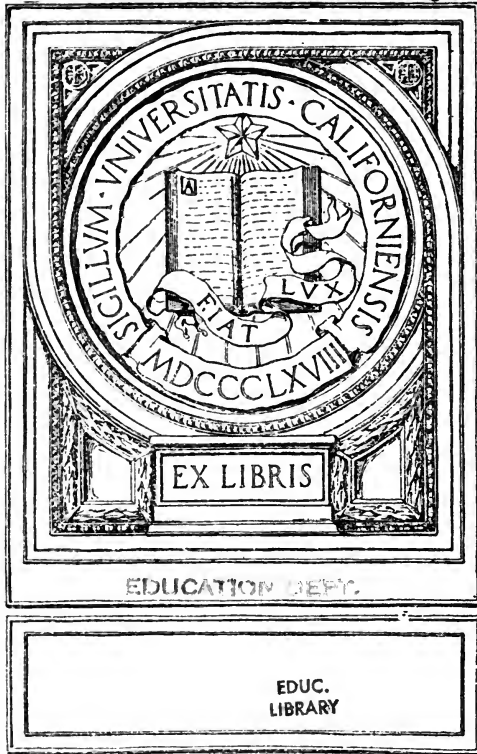


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III. STATE-AIDED DEPARTMENTS OF AGRICULTURE IN PUBLIC HIGH SCHOOLS

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Eleven states have appropriated funds to encourage the teaching of agriculture in existing public high schools. Several other states have made provision for special agricultural schools or given money for conducting teachers' training courses in which agriculture is one of the subjects of instruction, but these are not considered in this paper.

Virginia was first of the eleven states to make a specific appropriation for the teaching of agriculture in public high schools. In 1908 the Virginia Assembly appropriated \$20,000 to enable the State Board of Education to inaugurate courses in agriculture, home economics, and manual training in at least one public high school in each of the ten congressional districts of the state, and has since increased the appropriation to \$65,000, including \$25,000 to aid the schools in providing buildings and equipment, and \$10,000 for extension work to be conducted by them. There is nothing in the legislation to indicate how much money each school shall receive, because the number of schools to be aided, and hence the amount available for each, is not stipulated, this whole matter being left to the discretion of the State Board of Education.

Virginia was followed in 1909 by Maine and Minnesota. At that time Maine gave funds for instruction in agriculture and other industrial subjects in incorporated academies, but two years later an act was passed extending such aid to free high schools—two-thirds of the total expenditure for instruction in agriculture, home economics, and mechanic arts, but not to exceed \$500 a year to any one school.

Minnesota passed an act giving \$2,500 to each of ten high, graded, or consolidated rural schools maintaining courses in agriculture, home economics, and manual training, and the work of these ten schools proved to be so popular that in 1911 the legislature extended state aid at the rate of \$2,500 a year to twenty additional schools, and also passed another act giving \$1,000 a year to each of fifty schools to aid in main-

taining courses in agriculture and either in home economics or manual training.

In 1910, Louisiana, Maryland, and New York passed somewhat similar laws, and in 1911, Kansas, Massachusetts, North Dakota, Texas, and Wisconsin were added to the list. That local school authorities are ready and willing to meet all reasonable requirements as to expenditures for equipping and maintaining departments of agriculture, home economics, and farm mechanics in order to secure state aid, is shown by the rapid growth in the number of such state-aided departments. In May, 1910, there were twenty-eight schools receiving state aid for agriculture, while in November, 1911, there were at least two hundred and fifty.

The character and amount of state aid and the requirements to be met in the different states are shown in the following brief statements.

KANSAS

Law—Session Laws of 1911, chap. 24, sec. 2.

Number and kind of schools aided—Any high school maintaining a normal-training course under the provision of chap. 212 of the Session Laws of 1909. The State Board of Education has approved 98 schools for 1912.

