MISSOURI AGRICULTURAL

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MISSOURI EXPERIMENT STATION.

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THE LAW OF CONGRESS ESTABLISHING AGRICULTURAL EXPERIMENT STATIONS.

AN ACT to establish agricultural experiment stations in connection with the colleges established in the several states under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto.

SECTION 1. *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That in order to aid in 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 applications of agricultural science, there shall be established, under direction of the college or colleges or agricultural department of colleges in each state or territory established, or which may hereafter be established, in accordance with the provisions of an act approved July second, eighteen hundred and sixty-two, entitled, "An act donating public lands to the several states and territories, which may provide colleges for the benefit of agriculture and the mechanic arts," or any of the supplements to said act, a department to be known and designated as an "agricultural experiment station:" *Provided,* That in any state or territory in which two such colleges have been or may be so established the appropriation hereinafter made to such state or territory shall be equally divided between such colleges, unless the legislature of such state or territory shall otherwise direct.

SEC. 2. That it shall be the object and duty of said experiment stations to conduct original researches or verify 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 useful 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; the scientific and economic questions involved in the production of butter and cheese; and such other researches or 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 or territories.

SEC. 3. That in order to secure, as far as practicable, uniformity of methods and results in the work of said stations, it shall be the duty of the United States commissioner of agriculture to furnish forms, as far as practicable, for the tabulation of results of investigation or experiments; to indicate, from time to time, such lines of inquiry as to him shall seem most important; and, in general, to furnish such advice and assistance as will best promote the purposes of this act. It shall be the duty of each of said stations, annually, on or before the first day of February, to make to the governor of the state or territory in which it is located a full and detailed report of its operations, including a statement of receipts and expenditures, a copy of which report shall be sent to each of said stations, to the said commissioner of agriculture, and to the secretary of the treasury of the United States.

SEC. 4. That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the states or territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same, as far as the means of the station will permit. Such bulletins or reports and the annual reports of said stations shall be transmitted in the mails of the United States free of charge for postage, under such regulations as the postmaster general may from time to time prescribe.

SEC. 5. That for the purpose of paying the necessary expenses of conducting investigations and experiments and printing and distributing the results as hereinbefore prescribed, the sum of fifteen thousand dollars per annum is hereby appropriated to each state, to be specially provided for by congress in the appropriations from year to year, and to each territory entitled under the provisions of section eight of this act, out of any money in the treasury not otherwise appropriated, to be paid in equal quarterly payments, on the first day of January, April, July and October

in each year, to the treasurer or other officer duly appointed by the governing boards of said colleges to receive the same, the first payment to be made on the first day of October, eighteen hundred and eighty-seven: *Provided, however*, That out of the first annual appropriation so received by any station an amount not exceeding one-fifth may be expended in the erection, enlargement, or repair of a building or buildings necessary for carrying on the work of such station; and thereafter an amount not exceeding five per centum of such annual appropriation may be so expended.

SEC. 6. That whenever it shall appear to the secretary of the treasury from the annual statement of receipts and expenditures of any of said stations that a portion of the preceding annual appropriation remains unexpended, such amount shall be deducted from the next succeeding annual appropriation to such station, in order that the amount of money appropriated to any station shall not exceed the amount actually and necessarily required for its maintenance and support.

SEC. 7. That nothing in this act shall be construed to impair or modify the legal relation existing between any of the said colleges and the government of the states or territories in which they are respectively located.

SEC. 8. That in states having colleges entitled under this section to the benefits of this act and having also agricultural experiment stations established by law separate from said colleges, such states shall be authorized to apply such benefits to experiments at stations so established by such states; and in case any state shall have established under the provisions of said act of July second aforesaid, an agricultural department or experimental station, in connection with any university, college or institution not distinctively an agricultural college or school, and such state shall have established or shall hereafter establish a separate agricultural college or school, which shall have connected therewith an experimental farm or station, the legislature of such state may apply in whole or in part the appropriation by this act made, to such separate agricultural college or school, and no legislature shall by contract express or implied disable itself from so doing.

