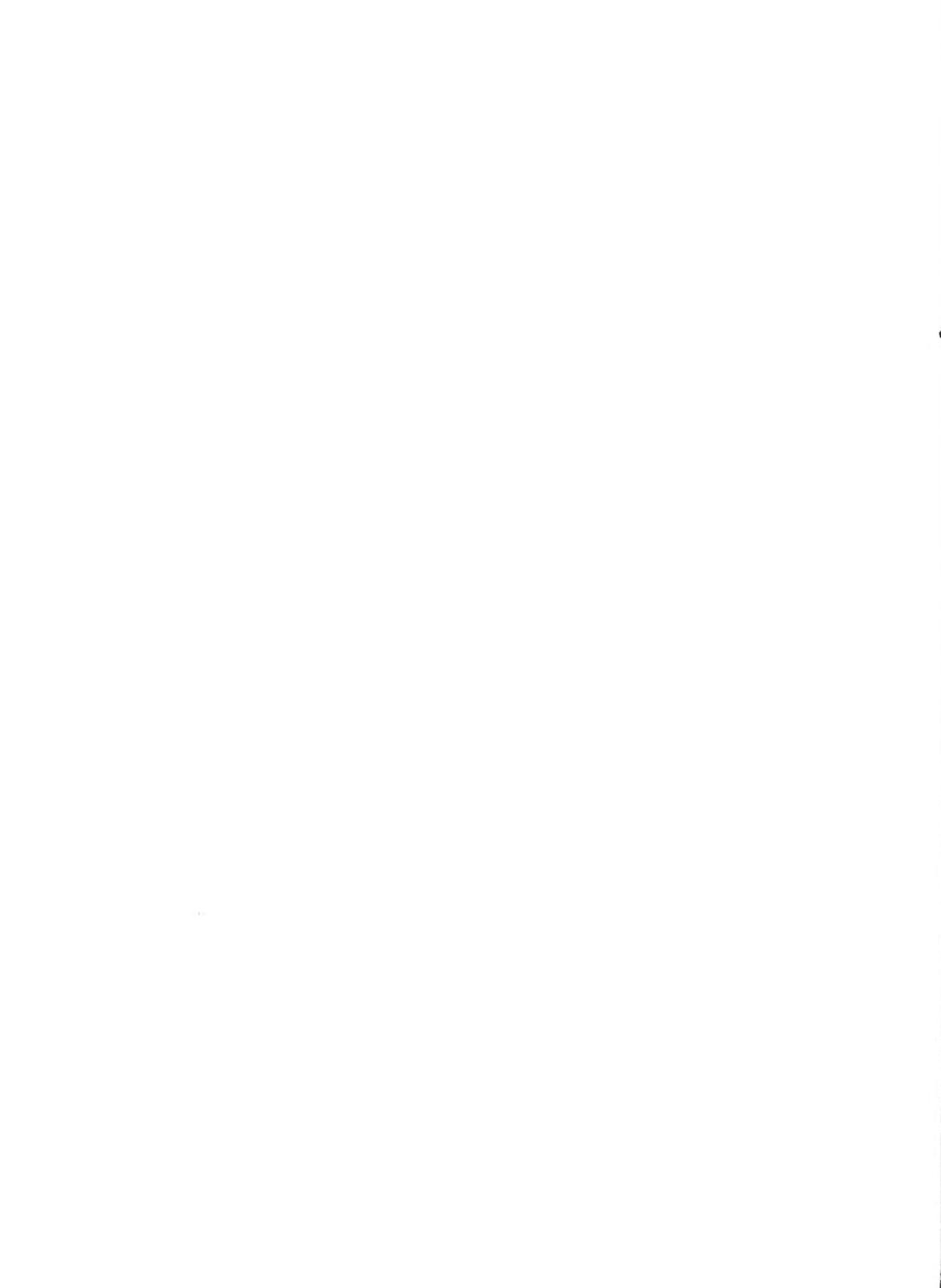


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Kansas State Agricultural College

**A Statement of its Needs for the
Next Two Years**

Manhattan, Kansas

December 10, 1910

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Needs of the Kansas State Agricultural College.