Character and amount of aid—"The sum of \$250 per annum," the total state appropriation for this purpose being \$25,000 for 1912, and \$25,000 for 1913.

For what purpose—The maintenance of "courses in the elements of agriculture and domestic science."

Requirements to be met—At least ten pupils must be "enrolled in such industrial courses each semester." The State Board of Education has agreed that teachers in either of these courses must have special training for their work and their qualifications must be approved by the State Superintendent of Public Instruction. A minimum of 1 year in agriculture and 1 year in domestic science, preferably in the second year, will be required. "Laboratory work shall require double periods."

Administered by—The State Board of Education.

LOUISIANA

Law—Acts of Louisiana, 1910, No. 80, making appropriations to defray the ordinary expenses of the government, etc.

Number and kind of schools aided—Not more than 20 high schools maintaining agricultural departments in the school years 1911 and 1912.

Character and amount of aid—A lump sum appropriation for the year ending June 30, 1911, \$25,000, and for the year ending June 30, 1912, \$25,000.

Since the State Board of Education has decided not to aid more than 20 schools in 1911 and 1912, the appropriation to each school will be from \$1,200 to \$1,500. Nine schools maintained departments of agriculture in 1909-10 without state aid.

For what purpose—The maintenance of agricultural departments in connection with public high schools.

Requirements to be met—The State Board of Education has adopted regulations making the following requirements: Each school must have a demonstration farm of at least 5 acres, fenced against rabbits, chickens, and stock, and an option on 5 acres more if needed; there must be a barn with at least 5 stalls for horses and cattle, a weevil-proof grain bin, fertilizer and tool rooms, and a hayloft; the agricultural departments of approved high schools shall have at least \$100 worth of apparatus for teaching agriculture in addition to the regular apparatus for such schools, and those not on the approved list must have \$100 worth of apparatus for agriculture and from \$75 to \$150 worth of other apparatus; the school must also have at least \$40 worth of tools and \$140 worth of farm implements; an appropriation of at least \$250 for maintenance annually; and must own a horse or mule. The teacher of agriculture must be a graduate of an agricultural college with some practical experience in farming, and must be satisfactory to the department of education; he cannot be principal of the school and must not be required to teach any class in the school outside the department of agriculture except in botany and zoölogy, if these subjects are given an agricultural trend; he must be employed for twelve months in the year.

Administered by—The State Board of Education through the Supervisor of Agricultural High Schools.

MAINE

Law—Act of 1909 providing state aid for instruction in agriculture and other industrial subjects in incorporated academies, superseded by "An Act for the Encouragement of Industrial Education," Public Laws of 1911, chap. 188.

Number and kind of schools aided—Any free high school or incorporated academy.

Character and amount of aid—"A sum equal to two-thirds the total expenditure for instruction in each of said courses, provided, however, that no school shall receive a total in excess of \$500 in any one year for the support of said courses."

For what purpose—Instruction in the "principles of agriculture and the domestic and mechanic arts."

Requirements to be met—An average attendance of not less than 12 students in any course for which state aid is claimed. The course of study, equipment,

and qualifications of instructors to be prescribed by the State Superintendent of Public Instruction.

Administered by—The State Superintendent of Public Instruction, except that the funds are paid out upon order of the Governor and Council.

MARYLAND

Law—Acts of 1910, chap. 386.

Number and kind of schools aided—Any high school of the first or second group. High schools of the first group must have not less than 80 pupils, 4 teachers of high-school subjects, exclusive of teachers of special subjects, a course of four years of 36 weeks each, and provision for manual-training and domestic-science courses and also for a commercial or an agricultural course. High schools of the second group must have at least 35 pupils, 2 teachers of regular subjects, a three-year course, and a manual-training (construed to include domestic science), or an agricultural, or a commercial course.

