, on you, you, and you—the agricultural leaders of the state. And $1,150,000 was not the only loss, because the soil lost fertility instead of gaining it; yields have decreased instead of increasing and the average farm income in South Carolina has stuck near its $240 level. Snap out of it and pay your own salary by helping the farmer get his just deserts.
SWEET POTATO DISEASES
Continued from page 4

the potatoes will be selected from the field by inspecting closely for evidence of wilt, black rot, and scurf. It has been found desirable to let the potatoes remain in the field from one to two hours before picking. Those selected and carefully handled are stored separately for seed potatoes. Storage conditions will be taken up last.

The most disease free of the previously selected potatoes are dipped, for at least eight minutes and not longer than ten minutes in a 1-1000 (1 ounce in 8 gallons of water) solution of mercuric chloride just before being bedded the last of March and first of April. This operation, rendering the potatoes poisonous as food, kills the scurf, wilt and black rot which may be present on the outside of the potato. Semesan Bel has been recommended by some manufacturers for the disinfection, however, the South Carolina Experiment Station has not found it, to be as effective as the mercuric chloride treatment.

Bedding is done in new soil, the upper four or more inches in which the potatoes are located having been treated with 1-3 pound of hydrated or builders lime per square foot bed area. This practice, recommended by the South Carolina Extension Service, aids in the control of various seed bed rots with a resulting increase in the number of slips obtained per bushel. The old seed bed soil may be used when properly sterilized with steam.

Slips are taken from the bed, all those appearing diseased discarded, and the desirable ones set in a field where not one potato has been grown for at least three years. Manure used in the field can sometimes cause serious infection even though potatoes haven’t been planted on the soil for some time. In the Coastal Plains at the Edisto Experiment Station, it was observed that a greater per centage of number one’s free from diseases were obtained from vine cuttings than from slips. The relatively shorter growing season in the Piedmont prevents the production of an entire crop from vine cuttings, new seed potatoes should be obtained in this way because they are usually more free from disease than otherwise. With careful selection, the use of vine cuttings, disinfection of seed potatoes, and crop rotation, field diseases can be controlled.

Now, what shall be done about the control of the storage house diseases? Proper curing and storage temperatures and relative humidity is usually the answer to these rot problems. The old method of curing, reported by some as satisfactory, used a temperature of 80 to 85 degrees F., for from 7 to 15 days with all possible ventilation. At present, the U. S. D. A., recommends a temperature of 80-85 degrees F., humidity of 90%, and only enough ventilation to prevent the condensation of moisture on the walls.

Under these conditions, the wounds and bruises on the potato heal very quickly, thus preventing the entrance of the soft rot organism. After the curing period is over, the storage house should be held as close to a temperature of 55 degrees F., as possible and at a relative humidity of 85 to 90%. Such storage conditions will very appreciably check the spread of the black rot.

---THE AGRARIAN---

Education With Jersey Insurance
Continued from Page 5

Every year we have been successful at the fairs. Two years we took our cows to three fairs. Most of our money has gone back into the herd. This past show season we won two fourths, five thirds, fourteen seconds, twenty seven firsts and six championships.

We started selling grade “A” milk in 1938, and hired a herdsman. The next year it became necessary to add another man to assist him.

The Annual Jersey Sale is held at our home town, Newberry, S. C. As I was ready to enter college in the fall of 1940, we placed four heifers in the sale. The returns from these four heifers paid my expenses at Clemson the first year. My brothers had the full responsibility of raising the calves while I was away at college. As another brother was entering Clemson in the fall of 1941, and the expenses of the two of us would amount to quite a sum, we had to place nine head of heifers and first-calf cows in the Annual Sale for that year. We had reason to be very much pleased with the returns from this sale. The nine head sold for $2,025, for an average of $225.00 each. One of our heifers almost topped the sale, selling for $340.00.

Last fall two of my brothers were members of the dairy judging team which won first place in South Carolina. As a reward for placing first in the state they were given a trip to the National Dairy Show. My father and I also made the trip. This was one of the most educational trips that I have ever taken.

Our Jersey Insurance policies are maturing and paying dividends, besides helping to change our farm from a one-crop cotton-farm into a dairy farm. Our January 1942 inventory shows Eighty-five head of registered Jerseys.

Since the beginning of our Jersey Insurance policy another boy has been born into our family, and we have already purchased his own particular “insurance cow-policy” although he is not yet two years old. In times like these when we can be certain of few things, we are quite confident of this—that our little brother will earn his “dip” as we are now earning ours, along the “Milky Way.”

---THE AGRARIAN---

Producing vegetables at home puts the food supply right where it is to be used. It doesn’t take any freight cost or trucks to move the food to those families and transportation is needed badly for other things these days.
The Tax Situation

“Not only has tax delinquency deprived units of government of millions of dollars of public revenue, but it has exerted a depressing influence upon property values and, unless checked will gather momentum each succeeding year.”

So declares Dr. Aull, head of the Agricultural Economics Department of the South Carolina Experiment Station, in Experiment Station Bulletin 337, “The Nature and Extent of Tax Delinquency in South Carolina.” The publication, now ready for free distribution, may be had from the Publications Department of Clemson.

