

TO ESTABLISH A DAIRYING AND LIVESTOCK EXPERIMENT STATION IN COOPERATION WITH THE STATE OF SOUTH CAROLINA, NEAR COLUMBIA, S. C.

---

FEBRUARY 17, 1927.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed

---

Mr. HAUGEN, from the Committee on Agriculture, submitted the following

REPORT

[To accompany H. R. 17138]

The Committee on Agriculture, to whom was referred the bill (H. R. 17138) authorizing an appropriation to enable the Secretary of Agriculture to cooperate with the South Carolina Agricultural Experiment Station, having considered the same, report thereon with a recommendation that it do pass.

The bill reported herewith is as follows:

[H. R. 17138, Sixty-ninth Congress, second session]

A BILL Authorizing an appropriation to enable the Secretary of Agriculture to cooperate with the South Carolina Agricultural Experiment Station

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That there is hereby authorized to be appropriated the sum of \$50,000 to enable the Secretary of Agriculture to cooperate with the South Carolina Agricultural Experiment Station and/or other agencies in making investigations and experiments in dairying and livestock industries and of the problems pertaining to the establishment and development of such industries, including cropping systems, soil improvement, and farm organization studies of such industries, and for demonstration, assistance, and service in developing the agriculture of the Sand Hill region of the Southeast.

A dairying and livestock experiment station such as is proposed in this bill, in cooperation with the State of South Carolina will perform a useful service in teaching and assisting the farmers not only in the State of South Carolina but in several adjoining States in the development of livestock and dairying industries and in the promotion of diversified farming. The need for the establishment of the proposed experiment station herein contemplated grows out of the need of establishing dairying in the South and demonstrating the growing of feed crops and other crops, so as to bring about

diversification in these States. The localities within which this Norfolk fine sandy loam is found may, for convenience, be divided into two principal regions. The first of these is the Middle Atlantic section, including the States of Virginia and North Carolina. The second is the South Atlantic section including South Carolina, Georgia, and northern Florida.

The following paragraph extracted from a bulletin issued by the Hon. James Wilson, Secretary of Agriculture, on August 11, 1911, will give additional information as to acreage, etc.:

THE NORFOLK SANDY LOAM—GEOGRAPHICAL DISTRIBUTION

An aggregate area of 2,000,850 acres of the Norfolk sandy loam has been mapped in the various soil surveys along the Atlantic and Gulf coasts. The type has been encountered in 40 different areas located in 10 different States. It extends from New Jersey on the north through the entire Atlantic coast region and westward into Alabama. Small areas have also been found in Mississippi and in Texas, but by far the greater part of the type has been encountered along the Atlantic coast and in the eastern Gulf coast region. It is probable that when further soil surveys are made in this general region considerable additional areas of the Norfolk sandy loam will be encountered. It is probable that there are not less than 15,000,000 acres of the type in the lower lying section of the Atlantic and Gulf Coastal Plains.

In further explanation of the need of such experiment station and the advantages and benefits which we believe may be derived from the work to be carried on jointly between the Department of Agriculture of the United States and the State of South Carolina, we herewith print a letter from Dr. H. W. Barre, director of research, Clemson College, South Carolina, which is the agricultural and mechanical college of this State.

THE CLEMSON AGRICULTURAL COLLEGE,  
*Clemson College, S. C., February 7, 1927.*

Congressman H. P. FULMER,  
*House Office Building, Washington, D. C.*

DEAR CONGRESSMAN FULMER: Your letter of the 1st instant came while I was away attending the annual convention of the Association of Southern Agricultural Workers in Atlanta.

Since the Secretary of Agriculture has recognized this as an emergency measure, I imagine you will want to have something to say in your argument relative to the general agricultural situation in the South at this time and the losses which we are sustaining in producing cotton. In this connection it is important to know that while we have had fairly good yields of cotton throughout two-thirds of the State for the past two years, our average yields are still below the point where we can grow cotton at a profit at the present price. The average yield for this State for 1926 was about 180 pounds. The investigations which we have made indicate that at the present price cotton can not be produced at a profit in this section where the yield is less than 400 pounds. In the sand-hill section of the State the average yield is still lower than the average for the State as a whole. In Lexington County, for instance, the average was only 147 pounds, in Aiken 153 pounds, and in Richland County 140 pounds. It is evident, therefore, that the agriculture of this region is in a very serious condition.

• With the present system of agriculture, of course, the main crop is cotton, and this is being produced at a very material loss. The only possible way out, it seems, is diversification, which means more food and feed crops and production of fruits, vegetables, and livestock. You, of course, realize that this area is well suited to such crops as peaches, dewberries, sweet potatoes, and melons, and developments are already taking place along these lines. What we need, of course, is an experiment station in this region to point the way toward better utilization of the land and to work out methods for producing these crops profitably. You probably have available the statistics so far as land area and utilization is concerned, but I am quoting these here, thinking that this might be a convenient form in which to have them.

