UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF EDUCATION WASHINGTON

RECEIVED

APR 1, 1939
Supt of Public instruction

March 29, 1939

Honorable Floyd I. McMurray
State Superintendent of Public Instruction
Indianapolis, Indiana

Dear Superintendent McMurray:

We have undertaken the project of writing the story of agricultural education, of less than college grade, in the United States, based upon its historical development. It is our desire that every State shall be completely and justly covered.

On March 8, Mr. Rufus W. Stimson, Supervisor Emeritus of Agricultural Education, in Massachusetts, was appointed Research Specialist in Agricultural Education in this Office for the purpose of assisting in this project. I am enclosing a copy of "Hist. Ag. Ed. No. 2", in which Mr. Stimson has suggested the scope of the study which he will undertake.

In order that your State may be accurately and amply included, will you designate two persons with whom Mr. Stimson may work directly in assembling historical data and in drawing conclusions, as follows: (l) One representing general education and agricultural courses therein, and (2) One representing the separate field of vocational education in agriculture. These persons will be asked to serve in an advisory capacity. In addition, they will assist in making available source materials.

You will do us a great service if you will cooperate with us in this manner and will send me the names and addresses of the two persons whom you select and authorize to help in this important undertaking.

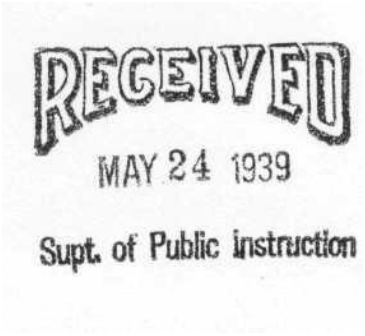
Cordially yours,

J. W. Studebaker

Commissioner

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF EDUCATION
WASHINGTON



May 23, 1939

Hon. Floyd I McMurray,
State Supt. of Public Instruction,
Indianapolis, Indiana.

Dear Superintendent McMurray:

We are delighted with your ready response to Dr. Studebaker's invitation of March 29 last, to assist in our Study for a Story of Agricultural Education of Less than College Grade in the United States.

To each of the persons you have designated to work with me directly, I have sent our Hist. Ag. Ed. No. 4 and Ho. 6; and to each President of a Land-Grant College or University, our Hist. Ag. Ed. No. 6.

Copies of 4 and 6 are attached to this letter for your more complete information.

Sincerely yours,

Rufus W. Stimson

Rufus W. Stimson
Research Specialist in Agricultural Education

Enclosures RWS:L

May 11, 1939

Mr. Rufus W. Stimson
Research Specialist in
Agricultural Education
United States Office of Education
Washington, D. C.

My dear Mr. Stimson:

I recently advised Mr. Studebaker that I had designated the following persons to serve in an advisory capacity to the writing of the story of agricultural education of less than college grade:

Mr. Paul Boston, Superintendent City Greencastle, Indiana.

Mr. L. A. Wood, Vocational Agriculture Teacher Montmorenci, Indiana

These two gentlemen held a preliminary meeting in my office today and desire that I advise you of their avail-ability and willingness to service in an advisory capacity.

We note, however, that the outline submitted from the Office of Education calls for extensive study and considerable research which, of course, Mr. Boston and Mr. Wood would not be in a position to undertake.

May I suggest that you contact these two gentlemen at your early convenience and inform them of your plans for the consummation of this study?

Very truly yours,

Floyd I. McMurray
State Supt. of Public Instruction

MoM : F

April 30, 1940
Lafayette, Indiana

PURDUE UNIVERSITY
in relation to
AGRICULTURAL EDUCATION OF LESS THAN COLLEGE GRADE

by
Z. M. Smith State Supervisor of Agricultural Education
and
State 4-H Club Leader

ESTABLISHED

Purdue University was established by the General Assembly of Indiana and is supported by the state with assistance from the federal government.

It is a land-grant institution and owes its origin to the "Morrill Act" passed by Congress on July 2, 1862.

On March 6, 1865, the General Assembly of Indiana voted to avail itself of the provisions of the Morrill Act.

In 1869, the General Assembly accepted from John Purdue, a businessman of Lafayette, Indiana, and other public-spirited citizens of Tippecanoe County, the sum of $200,000 and a tract of one hundred acres of land. It was also voted that the institution to be established should have "the name and style of 'Purdue University'" and that "said name and style shall be the permanent designation of said institution, without addition thereto or modification thereof,"

Some instructional work was organized in the spring of 1874, under the immediate supervision of Professor John Hougham, but the first regular class was matriculated in September 1874. The first instructional work in agriculture was offered by Professor Charles L. Ingersoll in 1879. He was followed in 1882 by Professor W. C. Latta under whose direction the agricultural courses of study were thoroughly revised. In 1884 Professor James Troop was added to the agricultural staff.