Industrial and technical subjects are the most expensive of all subjects to teach. A large outlay is required for equipment. Teachers in these subjects can usually command large salaries in practical lines, and are, therefore, hard to hold in college positions. The classes must be relatively small. A class in a purely lecture subject may number a hundred, or even two hundred, but good instruction cannot be given by the laboratory method to more than thirty or forty students at a time. In agriculture, mechanic arts and domestic science and general science the students are taught almost entirely by the laboratory method. That is, they are taught how to do things by being taught to do them.

An educational institution, of any sort, to meet the demands of to-day, cannot stand still—it must go either forward or backward. Moreover, an institution like the Kansas State Agricultural College is each year being called upon by those interested in agriculture or the industries to render a larger and more definite service. What, ten years ago, constituted a successful agricultural college would to-day be a small and unimportant institution indeed. The demands of the immediate future promise to be as large and important as have been those of the recent past.

For the first time in history, such fundamental problems as the world's food supply, the conservation of natural resources, and the revitalizing of the country church, the rural school, and indeed country life, are being made the special problems of the agricultural college.

The farmer no longer attempts to work out his own difficult problems, but refers them to the experiment station for solution. Thousands of farmers cannot avail themselves of the opportunities the college offers by studying at the college, but they rely upon the farmers' institutes, the demonstration farms, the instruction trains, and the reading courses, for definite instruction and guidance. The losses from several of the animal diseases, which formerly amounted to millions of dollars annually, are now being practically prevented by the serums produced at the agricultural college.

The amount and kind of service the people of a state may expect from their agricultural college will be definitely gauged by the financial support accorded it.

Maintenance.

This account carries all general expenses connected with the college, including salaries of teachers and employes, lighting and heating the buildings, freight, care of the campus, postage, etc. It is the bread and butter of the institution. The amount set down is conservative, and is considered the least upon which the college can operate without seriously crippling its efficiency. The proportionate increase in this fund is less than in former years. The cost to the state per student is much lower in the Kansas State Agricultural College than in any other college of its size and quality in the country. This, notwithstanding the fact already pointed out, that industrial education is the most expensive possible to devise.

For this purpose the Board of Regents has asked.....	1911-'12	1912-'13
.....	\$200,000	\$220,000

The Experiment Station.

One of the largest services rendered to the state by the college is through the researches of the experiment station. These cover every phase of agriculture, including soil management, crop production, origination and development of new and improved strains of staple crops, the development of crops especially adapted to the western portion of the state, the breeding, feeding and management of live stock, the control of animal and plant diseases, the suppression of the ravages of insect pests, fruit growing, dairy husbandry, and poultry husbandry.

For this purpose is asked.....	1911-'12	1912-'13
.....	\$20,000	\$25,000

College Extension.

Through this department the discoveries and teachings of the college and experiment station are brought directly to the people, through farmers' institutes, demonstration farms, instruction trains, reading courses, etc. Every county in the state is visited by representatives of this department, and every industry of importance is encouraged through its teachings. The amount of good this department can do in the development of Kansas industries will be limited only by the amount of money the state is willing to invest in it.

The Board of Regents has asked.....	1911-'12	1912-'13
.....	\$35,000	\$40,000

Fort Hays Branch Experiment Station.

This is an institution especially organized to serve the interests of the western portion of the state, to work out the agricultural problems peculiar to this region; to develop varieties of grain and forage crops adapted to the climatic conditions there prevailing; and to work out systems of farming that will be more remunerative and support a larger population. This portion of the state has a soil of great fertility, a climate capable of developing a rug-

ged and virile race of people. The problem is to learn how to secure sufficient and uniform yields with a limited water supply.

For this purpose the Board of Regents has recommended to the legislature the sums of.....

1911-'12	1912-'13
\$30,000	\$30,000

Library Equipment.

For the improvement and better equipment of the library, which benefits every student in the college, the Board of Regents has asked.....