Speaking of South Carolina alone, the sand-hill section comprises an area of 2,500,000 acres, 1,500,000 of which is in farms. The whole coastal plain section of South Carolina, of course, is made up very largely of sandy soils much like the soil of the typical sand-hill area. The coastal plain region of the State comprises an area of nearly 13,000,000 acres. This, of course, is of South Carolina alone. North Carolina, Georgia, and Florida each has an area approximately as large as South Carolina in this soil type. Besides this, there are large areas in Virginia and Alabama similar to our sand-hill sections. Therefore there are probably 10,000,000 acres of typical sand hill lands in the southeast similar to that upon which this experiment station will be located. In addition to this, there are probably 50,000,000 acres in the coastal plain section of the South which is largely made up of sandy soil types. It is also interesting to note that in the coastal plain area of South Carolina there are now nearly 300,000 acres of crop lands that are idle. A large part of this is in the typical sand-hill section.

In order to make this land productive it seems absolutely necessary that we work out cropping systems and farm practices which will enable our people to produce commodities which can be produced and sold at a profit. This area is, of course, within easy reach of the large cities of the East and is the logical place for developments along the lines of fruit, truck, and livestock.

The livestock features are, of course, exceedingly important. There are thousands of farms in South Carolina without a milk cow. The South Atlantic States imported in 1925, 141,000,000 pounds of butter valued at \$56,000,000. Imports in South Carolina alone, as indicated by careful surveys which were made in the Greenville, Florence, and Columbia areas, indicate that our annual imports of butter amount to between 5,000,000 and 8,000,000 pounds. The amount of canned milk shipped into the State is in excess of the amount of butter which we buy from outside and probably amounts to 10,000,000 pounds annually.

A big factor, of course, with regard to the dairy situation is the fact that our people are not being supplied with the milk which is so badly needed to nourish them properly. The cows which we have in South Carolina are estimated to produce only about enough milk for each individual to have 14 gallons per annum, when the average annual consumption in the United States is 54 gallons, so you can see that we are very short of what we ought to have. Anything, therefore, that will increase the dairy business or will increase the number of milk cows per farm in South Carolina will not only add to the farm income but will greatly benefit our rural population from the standpoint of better nourishment.

There is every reason, of course, why dairying should go hand in hand with cotton production. The production of cottonseed meal in 1925 was 2,000,000 tons. The cottonseed meal from the cotton crop contained 242,000,000 pounds of nitrogen, which is, of course, the fertilizer element that is so badly needed in our soil improvement. It is estimated that 80 per cent of this cottonseed meal was fed outside the Southern States, which means that \$48,000,000 worth of soil fertility went out of the South last year in cottonseed meal. This can be saved to the South by feeding dairy cattle on southern farms. Protein, which is the principal feed nutrient in cottonseed meal, is a thing that is needed most in feed as well as in fertilizer. We should also realize that about 83 per cent of nitrogen fed to dairy cows in cottonseed meal may be recovered in the manure in the best condition for plant food. There is every reason, therefore, why we should feed our cottonseed meal to dairy cows and use the manure to build up the impoverished soils of this region.

There is every reason to believe that South Carolina can be developed into a great dairy section. We have long growing seasons with an abundance of rain. All that we need to do is to build up our soils and to work out crop systems which will provide ample feed for cattle.

From the standpoint of our staple crops we must enrich our soils to the point where we can make larger yields per acre or we are going to lose our cotton industry to Texas and the other Western States. Diversification and livestock farming seem to be the logical way to build up these soils to the point where we can compete with the western part of the belt. This whole southeastern section of the country needs a new system of agriculture. This is particularly true of the sand-hill section. There is no experiment station now in the sand-hills in any of the States. The fact that South Carolina and the Federal Government have worked out plans for a cooperative enterprise is certainly encouraging. Research work done in the sand hills would be of value to all of the States in this section. It would point the way toward development of this entire section through production of fruit, vegetables, and diversified agriculture in which live-

stock would assume an important place. Congress has just appropriated \$10,000,000 to fight the corn borer in the North and Middle West. It would seem that something might be done for the Southeast. This is an enterprise which would certainly result in time in great improvement in the whole agricultural outlook of our people.

I might summarize the needs for more dairies in South Carolina and in the Southeast generally by saying that they are needed, first, to provide the people with more milk for home consumption; second, to utilize crops resulting from diversified agriculture by furnishing a profitable market for these; third, to put farms on a cash basis by eliminating the wasteful credit system so generally practiced in this territory; fourth, it will help to maintain and increase soil fertility; fifth, it will furnish employment for labor throughout the year; sixth, it will furnish a home market for cottonseed meal, a valuable by-product of cotton production.

I have gotten this statement together very hurriedly and if it does not include all the features that you had in mind or if I can in any way be of further service to you, I hope you will not hesitate to let me know.