SEC. 9. That the grants of moneys authorized by this act are made subject to the legislative assent of the several states and territories to the purposes of said grants: *Provided*, That payments of such installments

of the appropriation herein made as shall become due to any state before the adjournment of the regular session of its legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof duly certified to the secretary of the treasury.

SEC. 10. Nothing in this act shall be held or construed as binding the United States to continue any payments from the treasury to any or all the states or institutions mentioned in this act, but congress may at any time amend, suspend, or repeal any or all the provisions of this act.

Approved March 2, 1887.

ORGANIZATION OF THE MISSOURI AGRICULTURAL EXPERIMENT STATION.

The board of curators of the state university, at its meeting, January 31, adopted the following:

WHEREAS, The board of curators of the university of the state of Missouri, at its semi-annual meeting, held in the curators' room in the university building in the town of Columbia, in said state, on the 10th and 11th days of January, 1888, resolved to organize an "Agricultural Experiment Station" under the provisions of the act of congress of the United States, of March 2, 1887, and entitled "an act to establish agricultural experiment stations in connection with the colleges established in the several states under the provisions of an act approved July 2, 1862, and of the acts supplementary thereto," and did refer the organization of said station to the executive committee: and,

WHEREAS, It is the opinion of this committee that it is the intent of said act of congress, of March 2, 1887, to establish said stations, not for the purpose of class instruction in agriculture, but to provide for "scientific investigation and experiment respecting the principles and applications of agricultural science," and for conveying the results thereof directly to the people, and for conducting these experiments "having due regard to the varying conditions and needs of the respective states or territories;" and,

WHEREAS, The chief agricultural interests of Missouri are grain and stock growing, fruit and dairy products, and the chief hindrances to these industries are, first: Unscientific and, therefore, unprofitable methods of tilling and improving the soil, of cultivating and utilizing the plants, and

of breeding and feeding the stock; and second, lack of knowledge of insect and fungus life, and the semi-manufacturing processes necessary to success in several branches of agriculture: therefore

Resolved and ordered, That the Missouri Agricultural Experiment Station be hereby and is now organized with the view to meet the intentions of the act of congress of March 2, 1887, in accordance with the following plan and provisions, to-wit:

1. The control of the Missouri Agricultural Experiment Station is placed in the hands of the board of curators of the university of the state of Missouri.

2. The executive officers of the station are a director, an agriculturist, an assistant chemist and a business manager, elected by the executive committee, and their successors by the board of curators of the university. Each of these officials shall be amenable to the board of curators in all things pertaining to the duties of his office.

3. The director shall have control and direction of all matters pertaining to the experimental work of the station; he shall originate and superintend the conducting of all investigations and experiments submitted to and approved by the executive committee; he shall direct the work of all employes and laborers of the station, and these shall at all times be subject to his orders; he shall, over his official signature, prepare and submit bulletins of the station's work to the executive committee for publication, according to the act of congress. He may nominate to the board of curators or executive committee an assistant chemist and an agriculturist. He may, from time to time, at his discretion, and as the means of the station will permit, engage the assistance of any specialist to aid in any of the investigations carried on. He shall receive for his services the sum of $2,500 per annum.

4. The agriculturist shall have charge of the farm work required by the station; he shall conduct such experimental work as may be devised and planned by the director in fertilizing soils, preparing land for seeding or planting, rotation of crops, treating, feeding and breeding animals, preparing and preserving meats, growing and keeping fruits, managing dairy cattle and dairy products, and all things, both special and general, that may be required of him by the director in the line of experimentation. He shall receive for his services the sum of $1,200 per annum.

5. The assistant chemist shall perform, under the superintendence of the director, all the work assigned to him, and shall receive for his services $1,200 per annum.

6. The business manager shall conduct all business correspondence connected with the fiscal affairs of the station, keep an account of the receipts and expenditures of money, transact such business as may be necessary with the departments of the federal government of the United States, publish all quarterly and annual reports required by the laws of congress, make annual report to the governor of the state of Missouri, and attend to the printing, publishing and distributing of bulletins, approved by the executive committee of the board of curators. He shall devise and execute methods for promoting the general usefulness of the station to the farmers of Missouri; engage and employ the unskilled labor needed by the station, and make all necessary purchases. He shall keep his office at such place as the curators or the executive committee may direct, and his books shall at all times be open to their inspection; he shall make to the executive committee quarterly reports of all his transactions and the work of the station on the last day of the months of March, June, September and December of each year.