Character and amount of aid—In addition to state aid for the salaries of the principal and regular teachers, schools of the first group receive from the state "\$400 on account of each of 2 special teachers, who shall spend at least two-fifths of their time in the school receiving said amounts, and schools of the second group \$400 on account of 1 teacher of special subjects, provided that if an instructor in manual training or agricultural work be required to divide his or her time among not more than four schools of this group, \$150 shall be allowed on account of each of such schools."

For what purpose—Instruction in manual training and domestic science and commercial or agricultural subjects.

Requirements to be met—So far as agriculture is concerned high schools of the first group must conform to a four-year course of study prescribed by the State Board of Education, requiring a minimum of two recitations of 40 minutes each and one practicum of 80 minutes each week.

Administered by—The State Board of Education.

MASSACHUSETTS

Law—"An Act to Codify and Amend the Laws Relating to State-aided Vocational Education," approved May 26, 1911.

Number and kind of schools aided—Public high schools.

Character and amount of aid—Two-thirds of the salary paid to instructors in agriculture, provided that the total state expenditure for this purpose shall not exceed \$10,000 in any one year.

For what purpose—The maintenance by cities and towns of "local or district independent agricultural schools consisting only of agricultural departments in high schools."

Requirements to be met—Approval by the State Board of Education “as to organization, control, location, equipment, courses of study, qualifications of teachers, methods of instruction, conditions of admission, employment of pupils, and expenditures of money.”

Administered by—The State Board of Education.

MINNESOTA

Putnam Act

Law—“An Act to Amend Chapter 247, General Laws 1909, Entitled, ‘An Act to Provide for the Establishment and Maintenance of Departments of Agriculture, Manual Training, and Domestic Economy in State High, Graded, and Consolidated Schools, and to Authorize Rural Schools to Become Associated with Such State, Grade, or High Schools, and Making Appropriation Therefor,’ and to Provide for Levying of Taxes to Carry Its Provisions Into Effect,” approved April 5, 1911.

Number and kind of schools aided—Any high school, graded school, or consolidated rural school having satisfactory rooms, equipment, and location, limited, however, by a state appropriation for 30 such schools for the years ending June 30, 1912, and June 30, 1913.

Character and amount of aid—Not exceeding \$2,500 a year on account of the maintenance of an agricultural and industrial department, and \$150 a year for each rural school associating itself with a Putnam school.

For what purpose—The maintenance of an agricultural and industrial department to consist of courses in agriculture, manual training, and home economics.

Requirements to be met—The employment of trained instructors whose qualifications are approved by the State High-School Board, and provision for a tract of land suitable for school garden and purposes of experiment and demonstration containing not less than 5 acres. “The instruction in such agricultural and industrial department shall be of a practical character, dealing with soils, crops, fertilizers, drainage, farm machinery, farm buildings, breeds of live stock, live-stock judging, animal diseases and remedies, production of milk and cream, testing of same, manufacture of butter and cheese, horticulture, gardening, plants, and such other questions as have a direct relation to the business of farming, including book-keeping and farm accounts. It shall also include systematic courses in manual training, and in home economics, as these are usually taught in public schools.”

Administered by—The State Department of Public Instruction through the State High-School Board.

Benson-Lee Act

Law—"An Act to Provide for the Teaching of Certain Industrial Subjects in High and Graded Schools, and Fixing the Amount of State Aid for Such Instruction, and the Manner of Its Payment," approved April 7, 1911.

Number and kind of schools aided—Any high school or graded school, the number being limited by a state appropriation for 50 such schools in 1912 and 1913.

Character and amount of aid—One thousand dollars annually.

For what purpose—The maintenance of a course in agriculture and either in home economics or in manual training.