PRESIDENTS OF THE UNIVERSITY

The roster of presidents of Purdue University is as follows:

DR. RICHARD OWEN, 1872-1874.

MR. ABRAHAM C. SHORTRIDGE, 1874-1876.

Prior to his appointment as president of Purdue, he was superintendent of the public schools of Indianapolis.

DR. EMERSON E. WHITE, 1876-1883.

At the time of his appointment, he was an editor, author, and educator of national reputation. He had been superintendent of public Instruction of the State of Ohio.

DR. JAMES HENRY SMART, 1883-1900.

He had been superintendent of the public schools of Fort Wayne, Indiana, and had served three terms as state superintendent of public instruction in Indiana.

DR. WINTHROP ELLSWORTH STONE, 1900-1921.

Dr. Stone had been for many years head of the department of chemistry and vice president of the University.

FOLLOWING the death of President Stone in the summer of 1921, Mr. Henry W. Marshall, a member of the board of trustees, was appointed acting president, and Dr. Stanley Coulter, dean of the school of science and dean of men, was appointed chairman of the faculty. They jointly administered the affairs of the University until September 1922.

Purdue University and
agricultural education by
Z.M. Smith, April 30, 1940

DR. EDWARD CHARLES ELLIOTT, 1922-

Dr. Elliott was chancellor of the University of Montana at the time the board of trustees invited him to become president of Purdue University. He entered upon his duties at Purdue on September 1, 1922.

PURPOSE OF THE UNIVERSITY

The main purpose of the University has been to train men for service in the fields of engineering, agriculture, pharmacy, and applied science.

While the major part of the work of the University appeals to men, more than one thousand women enroll each year in the school of home economics and general science courses.

RELATIONSHIPS BETWEEN PURDUE UNIVERSITY AND THE PUBLIC SCHOOLS OF INDIANA

I. STATE BOARD OF EDUCATION

In 1875, the president of Purdue University was added to the membership of the state board of education. (Thin board was established by law in 1852. The first meetings of the board were held June 7-8, 1853.) Each president of Purdue, except the first, has served as a member of the state board of education.

II. STATE SUPERINTENDENT OF PUBLIC INSTRUCTION

Dr. James Henry Start, fourth president of Purdue University, was state superintendent of public instruction in Indiana six years. He served as state superintendent prior to his service as president of Purdue.

III. AGRICULTURAL EDUCATION OF LESS THAN COLLEGE GRADE

a. During the administration of Mr. Fassett A. Cotton, as state superintendent of public instruction, 1903-1909, the study of agriculture was given an important place in the public schools of Indiana, Members of the staff of the school of agriculture, Purdue University, cooperated with superintendent Cotton in preparing courses of study in agriculture for use in the elementary and high school grades. Among the most active cooperators in this service were Professor M.L. Fisher and Professor George I. Christie. Professor Fisher was a member of the staff in the department of agronomy and Professor Christie was director of the department of agricultural extension. (The extension service was then a division of the agricultural experiment station. It was created as a separate department in 1911.)

Professor Fisher collaborated with superintendent Cotton in writing a text entitled "Agriculture for Common Schools."

Interest created in the teaching of agriculture during the administration of superintendent Cotton increased from year to year until in the school year 1911-1912 agriculture was taught in 3713 elementary schools in 64 counties and in 366 high schools in 68 counties.

b. Commission on Industrial and Agricultural Education in Indiana.

On March 4, 1911, the General Assembly of Indiana approved an act to provide for an investigation of the needs for and methods of industrial and agricultural education in Indiana. Pursuant to this act, Governor Thomas R. Marshall appointed as members of the commission the following:

John G. Brown, Monon, a farmer; Frank Duffy, Indianapolis, secretary of the United Brotherhood of Carpenters and Joiners; Thomas F. Fitzgibbon, Columbus, superintendent of schools; John L. Ketcham, Indianapolis, a manufacturer; Ulysses G. Weatherly, Bloomington, head of the department of economics in Indiana University; Will A. Yarling, Shelbyville, a lawyer and farmer; and Frank D. McElroy, Hammond, high school principal.

The commission held, hearings and made investigations in all parts of the state.

