

ist can suggest, but the practical man is required to put in operation his ideas. The scientist may make suggestions in regard to methods, but the man with practical experience as a farmer can discount him in the results obtained from the application of those methods. Experience is required in the successful management of a farm. Practical knowledge is a necessity. Theoretical knowledge alone will not suffice. Hence the absurdity of the model farm idea which contemplated the profitable management of a large farm with only theoretical knowledge as a basis of capital. With the establishment of the government experiment station in 1887, the model farm idea was wisely abandoned.

The Experiment Station.

Congress passed, in 1887, the Hatch Act, which provided for the establishment of experiment stations in the various states for the purpose of "acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and application of agricultural science." It was under the provisions of this law that the experiment station was established at the college farm. The station publishes, each year, four regular bulletins and about the same number of short press bulletins. Each edition of the regular bulletin number 10,000 copies, of which 8,000 are distributed upon application among the farmers of the state. These bulletins deal with experiments in soil culture, animal diseases and other subjects of like character.

The Station and the Farmer.

While these bulletins may be valuable from a scientific standpoint, they do not result in any particular advantage to the farmer for whom they are especially designed. He is not made to feel that these experiments are of any commercial advantage to him, simply because he has no way of knowing anything about them. There are, approximately, about 200,000 farmers in Nebraska. For these 200,000 farmers there are published 8,000 bulletins. It can be readily seen the extreme difficulty the farmer must have in being informed as to what science is doing for him through the medium of the experiment station. The 8,000 copies are only available, too, upon application, and few indeed are aware of the method to be employed in obtaining them. No matter how excellent from a scientific standpoint and how practical these experiments are; no matter how rich in scientific erudition the writer may be, of what avail are they to the farmer if the knowledge of them remains, either locked up in the intellectual vaults of the one making them or stored away in a publication he has but slight chance of seeing. The lack

of funds to insure publicity of experimental work practically negatives any real material good coming from it so far as the farmer is concerned.

What It Costs.

The annual endowment from the general government, for the experiment station is \$15,000, for the agricultural college, \$38,000 under the act of 1862, and \$15,000 under the act of 1890 for the first year and increased at at the rate of \$1,000 per year for ten years, after which the annual appropriation shall be \$25,000. The total amount expended in this state, up to 1895, by the general government along the line of agricultural instruction, was \$845,000, intended more especially, according to the verbiage of the law under which the money was appropriated, to promote the education of the farmer. In return for this expenditure ten farmers have been created. So far as the results intended are concerned, it means a cost per farmer of \$84,500. It would seem a rather costly system of incubation. If the expense of producing the article is to measure our appreciation, the college bred farmer deserves to be the most highly cherished of Nebraska products.

This statement of cost does not include the expense of conducting the experiment station, which for the same period amounted to \$195,000, making the total sum expended in Nebraska up to 1895 for agricultural education and research \$1,040,000. When it is taken into account that Nebraska is only one of many states, all of whom enjoy this educational bounty from the general government, and most of them to a much greater degree, the cost becomes appalling. Have the results been at all commensurate with the amount of money expended?

The Act of 1890.

Congress passed the second Morrill Act in 1890, intended as a more complete endowment of agricultural colleges, to be applied only "to instruction in agriculture, the mechanic arts, the English language, the various branches of mathematical, physical, natural and economic sciences with special reference to their application in the industries of life."

The New School.

In 1895 the board of regents of the university, in conformity with the provisions of this law, established the school of agriculture, not as college work but simply as a school for technical and practical instruction. It first offered a short course occupying eleven weeks, during the winter months when farm work is not so urgent. It was designed to meet, as stated in the catalogue, "the demand for simple and practical instruction in agriculture, to give the student something that will be of value to him when he returns to the farm. The practice is not in the work

of the farm, but in the operations requiring skill and knowledge and which are not ordinarily acquired on the farm." The subjects treated are: Soils and Crops, Diseases of farm animals, Breeding of live stock, Farm dairying, Plant pests, Farm accounts and like subjects of immediate concern to the farmer. The course in 1898 was supplemented by a three years course in which similar work is treated more exhaustively.

The Cost

The cost of maintaining the school of agriculture per year is:

For current expenses.....	\$ 200
Salary of director.....	1000
Instruction in botany.....	250
" in general science.....	300
" in mathematics.....	200
Total.....	\$1950

Professors Lyons, Burnett and Emerson also render services to the school, but are not charged to it. The part of their time, however, devoted to this work is worth about \$2,000, making the total annual cost of the school \$3,900.

The Students.

The number of students who have taken the short course has been:

In 1895-96.....	15 students.
In 1896-97.....	33 students.
In 1897-98.....	51 students.

Since the establishment of the three years course the number of students has been:

In 1898-99.....	35 students, short course.
In 1898-99.....	22 students, long course.
In 1899-1900.....	63 students, short course.
In 1899-1900.....	52 students, long course.
Total.....	115 both courses.

The number of students in 1895 was 15, in 1899, 115, a gain of 666 $\frac{2}{3}$ per cent in five years. The students are from the farms and thus far appear to be returning to the farms upon the completion of their course.

The Future.

What this school will do for the agricultural interests of the state is difficult at this time to determine. The physical conditions of our state are quite different now from what they were a few years ago. The land is becoming more densely populated. The farmers are beginning to see the necessity of more intense effort. Competition is becoming more severe. This combination of new conditions necessitates, on the part of the farmer, the lessening of his cost of production. He is beginning to realize that he can no longer farm as his father did. The introduction of machinery and the displacement of hand labor is a factor that has already been made use of to accomplish this end. At first this innovation had to combat strong prejudice. As in the case of the manufacturer, who made use of the chemist and the engineer to cheapen his