The president of the board of curators shall be ex-officio the business manager of the station, and the expenses of his office, including that of a secretary or clerk selected or appointed by himself, shall be fixed by the board of curators at the June meeting, 1888.

7. The officers provided for in sections 3, 4, and 5, and at the salaries affixed, shall be chosen and elected by the executive committee, subject to the action of the board of curators from and after June 1, 1888.

8. All salaries to officers of the station shall be paid quarterly, in same manner as other appointees of the board of curators are paid; other employes of the station shall be paid monthly, as employes of the university are paid.

9. All moneys placed to the credit or at the disposal of the station by the government of the United States or coming to it from any other source shall be paid to the treasurer of the board of curators of the university of the state of Missouri, and paid out by him in the same manner by which the payments of the university funds are now authorized.

10. The executive committee of the board of curators will use any buildings or grounds of the farm or garden of the agricultural college, or make any changes or repairs thereon that may be necessary for the work of the experiment station, and such buildings or grounds shall be under the control of the director.

11. It shall be lawful for the curators of the university of Missouri, at any time when the necessities of the case require it, to elect other assistants or specialists in connection with the proper performance of the work of the station, and to fix the compensation and term of office of each.

12. There is hereby constituted an "advisory council," composed of the governor of the state, the president of the state university, the president of the state board of agriculture, the president of the Missouri horticultural society, the master of the state grange, the professor of agriculture of the agricultural college, and the professor of geology at the university, who shall be admitted to the meetings of the board of curators or executive committee of the same, for conference and consultation in matters pertaining to the station, provided, however, that all business of the station shall be transacted by the curators of the university of Missouri or its executive committee, upon whom the legal responsibility for the proper administration of affairs is placed.

RE-ORGANIZATION.

The following plan for a re-organization of the agricultural experiment station was, after considerable discussion, adopted, July 6, 1888:

WHEREAS, the act of congress approved March 2, 1887, establishing agricultural experiment stations in the United States, provided and enacted that such stations should be under the direction of the college or colleges or agricultural department of colleges established in accordance with the provisions of an act of congress approved July 2, 1862, and that such stations should be a department of such colleges to be known as an agricultural experiment station; and

WHEREAS, the title to said act of congress of March 2, 1887, declares the act to be "an act to establish agricultural experiment stations in connection with the colleges established in the several states under the provisions of an act approved July 2, 1862, and of the acts supplementary thereto;" and

WHEREAS, the agricultural college of the university of the state of Missouri was established under the said act of congress of July 2, 1862. Therefore

Resolved, 1. That the Missouri agricultural experiment station, organized in January, 1888, under the act of congress of March 2, 1887, be, and the same is hereby made a department of the agricultural college of the university of the state of Missouri.

Resolved, 2. That the farm of the agricultural college aforesaid, with all of the appurtenances thereunto belonging, shall be used for the purposes of experimentation, as provided in the act of congress of March 2, 1887, and for university instruction in the science and practice of agriculture.

Resolved, 3. That university professors at the heads of the departments of agriculture, chemistry, horticulture and entomology and veterinary surgery, shall have charge of the work of their respective departments in the agricultural experiment station aforesaid. The professor of agriculture shall have charge of experimentation in practical agriculture. The dean of the agricultural college shall have general command over the station, under such rules and regulations as the board of curators may prescribe. The professor of chemistry shall have charge of all experiments in chemistry. The horticulturist shall have charge of the work of experimentation in horticulture and entomology. The veterinarian shall have charge of all experiments in veterinary surgery and medicine. These several professors shall make quarterly reports of experiments with results of discoveries and of practical applications of scientific principles and facts to the general interest of agriculture as a business. These quarterly reports shall be published by the board of curators, or its executive committee, as bulletins, each such report to be over the official signature of the respective heads of departments. It shall be competent for the board of curators or the executive committee thereof, to direct experiments in any particular line of agricultural science that to them may seem, from time to time, required by the agricultural interests of the state.