Requirements to be met—The State High-School Board has prescribed rules requiring that the courses authorized by this law shall be maintained throughout the school year, and that in addition to the longer course each school shall offer a free winter short course of not less than 3 months. The instructors shall have had training in their respective lines in technical schools, those in agriculture being graduates of an agricultural college or having an equivalent technical training. Suitable rooms and equipment shall be provided, and the instructor in agriculture shall have a room exclusively for his work, shall be provided with laboratory facilities, and shall have not less than a continuous half-day for agricultural work. He shall make a close study of local conditions, and attend markets, horticultural meetings, meetings of creamery and stock-breeding and other associations, and such other gatherings as afford opportunity to make the acquaintance of farmers. The work in agriculture is to include textbook work, laboratory courses, special work along some line of local interest, such as dairying, corn breeding, poultry, etc., institute work in co-operation with the extension division of the State College of Agriculture, and a winter short course. Two satisfactory daily periods in an industrial subject or subjects are held to count as a credit.

Administered by—The State Department of Public Instruction through the State High-School Board.

NEW YORK

Law—Education Law 1910, art. 22.

Number and kind of schools aided—Any city school or union free school.

Character and amount of aid—The sum of \$500 to each city and union free school for each independently organized school (here meaning nearly the same as "department" or "course" in other states) "of agriculture, mechanic arts, and home-making, maintained therein for 38 weeks during the school year and employing one teacher whose work is devoted exclusively to such school, and having an enrolment of at least 25 pupils and maintaining a course of study approved by him," and the further sum of \$200 for each additional

teacher thus employed. "The Commissioner of Education may in his discretion apportion to a district or city maintaining such schools or employing such teachers for a shorter time than 38 weeks, an amount pro rata to the time such schools are maintained or such teachers are employed."

For what purpose—To be used exclusively for the support and maintenance of schools of agriculture, mechanic arts, and home-making, independently organized but forming a part of the public-school system.

Requirements to be met—The school or course in agriculture, mechanic arts, and home-making must be maintained 38 weeks to secure in full the benefits of this act, must have an enrolment of at least 25 pupils, employ a teacher or teachers "holding a special agricultural-school certificate and devoting their entire time to the teaching of agriculture, mechanic arts, cooking, sewing, bookwork relating to agriculture, etc.," and must conduct a course of study approved by the State Department of Education. The State Department announces that "classes of book study only in agriculture and home-making are not entitled to the benefits of the law establishing these courses," and recommends that the "practical phases of work in these courses should extend through at least one-third of the weekly program, and more if school conditions permit."

Administered by—The New York State Education Department through its division of trade schools.

NORTH DAKOTA

Law—Laws of 1911, chap. 40, approved March 18, 1911.

Number and kind of schools aided—Any state high school, graded, or consolidated rural school having facilities to do agricultural work, the number being limited to 5 the first year, and an additional number of not more than 5 every two years thereafter. Owing to a veto by the Governor of the appropriation to carry out the provisions of this act for 1912, there will be no funds for these schools until 1913.

Character and amount of aid—Each school will be entitled to \$2,500 a year of state aid but will not participate in the state aid now being given to the state high schools—\$600 to \$800 a year.

For what purpose—The maintenance of an agricultural department.

Requirements to be met—The employment of trained instructors in agriculture, manual training, and domestic science, provision for a tract of land suitable for a school garden and purposes of demonstration containing not less than 10 acres, and located within one mile of the school building, the maintenance of special winter courses when necessary to accommodate a reasonable number of boys and girls, and the giving of instruction in soils, crops, fertilizers, drainage, farm machinery, farm buildings, breeds of live stock, stock judging,

animal diseases and remedies, production, testing and hauling of milk and cream, the manufacture of butter and cheese, the growth of fruit and berries, management of orchards, market garden and vegetable crops, cereal grains, fine seeds, bookkeeping and farm accounts, and all other matters pertaining to general practice.

Administered by—The State High-School Board.

TEXAS

Law—Acts of Thirty-second Legislature, chap. 26, sec. 3, approved March 6, 1911, became a law June 11, 1911.

Number and kind of schools aided—Any high school of the first, second, or third class. A high school of the first class is one which maintains at least four years of work above the sixth grade and employs at least two teachers of high-school subjects; a high school of the second class, three years and two teachers; and a high school of the third class, two years and one teacher.