At the request of the commission, made by resolution October 15, 1911, President W. E. Stone, Purdue University, appointed an advisory committee on agricultural education, consisting of G. I. Christie, director of the department of agricultural extension, J. H. Skinner, Dean of the school of agriculture, and George L. Roberts, head of the department of education. These men participated in the hearings and investigations conducted by the commission.

c. Indiana Vocational Education Act.

The Indiana vocational education act, approved February 22, 1913, resulted from the hearings, investigations, and recommendations of the commission on industrial and agricultural education. The bill for the act was introduced by Joseph B. Stahl, representative in the House, from Fountain County, and by senator Will A. Yarling of Shelby County, who had served as chairman of the commission.

This act provides for vocational instruction of less than college grade in all-day, parttime, and evening classes in agriculture, home economics, and trades and industry.

The act levied one cent on each one hundred dollars of taxable in the state to provide funds for the purposes of the act.

The act obligated the state to reimburse school corporations in the amount of two-thirds of the sum expended for instruction in vocational and technical subjects authorized and approved by the state board of education.

In 1919 the act was amended to provide that reimbursement shall be one-half of the sum expended for approved instruction. In 1923, the act was amended as it now stands to provide that reimbursement shall not exceed one-third of the sum expended for approved instruction.

d. State Supervisor of Agricultural Education.
Section 8 of the Indiana vocational education law provides that "the state superintendent, with the approval of the state board of education, is authorized to cooperate with Purdue University In the appointment of some person actively connected with the agricultural extension work at Purdue as an agent in supervising agricultural education, who shall serve in a dual capacity as an agent of the state superintendent and as an assistant at Purdue University."

Mr. Z. M. Smith was appointed for this service in June 1913. He has served continuously in this capacity from the date of his appointment. Also, he has served continuously since September 1, 1912, as state 4-H club leader in the agricultural extension department, Purdue University. (He served also as state director of vocational education in Indiana from 1923 to 1936.)

e. Courses of Study in Agriculture.
Under the supervision of Z.M. Smith as state supervisor of agricultural education, the following members of the faculty of the school of agriculture, Purdue University, prepared courses of study in agriculture for the seventh, eighth, and high school grades: R.C.E. Wallace, assistant professor of soils; Martin L. Fisher, professor of crop production and management; William W. Smith, assistant professor in animal husbandry; C.G. Woodbury, professor in horticulture; Ralph E. Caldwell, instructor in dairy husbandry; A.G. Phillips, assistant professor in poultry husbandry. These courses were published, under date of August 1913, by the state department of public instruction.
Supplementary to these courses in agriculture, four bulletins entitled "Helps for Teachers of Agriculture and Domestic Science" were prepared by the men who were authors of the courses of study. These supplementary bulletins were published and distributed to teachers by the state department of public instruction.
The courses of study published in August 1913, were revised by the authors, under the supervision of Z.M. Smith, with the addition of William Aitkenhead, head of the department of agricultural engineering and C.B. Sayre, instructor in the department of horticulture, Purdue University. They were published in revised form, under date of April 1915, by the state department of public instruction.
It is now the practice of the staffs of the school of agriculture and of the department of agricultural extension, Purdue University, to assist the state supervisor of agricultural education and teachers of agriculture in the preparation and development of courses of study in agriculture for all-day, part-time, and evening classes.
Under date of August 1917, the state department of public instruction published a bulletin of 395 pages entitled "COURSES IN AGRICULTURE ON THE HOME PROJECT BASIS." This bulletin was prepared by Z.M. Smith, state supervisor of agricultural education. An edition of 20,000 copies was printed. The supply was exhausted within two years. The bulletin was in demand not only in Indiana but throughout the United States.

During recent years, each school corporation has been required to determine its own curricula and outline its own courses of study for all-day, part-time, and evening classes in agriculture. These curricula and courses are based upon the natural and human resources of the community and are designed to meet the community needs for agricultural improvement and well-being. Each school analyzes each farm enterprise in its curricula into teaching jobs. The teacher develops a detailed lesson plan for each of these units or jobs. The pupils, through supervised farm. practice on their home farms, secure experience in applying to the solution of actual farm problems the scientific, economic, and management principles studied and discussed in the school room.

f. County Teachers' Institutes.

The first annual report of the department of agricultural extension was for the year ended June 30, 1912. Director G. I. Christie said in this report:

> "Throughout the state there has been an active movement for the introduction of agriculture, domestic science and manual training into the schools. This movement has resulted in a large demand upon this department, from the teachers of the state, for assistance in the way of literature, exhibits, lectures, etc. In order that the teachers might be given some definite help along agricultural lines, instructors were sent to a large number of county teachers' institutes to give practical demonstrations in the methods of teaching agriculture."