1911-'12	1912-'13
\$7,000	\$7,000

Heat and Power Equipment.

The economical heating and lighting of a plant like the Kansas State Agricultural College is no small undertaking. With two large buildings added, *viz.*, the mechanical engineering building and the new armory and gymnasium, it is necessary to increase the equipment and to revise in an important way the lighting and heating systems.

For this purpose the Board estimates.....

1911-'12	1912-'13
\$7,500	\$7,500

Heat Tunnels.

It is necessary to extend the heat tunnel to the new armory and gymnasium, and the equipment in the present tunnel is in very bad shape, and needs, for efficient and economical service, overhauling, and in many instances entire replacing. The cost of all this work would probably fall between \$10,000 and \$15,000.

It is estimated that the amount absolutely imperative to be done within the next two years will require an appropriation of at least.....

1911-'12	1912-'13
\$3,000	\$3,000

Fire Protection and Escapes.

The college has at the present time very poor fire fighting facilities, and no fire escapes. For the protection of the property of the state, and the lives of the students attending the college, the Board urgently requests the legislature to provide an appro-

priation of.....

1911-'12	1912-'13
\$6,000	\$6,000

Water-Supply.

The present water-supply of the college is insufficient and is not free from the danger of contamination. At times, the college is forced to buy water from the city of Manhattan, at a price far in excess of the cost to the college for pumping from its own wells. It is proposed to sink an additional well, on ground that can be made absolutely free from contamination, and to establish a more economical system of pumping than is now provided. For this purpose it is estimated that there will be required.....

1911-'12	1912-'13
\$1,500	\$1,500

Coal.

Experience has demonstrated that it is not possible, at times, for the penitentiary to supply all the state institutions with the amount of coal required to heat and light them. At various times the college has been obliged to purchase coal in the market, and has for months been in imminent danger of a shortage. The Board of Regents, therefore, recommends to the legislature that a fund for this purpose be appropriated to the college, with the proviso that only such part of the fund is to be used as is required to pay the freight and drayage on the coal secured from the penitentiary and for the purchase of such an amount of coal as the penitentiary cannot furnish, the remainder to revert automatically to the state.

	1911-'12	1912-'13
The sum estimated for this revolving fund is. . .	\$14,000	\$14,000

General Repairs.

For many years no special fund has been provided for the repair of the buildings and other property of the college. As a result, the buildings are not in a state of good repair. The roofs of several of the buildings need to be entirely replaced; in one instance the entire end of a building will need to be reconstructed; floors in other buildings are worn out. The state architect, at the request of the authorities of the college, went carefully over the institution and estimated in detail the repairs required, and the sums requested by the Board of Regents for this purpose are those

	1911-'12	1912-'13
recommended by him, as follows.	\$15,000	\$20,000

Armory and Gymnasium.

(To complete literary society halls and swimming pools.)

The following statement from the state architect in relation to this matter is self-explanatory, and fully sets forth the need for this appropriation and the reason why these items were not included in the original contract for the building:

"With reference to the armory and gymnasium, for which the legislature of 1909 made an appropriation of \$100,000, I will say that under the contract with Walter B. Stingley for the main structure, and the Salina Plumbing Company for the plumbing and heating, and a certain allowance for electrical work, this building will be completed for all the purposes contemplated in the act, and will be ready for occupancy at the opening of school in September, 1911. A sufficient sum is available for lighting and equipment.

"In order to design a building of sufficient magnitude to comprehend the pool and locker spaces necessary for both young men and young women, and a gymnasium and armory floor sufficient for the drill movements of the cadet corps, we found it necessary to carry out a design that, above the main floor, would afford considerable room which could be advantageously finished for the uses of the various literary societies of the college. We find that this space which is available for this purpose will amount to nine good-sized rooms.

"In view of the fact that many of the societies of the college are meeting in basements, in unventilated and unsanitary quarters, with the permission of the Board of Regents the building was designed so as to provide for these society rooms.