Character and amount of aid—In high schools of the first and second class the state will duplicate local appropriations within the following limits: agriculture, \$500 to \$1,500; domestic economy, \$500 to \$1,000; and manual training, \$500 to \$1,000. In high schools of the third class state aid is confined to courses in agriculture, \$500 to \$1,000. No school may receive in one year more than \$2,000 from the state, and "such appropriation shall not be made more than twice to the same school." Fifty thousand dollars a year has been appropriated to meet the requirements of this law in 1912 and 1913.

For what purpose—Establishing, equipping, and maintaining courses in agriculture, domestic economy, and manual training.

Requirements to be met—The local board shall provide ample room and laboratories for teaching each subject and, in connection with the department of agriculture, shall provide a tract of land suitable to the production of farm and garden plants, and shall employ a teacher who has received special training for giving efficient instruction in agriculture. The State Superintendent of Public Instruction has decided upon a minimum of 3 acres of land suitable for agricultural purposes to be owned by each school applying for state aid for agriculture.

Administered by—The State Board of Education.

Grants of aid are made, upon recommendation of the State Superintendent of Public Instruction, only to those schools which give evidence that after state aid is withdrawn they will continue to maintain the special departments.

VIRGINIA

Law—Item in appropriation bill of 1908-9 and acts of 1910, p. 362.

Number and kind of schools aided—At least one public high school in each

congressional district (10 in number) in the state. There are 10 of these schools now in operation.

Character and amount of aid—In the appropriation bill \$20,000 a year was given for apportionment among these schools. By the act of 1910 the amount was increased to \$30,000 annually, and for the year ending February 28, 1912, the further sums of \$25,000 for the purpose of providing buildings and equipment for these schools, and \$10,000 for "traveling, demonstration, and extension work to be connected" with them.

For what purpose—Maintaining "a thorough course in agriculture, the domestic arts and sciences, and manual training, . . . and at least one-fourth of the school time shall be devoted to these subjects." All female students attending these schools shall be instructed in domestic sciences and arts as required subjects and may also elect agriculture. These schools may also be used as centers for directing farm demonstration work and other extension work throughout the several congressional districts, under regulations prescribed by the State Board of Education and the State College of Agriculture.

Requirements to be met—Not less than 5 acres of land convenient to the school to be cultivated by the students, as far as practicable, for demonstration purposes. Suitable buildings and equipment, including shops for elementary manual training, benchwork, and other forms of shopwork applicable to rural life. The district boards shall provide suitable equipment for domestic-science instruction.

Administered by—The State Board of Education.

By the acts of 1910 the boards of supervisors in the several counties of the state are authorized to appropriate such sums of money as to them may seem proper for the establishment, equipment, or maintenance of the schools referred to above.

WISCONSIN

Law—Laws of 1911, chaps. 544, 545.

Number and kind of schools aided—Any "free high school or a high school having a course of study equivalent" thereto.

Character and amount of aid—State aid amounting to \$250 for each special department maintained only in the high-school years, or \$350 for each such department maintained in the high school and "the three upper grades next below the high school." The maximum that any school can receive is \$1,050 a year.

For what purpose—To establish and maintain departments of manual training, domestic economy, and agriculture.

Requirements to be met—The carrying out of a course of study or outline of work in manual training, domestic economy, or agriculture, approved by the State Superintendent of Public Instruction, and the employment of qualified

teachers, whose salaries "shall be at least at the rate of \$60 per month." A course of study involving 4 units in agriculture and agricultural chemistry has been outlined, together with suggestions concerning apparatus, equipment, and supplies, which outline has been approved by the State Superintendent of Public Instruction and published as a bulletin of the University of Wisconsin.

Administered by—The State Superintendent of Public Instruction.