Very truly yours,

H. W. BARRE, *Director.*

This project will contain 900 acres of land to be furnished by the State of South Carolina to be used jointly with the Federal Government for the purpose set forth in a letter from the Secretary of Agriculture herein printed:

DEPARTMENT OF AGRICULTURE,  
*Washington, January 26, 1927.*

Hon. H. P. FULMER,  
*House of Representatives.*

DEAR MR. FULMER: Reference is made to your letter of December 11 and to the conference on January 11 concerning the bill (H. R. 7266) to provide for the establishment of a dairying and livestock experiment station at or near Columbia, S. C., which was reported out of the House Agricultural Committee, June 18, 1926.

The present policy of the department is, wherever feasible, to concentrate basic research work in dairying and animal husbandry at our experimental stations already established, such as the ones at Beltsville, Md., and Miles City, Mont., where problems that are national or regional can be effectively dealt with at a minimum of expense. For research or demonstrations other than those which are basic in nature and of national or regional scope it is our feeling that since each State now has its own experiment station, college, and extension workers for promoting agriculture along lines of local needs, these agencies should be the ones upon which such duties should fall.

As you know, however, recently we have been giving the most careful consideration to the conditions existing in the cotton-producing States of the eastern seaboard, and we feel that as a matter of national agricultural policy it is of the utmost importance that every possible encouragement be given to the promotion of diversification in these areas, which are now so largely devoted to one-crop farming. The situation is regarded as emergent at the present time, and when emergent conditions exist the opportunity is most favorable for constructive changes in the type of agriculture in a given region.

The station proposed in this bill to be established at or near Columbia would serve a wider territory than the one State in which it is proposed to locate it, making it regional in scope and usefulness if it were authorized. A station established near the center of this general region could be useful in working out livestock and dairying problems, including the growing of the best crops for livestock under the existing conditions of soil and climate and should be of great assistance in furthering the program of diversification to which both the Federal and State agencies are committed.

The South Carolina Agricultural and Mechanical College recently started a substation at Pontiac, near Columbia, in the sand hill region. They are planning to develop this as rapidly as available funds will permit. Whatever we do should be done in cooperation with them.

I believe such a station, if established, should be at the start devoted to experiments and demonstrations in crops and cropping systems adapted to the sand hill areas as a basis for dairy farming, swine husbandry, and poultry production. The establishment of such work in this general cotton-growing region would,



perhaps more than any other factor, have a tendency to hasten the time when the cotton farmers could derive a part of their income from livestock.

I would not favor the establishment of this proposed station, however, unless satisfactory arrangements could be made with the State involving State cooperation, and from the correspondence you have submitted and other facts presented it appears that this would be possible. If, therefore, proper cooperation could be arranged for and sufficient land at Pontiac is available I believe the Government would be justified in establishing the station in cooperation with the State college at that point. Crop production for livestock is the basic problem in this area and must precede any development of dairying or other phases of the livestock industry. A small dairy unit to start with could be carried with the study of the forage crops and the cropping systems. By combining our resources with the State much more can be accomplished than by working alone. Under the conditions we do not feel that it would be wise for the department to establish an independent station.

Under the plan I have outlined, involving a cooperative arrangement with the State, it should not be necessary to have a Federal appropriation of as much as \$100,000. It is believed that \$50,000 would be sufficient for this purpose. A suggested draft of a bill which would provide for suitable cooperation with State agencies is submitted for your consideration, as follows:

A BILL Authorizing an appropriation to enable the Secretary of Agriculture to cooperate with the South Carolina Agricultural Experiment Station

There is hereby authorized to be appropriated the sum of \$50,000 to enable the Secretary of Agriculture to cooperate with the South Carolina Agricultural Experiment Station and/or other agencies in making investigations and experiments in dairying and livestock industries and of the problems pertaining to the establishment and development of such industries, including cropping systems, soil improvement and farm organization studies of such industries, and for demonstration, assistance, and service in developing the agriculture of the sand hill region of the Southeast.

This matter has been submitted to the Budget Bureau, as required by Budget Circular No. 49, of that bureau, and the Director of the Bureau of the Budget has advised me that the recommendation of the department, as outlined in the foregoing, is not in conflict with the financial program of the President.

Sincerely yours,

W. M. JARDINE, *Secretary.*

This station when established will be the only station located on this type of soil and will be of great benefit not only to the State of South Carolina but to the whole seaboard section.



Resolved, that the Board of Directors of the Bank of America do hereby authorize the President of the Bank to execute and deliver to the Secretary of the Board of Directors of the Bank of America a certificate of incorporation for the Bank of America, National Association, in conformity with the provisions of the laws of the State of North Carolina, and to do all such other and lawful acts as may be necessary to carry out the purposes of this resolution.

Witness my hand and the seal of the Bank of America, this 15th day of January, 1911.

W. M. ...

The Board of Directors of the Bank of America, National Association, do hereby certify that the foregoing is a true and correct copy of the resolution of the Board of Directors of the Bank of America, National Association, passed on the 15th day of January, 1911.

W. M. ...

This station report established will be the only station of this type of kind will be of great value not only to the State of North Carolina but to the whole Southern section.