“The study reported in the bulletin indicates that tax delinquency has become chronic in the case of many farms and is acute at some time or other on three out of every four of those listed for taxation,” says Dr. Aull. “The average farm property in the state is delinquent one out of every two years.”

“The situation is distressing because it is evidence of widespread and gross inequalities in the assessment of property for tax purposes,” Dr. Aull continues. “If farm properties were equitably assessed, one of the most important causes of tax delinquency would be removed.”

The bulletin reports on the trend of delinquency, as to properties, acreages, and taxes, frequency of delinquency, characteristics of delinquent and non-delinquent properties, the current status of delinquent properties, with some conclusions and suggestions on bringing about improvements in tax delinquency.

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**WASH DAY**

Git up nigger! Ain’t you shame?
Sittin dere in dat col’ shade.
Here Ise washin’ clothes agin.
’N de crop ain’ nere don’ made.
Ain’t yuh see dat grassy corn?
Caint yuh see dem weed?
See dat hoe ‘gainst de baln?
Aint yuh mule need feed?
Il’yer yuh chillum. Come ’ere quick!
Caint yuh hear me squall?
Ain’t yuh gonna hep yer ma.
Washin’ clothes n’all?

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**MILK IS VITAL . . . !**

... for HEALTH
... for SUCCESS
... for VICTORY

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**CLEMSON COLLEGE CREAMERY**

(This ad Prepared by C. C. Graham)
AMERICANS ARE RE-DISCOVERING THEIR AMERICA!

Today

A wonderful new world—this American treasureland which Columbus saw from the deck of his flagship in 1492. A wild and virgin land—a land of immeasurable hardship, and of hope!

Here the foundations of liberty were laid in the centuries that followed. Here the founding fathers created a new miracle of government. The year was 1776, and they wrote down a heaven-sent dream and wrought it into fact.

They bequeathed to us the United States of America, and their sons and grandsons made it great and strong.

Had we forgotten, in recent years, to be grateful for our American way of life? Yes, most of us had. But now that we stand in peril of losing it—we remember. Now that we must fight with all that we have and are, to hold that heritage, we look back on the hard history that lifted us up on the heights. And we review the later years that have brought us to this bitter hour.

Today, in 1942, the mists are clearing from our vision. The Nation is at war. Americans are re-discovering their America.

Now, as in the days of the pioneers, Agriculture is the foundation of American security and of American survival. In the fight for Victory the man who really fights leads all others in our devotion. And here, back home, no man’s job is greater than the farmer’s job. He must raise the food that freemen need.

International Harvester pledges that its utmost effort shall be rendered—through its factories and the men who build its products, and through the dealers who service and sell its machines—to the end that the people of America may win their way to early victory and peace!

International Harvester Company
180 North Michigan Avenue
Chicago, Illinois

“We, the INTERNATIONAL Dealers and Servicemen of America, will give our best to help keep farm equipment, old and new, on the job till peace is won!”

International Harvester Service...Farm Equipment...Parts
AND SET UP THE CAMELS, TOO

... Whether you’re in there bowling yourself—or watching — nothing hits the spot like a cool, flavorful Camel.

TALK ABOUT your wood-gettin’ wonder! You’re looking right at him—"Low" Jackson of St. Louis, 1941 All-American, captain of the world’s match game champions, and possessor of one of the highest-scoring hooks in bowling today. Light up a slower-burning Camel and watch this champion in action.

THERE’S A SWIFT FLASH of the arm. The snap of a wrist. The ball whirls down the alley. Take a good long look at the way "Low" Jackson tossed that one—that’s an All-American hook. Close to the gutter. Three-quarters down, she starts to break—straight for the slot. Watch it now—it’s—

C-R-A-S-H! A perfect hit! The very sound of ‘em falling sets you tingling all over. Like a homer with the bases loaded... a hole in one... like the full, rich flavor of a certain cigarette, it never fails to thrill. No matter how much you smoke, there’s always a fresh, welcome taste to a Camel—for Camels are milder with less nicotine in the smoke.

The smoke of slower-burning Camels contains

28% LESS NICOTINE

than the average of the 4 other largest-selling brands tested—less than any of them—according to independent scientific tests of the smoke itself!

The SCORE-BOARD tells the story. More smokers prefer Camels...smokers like Lowell Jackson to whom mildness is so important...smokers who want a flavor that doesn’t tire the taste...smokers who want more out of a cigarette than something to carry in hand or pocket. You’ll never know what you’ve been missing until you smoke Camels.

TWENTY TIMES "Low" Jackson (above) has rolled the perfect score (300). Every time he lights up a Camel he smokes with the assurance of modern laboratory science that in the smoke of milder, slower-burning Camels there is less nicotine (see below, left). Get a package of slower-burning Camels today, and smoke out the facts for yourself.

Camel — the Cigarette of Costlier Tobaccos

*B. J. Reynolds Tobacco Co., Winston-Salem, N. C.