From these statements it will be seen that state aid varies in the different states from \$250 to \$3,000 to each school, that the number of schools receiving state aid is usually limited by the size of a lump sum appropriation, and this appropriation varies from \$10,000 in Massachusetts to \$125,000 in Minnesota.

Louisiana and Massachusetts give state aid for agriculture alone, Kansas for agriculture and home economics, while the other eight states include agriculture, home economics, and manual training or farm mechanics. The requirements to be met as to equipment and local expenditures are in the case of eight of the states partially included in the legislative enactments but in Louisiana, Maryland, and Massachusetts practically all requirements are prescribed by the state authorities designated to administer the laws. These state authorities are in every case members of the state board of education, or, as in Louisiana, Massachusetts, and New York, special officers appointed by the state board of education. In Louisiana the special officer in charge of agricultural courses in high schools is also an officer of the state agricultural college. In New York this officer is a member of the staff of the state department of education and he has charge of the corps of district supervisors of elementary schools who are appointed as the result of civil-service examinations and are required to give special attention to nature-study and elementary agriculture in the schools under their supervision.

The requirements to be met by the schools receiving state aid vary greatly in the different states, but in the main they include the employment of teachers having special training for their work, provision for suitable laboratories and laboratory equipment, land for educational work in agriculture, and the giving of courses of study approved by the state authorities in charge.

ADVANTAGES OF A SYSTEM OF STATE AID FOR AGRICULTURAL AND INDUSTRIAL SUBJECTS

As a system for the development of agricultural and industrial education, state aid possesses many advantages over any system depending solely upon local initiative. In the first place it usually insures better

equipment. These are primarily laboratory rather than textbook subjects, and adequate equipment is essential to success in teaching them. Laboratories, special apparatus, and land are needed, and these are much more likely to be provided if state aid depends upon them than under a system depending entirely upon local initiative for development.

Secondly, state aid carries with it a certain amount of state supervision, and this can more easily be made expert supervision than where everything concerning courses of study and methods of teaching are left to town or county superintendents. Three of the states have already employed experts to supervise the work in agriculture in state-aided schools, and at least one other state would employ a supervisor at once if the right man could be found. The lack of expert supervision is quite generally recognized as one of the greatest weaknesses of our public-school systems, and anything that will help to overcome this weakness should be actively promoted.

And finally, state aid will greatly stimulate the introduction of agriculture, home economics, and farm mechanics into our public high schools, and contribute materially to the success and permanence of this work. This will be accomplished because higher salaries will be paid and better teachers will be secured and retained. With the present demand for teachers of agriculture it is almost impossible for an unaided high school to secure an agricultural-college graduate and keep him for more than one year. Competent teachers of agriculture command higher salaries than those in any other high-school subject. One of the state-aided schools last year paid its teacher of agriculture \$1,400 and its principal \$950. It is not uncommon for agricultural-college graduates to get \$1,200 to \$1,500 the first year out of college, and in fact the average salary of 95 such graduates in 1910 who accepted positions as teachers or investigators was \$1,017. Very few unaided high schools would feel able to employ special teachers at such salaries.

But if agriculture is to be taught in public high schools, it is highly important that good teachers, well trained technically, be employed and retained year after year. There are numerous examples of high schools that have developed excellent work in agriculture, helpful alike to the pupils and to the farmers of the community, only to have it deteriorate greatly or lapse entirely with the loss of the teacher responsible for developing it. State aid would tend, and is now tending, to overcome this difficulty by making higher salaries available and by creating a

permanent general policy with reference to the development of high-school instruction in agriculture. Agricultural-college graduates are more willing to accept high-school positions in states committed to such a policy. The building up of a well-paid and stable teaching profession is a matter of the utmost importance in this country, and if the appropriation of a few thousand dollars a year by state legislatures will contribute to this end and at the same time help to prepare young men and young women for better service on the farm, in the shop, and in the home, it is well worth trying.





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