

The Experiment Station Co-operative Work.

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Mr. President, Ladies and Gentlemen:

In beginning my talk on the Experiment Station co-operative work I cannot do better than to show how the purposes for which the Experiment Station was founded is frequently misjudged, and in many quarters not understood. So much work has been done with the Horticultural Society, as a society, and with the different members of the Society, personally, that nearly everyone in my hearing is probably better informed than the best informed outside the Horticultural Society. In 1887 Congress provided for the Experiment Station by passing the Hatch Act. To show concisely what was intended by the Hatch Act I will quote you Section 2 verbatim:

"Section 2. That it shall be the object and duty of said Experiment Stations to conduct original researches or experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and

forage plants; the composition and digestibility of the different kinds of food for domestic animals; scientific and economic questions involved in the production of butter and cheese; and such other researches of experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States and Territories."

This, as you will see, makes a very clear cut statement of what the funds are to be used for. Thus, things which are not provided for in this Act are necessarily not contemplated and not permissible under it. The Congress, previous to the one in session at the present time, passed a law requiring the Secretary of Agriculture to supervise the experiments much more closely, and also co-ordinate the experiments in different States.

During the past year Congress has passed the Adams Act which will prove of great benefit to the Experiment Station, and directly, to the people of Florida. In this Act an additional \$5000 are appropriated, which is increased by \$2000 annually, until it shall reach \$15000. This fund is more closely guarded even than that of the Hatch Fund. I quote you from this Act which appropriates the fund.

* * * "to be applied only to paying the necessary expenses of conducting

original researches or experiments bearing directly on the agricultural industry of the United States, having due regard to the varying conditions and needs of the respective States and Territories."

The term, "original research," might be a very general one were it not for the fact that the Director of the Office of Experiment Stations is held responsible for the interpretation of the expenditure of this fund. The Director of the Office of Experiment Stations has probably had more experience in Experiment Station work than any other living man, and consequently is able to tell at a glance whether a proposed piece of work is original research, or whether it is a piece of demonstration work, or, what not.

In interpreting this law the Secretary of Agriculture has issued a circular letter in which he states:

* * * "Accordingly, expenses for administration, care of buildings and grounds, insurance, office furniture and fittings, general maintenance of the station farm and animals, verification and demonstration experiments, compilations, farmers' institute work, travelling, except as is immediately connected with original researches in progress under this Act, and other general expenses for the maintenance of the experiment stations, are not to be charged to this fund. The Act makes no provision for printing or for the distribution of publications, which should be charged to other funds."

I have thus taken considerable time to show you exactly what are the essential parts of the laws founding the Experiment Stations, and also what limitations are placed upon us. I do this from the fact that there seems to be a general misinformation as to what the office and privilege of the Experiment Station is.

Even our legislators who assemble at Tallahassee bi-ennially and even people higher in authority have had erroneous impressions in regard to the essential parts of the law.

The Hatch Act was passed in 1888 and became operative in the same year. This makes the experiment station a little over seventeen years old. During this time it has published 84 bulletins and several annual reports. Of the 84 bulletins 46 are devoted to horticultural work directly, and portions of the remaining 38 are also devoted to horticultural work; and also a large part of many of the annual reports. From this you will see that the horticultural interests of the State have been well looked after. This is especially so in more recent years. Taking the last ten years we find that 36 of the bulletins are devoted to horticultural matters. Most of these being fully illustrated. In the last five years 22 bulletins have been published on horticultural matters. Some of these have been profusely illustrated. If no other bulletins had been published from the Experiment Station within the last five years than those published on Horticultural subjects, the requirements of the law, so far as publications were concerned, would have been more than met.

The matter contained in these bulletins in the most cases, has received world-wide attention.

The pineapple growers of Florida have at their disposal the most thoroughly reliable scientific publications on their special subject that has been published anywhere in the world. Within the present fiscal year two new bulletins on this subject have been issued which many of you will find on your tables when you reach home from this meeting.

From the beginning the Experiment Station has had an appropriation of \$15000 a year. During the seventeen years of its life the State of Florida has not appropriated anything toward equipment and maintenance of this institution. Consequently what it has done has been accomplished entirely on Federal appropriation. This, of course, is much to be regretted, especially from the fact that, if, additional funds from the State had been accessible it would have been possible to have erected very suitable buildings and to undertake much more elaborate and useful experiments than it has been possible in the present conditions. Frequently in planning experiments these have had to be altered in such a way as to make it possible to meet the expenditures under the conditions imposed by the Hatch Act. Another serious condition that has arisen is the fact that the amount of appropriation has not been increased since the inauguration of the experiment stations and yet the living expenses and supplies have nearly doubled in prices. In some cases these have more than doubled in price. This is especially true of labor in the vicinity of the Experiment Station.