"The appropriation was not sufficient to finish these society halls, and

indeed I question whether, under the terms of the appropriation, we could have used the funds for such purposes, and they, therefore, remain in an unfinished condition. The enclosing of this space which can be finished for these purposes was rendered necessary in order to have a sufficiently large basement for the combined use of the boys and girls, as before stated.

"The language of the statute appropriating the funds for this building was such that no part of the appropriation could be used for other than strictly armory and gymnasium purposes and the equipment thereof.

"In order now to complete these rooms, which may be designated as literary society rooms, or, indeed, very valuable class rooms, and also the installation and equipment of two swimming pools, it will be necessary to ask for an appropriation of \$22,000."

(Signed) C. H. CHANDLER, *State Architect.*

The literary societies, nine in number, are doing a work of inestimable value in the college. At the present time they hold their meetings in halls that are poorly ventilated and are not suited to such purposes. To provide these societies with halls is to encourage young men and women to take more interest in this voluntary literary work, so important to their success in after life.

1911-'12

For this purpose the Board of Regents has asked..... \$22,000

The Milling Industry.

Kansas is the principal hard winter wheat state of the union. Only forty per cent of the wheat grown in Kansas is milled in the state. Every bushel of wheat grown here ought to be milled within the state, in order to help build up the state's industries and to keep the by-products of bran and shipstuff at home, to be fed to improved live stock and the fertility be thereby returned to our soil instead of being lost to the state. The college is seeking, through this department, to increase the quality of the Kansas flour, by more scientific blending of the wheats; through instruction as to the handling of the wheat, from harvest until the time it is milled; by baking and chemical tests, to show how the wheats may be used to produce the largest yield of flour of the highest quality.

1911-'12 1912-'13

For this purpose the Board of Regents is asking, \$2,000 \$2,000

Forestry.

For the purposes of producing windbreaks, to ascertain what varieties of trees are best suited to the different climatic and soil conditions of the state, how they may be raised to become the most effective in preventing destructive winds, soil drifting, and for propagation of nursery stock, the Board is asking.....

1911-'12 1912-'13

	\$3,000	\$3,000
Dodge City Forest Station.....	2,200	2,200
Ogalla Forest Station.....	2,200	2,200

Dairy Commissioner.

Kansas ought to be, and is destined soon to become, one of the leading dairy states of the union. Dairying is perhaps one of the most permanently profitable specialties of farming. The whole problem of developing the industry, of increasing the quality of

the dairy products of the state, the inspection of the skimming, cream buying and manufacturing plants of the state, the inspection of testing cream, etc., rests in the office of the dairy commissioner.

	1911-'12	1912-'13
The Board recommends for this purpose.....	\$7,500	\$7,500

320 **Garden City Experiment Station.**

Four years ago the county of Finney deeded to the college a farm consisting of 160 acres, for the purpose of conducting an experiment station and demonstrations in general farming on the uplands of this region. The land is practically without equipment or fences. It is estimated that for the erection of a suitable cottage for the superintendent, a barn, necessary fences, for the purchase of the necessary machinery and live stock, and for the maintenance of the work for two years, there will be required an

	1911-'12	1912-'13
appropriation as follows	\$5,000	\$2,500

Better Equipment and Increased Work of Departments.

For the better equipments of the departments of the college named below, the following sums are recommended:

	1911-'12	1912-'13
Domestic Science.....	\$2,000	\$2,000
Animal Husbandry.....	5,000	5,000
Dairy Husbandry.....	5,000	5,000
Agronomy.....	5,000	5,000
Poultry.....	5,000	5,000
Horticulture.....	5,000	5,000
Veterinary Medicine.....	2,500	2,500
Engineering laboratory.....	10,000	10,000
Printing.....	3,000	2,000

Agricultural Hall.

At the present time one of the smallest buildings on the campus is the agricultural building. This is because the agricultural building was one of the first to be erected, and was built when the enrollment was between 400 and 500, instead of approximately 2,400, as at present. The animal husbandry department, soils, and the crops department, have entirely outgrown this structure, and it is recommended that a new building for these departments be provided, to contain a live stock judging pavilion, a laboratory for instruction in cutting and curing meats, a corn and small grain judging pavilion, and class rooms for animal husbandry, soils, and crops. The present agricultural building is sorely needed by other departments, which have also outgrown their quarters.