Resolved, 4. That in addition to the foregoing working force in the station aforesaid, there shall be an assistant agriculturist, and an assistant chemist, an assistant veterinarian, a secretary and a college farm superintendent, the latter to have charge of the labor, live stock and commercial

business of the farm. The feeding and breeding of domestic stock to be carried on by him in consonance with the plans of the professor of agriculture.

Resolved, 5. That the professor of agriculture and the professor of chemistry receive each a salary of $2,500 per year, one-half of each such salary shall be paid out of the federal appropriations for and to the experiment station aforesaid. The other half of said salaries each to be paid out of the Missouri agricultural college funds. The horticulturist and entomologist (who shall be one and the same person) shall receive a salary of $2,000 per year, one-half of said salary to be paid out of the federal appropriations for and to the experiment station aforesaid, and the other half of said salary to be paid out of the funds of the Missouri agricultural college. The assistant chemist shall receive a salary of $1,200 per year, one half thereof to be paid out of federal appropriations to and for the experiment station aforesaid, and the other half to be paid out of the funds of the Missouri agricultural college.

The assistant agriculturist shall receive a salary of $1,200 per year, to be paid out of federal appropriations to and for the experiment station aforesaid.

The assistant veterinarian shall receive a salary of $600 per year, to be paid out of federal appropriations to and for the experiment station aforesaid.

The secretary shall receive a salary of $1,200 per year, to be paid out of federal appropriations to and for the experiment station aforesaid.

The college farm superintendent shall receive a salary of $1,200, to be paid out of the funds of the Missouri agricultural college.

Resolved, 6. That all and any previous actions of the board of curators or the executive committee thereof, not consistent with the foregoing provisions, be and the same are hereby repealed and annulled.

LIABILITIES OF STATION UNDER ABOVE ARRANGEMENT.

One-half salary of agriculturist	$1,250
One-half salary of chemist	1,250
One-half salary of horticulturist and entomologist	1,000
One-half salary of assistant chemist	600
Salary of assistant agriculturist	1,200
Salary of assistant veterinarian	600
Salary of secretary of business manager	1,200
Total	$7,100

LIABILITIES OF UNIVERSITY UNDER ABOVE PLAN.

One-half salary of agriculturist	$1,250
One-half salary of chemist	1,250
One-half salary of horticulturist and etomologist	1,000
One-half salary of assistant chemist	600
Salary of farm superintendent	1,200
Total	$5,300

ADVISORY COUNCIL.

The advisory council consists of the following named gentlemen:

Ordered that an advisory council to the experiment station be and the same is hereby created to be composed of the president of the board of curators of the university of Missouri: the professor of agriculture: professor of chemistry; professor of horticulture and entomology; professor of geology; the state veterinarian; the governor of the state of Missouri; the master of the Missouri state grange; the president of the Missouri horticultural society: the secretary of the Missouri horticultural society, and the president of the state board of agriculture. Said council to advise with the board of curators concerning the lines of experimentation to be pursued as contemplated by the act of congress of March 2, 1887, and to aid the representation of the station in adapting the work thereof to the various demands of agriculture in Missouri.

It is further provided and ordered that when members of said advisory council, not members of the board of curators, and not of the staff of the station, shall be present at any meeting of the board of curators or executive committee thereof, by invitation of the president of the board of curators, the necessary traveling expenses of said members shall be paid out of the funds of the agricultural experiment station, and the amounts therefor shall be drawn upon the treasurer. (Adopted.)

RULES AND REGULATIONS

FOR GOVERNMENT OF MISSOURI AGRICULTURAL EXPERIMENT STATION, MADE AND ADOPTED BY THE EXECUTIVE COMMITTEE IN PURSUANCE OF THE ACTION OF THE BOARD OF CURATORS, JULY 5 AND 6, 1888.

ARTICLE I.

THE WORK OF EXPERIMENTATION.

SECTION I. The dean of the agricultural college of the university shall have general direction of the work of experimentation according to the provisions of the act of congress establishing the station, under such regulations, however, as may from time to time be enacted by the board of curators or executive committee thereof.