CO-OPERATION.

Our most successful experiments that have been carried out by the Florida Experiment Station the State has co-operated with the Experiment Station. Among the first of these co-operative experiments was the one conducted in the fertilization of pineapples on the field belonging to Mr. T. V. Moore, at Jensen, Florida. In this experiment Mr. Moore furnished the field and took care of it; while the Experiment Station furnished the fertilizer and made the application.

The crop was the property of Mr. Moore, excepting that the Experiment Station made use of as many of the ripened pineapples as might be needed for scientific work. This piece of work proved to be so thoroughly successful, that in spite of the fact that the writer was roundly criticised by members of the Board of Trustees, they found themselves in a position where his successor was permitted to carry out the exact line of work after a year or two of interruption.

In this connection allow me to say that the members of the Florida State Horticultural Society have always given the Experiment Station their generous sympathy, and in every way pointed out to them, have co-operated and helped us along in the most cordial way. This generous co-operation has not been merely that of words of encouragement, but in actual help in the field. Our scientific staff is not only welcome but requests and importunities are constantly coming for expert help and advice in the field. Whenever possible we respond promptly and cheerfully. There are times however when the conditions at the Experiment Station will not permit us to be absent. It shows that a very great interest is being taken at the present time in scientific information, and that the latest and most improved methods are sought.

NEEDS OF THE EXPERIMENT STATION.

The first requisite of the Experiment Station is to have your hearty sympathy and support. These you have given very generously, though, possibly, not always in the most effective way. We have at times lost some of our most active and energetic men, that could have been saved to us if every member of the horticultural

Society had demanded of the Trustees that the resignation be not accepted.

That we have no support from the Legislature to supplement the funds of the Experiment Station has already been indicated. There is however, a very general misconception on this point, not only by the Legislators, but also by the Agricultural constituents in the State. The Experiment Station is frequently importuned by the Agricultural people to hold farmers institutes. From the reading of the law which I have quoted it is clear that it was not contemplated by Congress when this act was passed to use the funds of the Experiment Station for Farmer's Institutes nor for demonstration work. The following paragraph is taken from a letter of instruction sent out by the Secretary of Agriculture to the Directors of Experiment Stations:

"The increased liberality of the Federal Government in providing for the endowment of research and experimentation in agriculture should be a further incentive to the States and local communities to supplement these funds for the extension of demonstration experiments, farmers' institutes, agricultural colleges, schools, and courses of instruction, and the general education of the rural communities along industrial lines, in order that the masses of our farmers may be so educated from early youth that they will appreciate the benefits of original research and experimentation as applied to agricultural problems and be able to appropriate in the most effective manner for their own benefit and the general welfare of the nation whatever practical results are obtained from the work of the agricultural experiment stations."

From this you will see that it is very clear that the expenses of organizing and

running farmer's institutes and other similar institutions in the State of Florida must be met from funds provided by the Legislature.

SEPARATION OF THE EXPERIMENT STATION FROM THE UNIVERSITY.

The Board of Control of the Florida educational institutions as soon as they came into power decided to make a more sharply defined segregation between the University and the Experiment Station. Through their President Dr. Sledd of the University, they have promised us that the workers in the Experiment Station should not be required to do University work.

This segregation has its advantages and also its disadvantages. It has its disadvantages in losing the services of, at least, two very able men, Dr. Flint and Dr. Sellards; on the other hand, it has its advantages in securing the undivided efforts of a number of the best workers that we have in the South. During the present fiscal year: i. e., until June 30, the connection between the University and Experiment Station will continue as it has been for the past fourteen years. At the beginning of the next fiscal year, which is July 1st, the Experiment Station staff will be entirely free from teaching work. This will make it possible for this corp of scientists to devote their entire time to the working out of experiments that have been inaugurated. It will also enable them to visit various portions of the State of Florida at such a time, and for such a length of time, as their experiment work will permit. During the coming year it will be possible to deliver lectures from time to time at other points and at more frequent intervals.

REMOVAL TO GAINESVILLE.

Every member of the Horticultural Society is familiar with the fact that the University of Florida is to be transferred to a new site at Gainesville during the coming year. At the same time when the University is transferred the Experiment Station will also be moved to its new location. The Board of Control are providing at Gainesville commodious

buildings for every department in the Experiment Station; also propagating house, grounds, and other equipments necessary for beginning work at once. The plans have been made and are being carried out successfully so that there will be no interruption in the experiments that are already in progress and also make it possible to carry forward any new projects that may be found desirable.