For an agricultural hall and its equipment is asked.....	1911-'12	1912-'13
.....	\$50,000	\$75,000

Physics Building and Equipment.

A building adapted to the needs of the departments of physics and electrical engineering is sorely needed. These departments

are now quartered in the general science building, which is over-run with students. The department of chemistry, which is also quartered in this building, has at this moment in attendance upon classes and in laboratory exercises nearly a thousand students. They have laboratory room for 276 students, and there are taking laboratory work in this space over 700 students. The experiment station laboratories in soil fertility, stock feeding, etc., have been taken over mainly to accommodate students, and these important phases of investigation are greatly hampered.

In physics, there is room for 216 students, by working six days each week. There were enrolled in this subject last spring nearly 600 students, and are at the present time nearly 500. Before the end of the year it is probable that there will be over 700 seeking instruction in this crowded space.

It is estimated that for a physics building and its equipment

	1911-'12	1912-'13
there will be required	\$45,000	\$45,000

Barn for the Department of Animal Husbandry.

There is no suitable barn for the housing of the thousands of dollars' worth of valuable live stock belonging to the college. Some of the best animals in the state are forced either to remain out of doors in winter, or to stand in a badly crowded and poorly ventilated stable. There is not a suitable place on the college farm for the storage of feed, the preservation of silage, or the shelling and grinding of grain. In other words, the physical equipment of the animal husbandry department of the college is not as good as that of many of the private breeders of the state.

The Board has, therefore, recommended an appropriation for

	1911-'12	1912-'13
the erection of a suitable barn and its equipment...	\$25,000	———

Poultry House.

Poultry husbandry is one of the most important industries in the state. The college has a well-organized poultry department, with a splendid equipment of fowls, but absolutely no equipment of buildings, etc. The Board, therefore, recommends for this purpose.....

	1911-'12	1912-'13
pose.....	\$5,000	—

Regents' Fund.

For the per diem and the traveling expenses of the Regents in attending the meetings of the Board, is asked.....

	1911-'12	1912-'13
.....	\$2,500	\$2,500

Contingent Fund.

	1911-'12	1912-'13
For the president of the college.....	\$500	\$500

The following is a summary:

	1911-12	1912-13
Maintenance.....	\$200,000	\$220,000
Laboratory and library equipment.....	7,000	7,000
Experiment station.....	20,000	25,000
Domestic science.....	2,000	2,000
Animal husbandry.....	5,000	5,000
Dairy husbandry.....	5,000	5,000
Department of agronomy.....	5,000	5,000
Poultry.....	5,000	5,000
Horticulture.....	5,000	5,000
Veterinary department.....	2,500	2,500
Engineering laboratory.....	10,000	10,000
Heat and power equipment.....	7,500	7,500
Water supply.....	1,500	1,500
Fire protection and escapes.....	6,000	6,000
Printing department.....	3,000	2,000
Agricultural hall and equipment.....	50,000	75,000
Physics building and equipment.....	45,000	45,000
Barn for animal husbandry.....	25,000
Poultry house.....	4,500
Armory and gymnasium (to complete literary society halls and swimming pools).....	22,000
Milling industry.....	2,000	2,000
College extension.....	35,000	40,000
Forestry.....	3,000	3,000
Dodge City forest station.....	2,200	2,200
Ogallah forest station.....	2,200	2,200
General repairs.....	15,000	20,000
Dairy commissioner.....	7,500	7,500
Hays branch experiment station.....	30,000	30,000
Garden City station.....	5,000	2,500
Regents' fund.....	2,500	2,500
Contingent fund for president.....	500	500
Coal.....	14,000	14,000
Heat tunnels.....	3,000	3,000
Totals.....	\$550,900	\$555,900

Very respectfully submitted,

H. J. WATERS, *President*.



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