SEC. II. The president of the university shall sustain to the station staff for experimentations, the same relation that he sustains to the faculty of the university, with all of the duties and rights pertaining thereto.

SEC. III. The office of agriculturist, created by the executive committee in July, 1888, shall now and hereafter be knows as the office of assistant agriculturist. And the present incumbent in the office of agriculturist shall be assistant agriculturist for the remainder of the year—from July 1, 1888, until January, 1889, at the salary fixed by the board of curators at the meeting held July 5 and 6, 1888.

SEC. IV. The unskilled labor of the station shall be engaged and contracted for by the dean. Provided, however, that it shall be the privilege of the different departments in the distribution of station work to nominate to the dean the workers.

SEC. V. The president of the university and dean of the agricultural college may conjointly nominate to the curators or executive committee the expert assistants in the work of experimentation.

SEC. VI. The relation of university professors engaged in the work of the experiment station remains unchanged as to the university.

SEC. VII. The dean, as station director, shall have full charge of the college farm, and all appurtenances thereunto belonging, including the new building erected, as station headquarters and laboratory, provided, however, that no other officers of the station shall be interfered with in the use and occupancy of their respective apartments of said building.

SEC. VIII. The farm superintendent shall have general management of the college farm, under the direction of the dean of the agricultural college and in harmony with the provisions of the board enacted at the meeting held July 5 and 6.

ARTICLE II.

FISCAL AFFAIRS OF THE STATION.

SECTION I. The board of curators shall administer the financial affairs of the station.

SEC. II. The funds shall be apportioned by the executive committee among the departments of work on the basis of agreement between the heads of station departments, together with the president of the university; and the amount apportioned to the account of any department of the station shall be by the station secretary at once credited to the same and no expenditure shall be made by any department in excess of its credit.

SEC. III. The accounts of the various departments shall be so kept by the station secretary that it may be readily ascertained at any time from the secretary's books what amount of money has been expended and what for, and the amount on hand; and the original bills payable and the warrants in settlement of same shall have corresponding numbers and shall be carefully preserved. The warrants drawn on account of the experiment station shall continue—as now—to have their distinctive headings, and be on paper differently colored from any other warrant issued by the board of curators. All warrants on account of station shall be countersigned by the station secretary.

SEC. IV. No bill shall be audited and ordered paid by the executive committee until the same shall have been examined and approved by the director and station secretary.

ARTICLE III.

GENERAL PROVISIONS.

SECTION I. The treasurer of the station shall immediately upon the receipt of any money for the station report the amount and its source to the station secretary in order that the latter may at any time be prepared to make exhibit of balance.

SEC. II. The station secretary shall keep a faithful record of the proceedings of the executive committee having relation to the experiment station, in a book or in books separate from its other proceedings, relating to the affairs of the University, and such records shall be carefully preserved and presented to each meeting of the board of curators for approval. He shall act as the correspondent of the station when such services are required by the director. He shall keep a record of the labors and transactions of the station; and a systematic file of papers relating to each department. His books shall present a clean, accurate, intelligible and complete exhibit of the affairs of the station. He shall until other provisions are made act as the librarian of the station.

SEC. III. Every facility shall be furnished for completing pending experiments in field work under the late director, which must be completed by the fifteenth of October, 1888, and the grounds of the college farm hitherto set apart for the station shall be turned back and merged into the college farm, all of which is now to be used for the purposes of the experiment station.

SEC. IV. The late director shall turn over to the dean of the agricultural college, as director of the station, all of the implements, papers, books, and other property of the station, now in his possession, together with a complete inventory of the same, and take from the dean a receipt therefor, and said inventory and receipt shall be properly recorded by the station secretary.

SEC. V. The printed and published bulletins of the station shall accord to each head of department due credit for work performed by him. No bulletin shall be published until it shall have been approved by the board of curators or its executive committee.

SEC. VI. Official reports of the station to the federal and state governments shall be made and transmitted by the board of curators or its executive committee.

SEC. VII. That two hundred dollars be put to the credit of the director for incidental expenses and labor account for its payment of labor by unskilled laborers for this time until the first of September, 1888. The amounts for subsequent labor shall be determined from time to time by the executive committee as the necessity of the station may require.