In succeeding reports Director Christie makes the following statements regarding instruction in agriculture in teachers' institutes:

Second Annual Reports "Instructors in agriculture and domestic science were furnished to teachers' institutes to give practical demonstrations in methods of teaching these vocational subjects. Instructors attended institutes in twenty-seven counties."

Third Annual Report: "Instructors were sent to county and township institutes and county teachers' association meetings to give practical demonstrations on the best methods of teaching agriculture and domestic science. These instructors did eighty-seven days' work in thirty counties."

Fourth Annual Report: Instructors from Purdue rendered 116 days' service at 35 county and 76 township teachers' institutes.

Fifth Annual Report: Special instruction in agriculture and home economics was given at 15 teachers' institutes.

Institute instruction by extension workers was discontinued upon the entrance of the United States into the World War and the consequent major demand for a different type of agricultural extension service.

g. County Agricultural Agents,

Section 12 of the Indiana Vocational Education Act makes provision for the establishment and maintenance of the services of a county agricultural agent and assistants in each county in Indiana.

The act makes Purdue University responsible for the appointment of county agents and for the supervision of their work. Among the duties which the act imposes upon the county agricultural agent is that of aiding "the county superintendent of schools and the teachers in giving practical education in agriculture and domestic science."

In fulfilling this duty, county agents assist in establishing departments of vocational agriculture in high schools, in determining agricultural curricula for these departments and for part-time and evening classes in agriculture, and. in outlining courses of study for these three types of classes and for the seventh and eighth grades.

Mr. T. A. Coleman has served continuously as state leader of county agent work since the inception or the service in June 1913. Under his able leadership, the county agents have cooperated fully and helpfully with the state supervisor of agricultural education and teachers of agriculture in establishing and conducting agricultural instruction in high schools, in seventh and eighth grades, and in part-time and evening classes.

h. Itinerant Teacher Trainers in Vocational Agriculture,
Purdue University cooperates with the state department of public instruction in employing itinerant teacher trainers in vocational agriculture, whose duties consist of (l) assisting teachers in service in improving instruction in all-day. part-time, and evening classes, and (2) serving as assistant state supervisors of agricultural education. Six men are now engaged in itinerant teacher trainer service. They are employed as members of the division of education and applied psychology, Purdue University.

i. Vocational Agriculture Teacher Training.
Purdue University was designated, by the state board of education, in 1914, as the institution to train men for teaching vocational agriculture.
The following vocational agriculture teacher training course prepared, in 1915, by Z.M. Smith, state supervisor of agricultural education, has been used, with modifications, throughout the years by the University in training teachers of vocational agriculture:

Four Year Course for Training Teachers of Vocational Agriculture

Prepared in 1915 by Z.M. Smith State Supervisor of Agricultural Education

FRESHMAN YEAR

First Semester / Second Semester

Required	Semester Hours	Required	Semester Hours
Poultry	3 ½	Types and breeds of farm animals	3 ½
Farm mechanics	3	Vegetable growing	3
Biology	5	Biology	5
General Chemistry	5	General Chemistry	5
English Composition and lit	3	English Composition and lit	3
Elective (one of the following)		Elective (one of the following)	
Entomology	2	Entomology	2
Botany	2	Botany	2
Public Speaking	3	Public Speaking	3

SOPHOMORE YEAR

First Semester / Second Semester

Required	Semester Hours	Required	Semester Hours
Soils	3 ½	Farm Crops	3 ½
Fruit Growing	3 ½	Dairy Husbandry	3 ½
U.S. History and civics	4	U.S. History and civics	4
Economics	4	Economics	4
Elective (one of the following)		Elective (one of the following)	
Chemistry	3 ½	Chemistry	3 ½
Mathematics	4	Commercial Law	4
English Composition and lit	4	English Composition and lit	4
		Blacksmithing	3 ½

JUNIOR YEAR

First Semester / Second Semester

Required	Semester Hours	Required	Semester Hours
Livestock Judging	3	Fam practice	3 ½
Farm practice	3 ½	General and Education psychology	4
General and Education psychology	4	General methods and teaching agriculture	4
History and principles of teaching	4	Observation of teaching agriculture	1 ½
Observation of teaching agriculture	1 ½	Elective (one of the following)	
Elective (one of the following)		Bacteriology	4
Bacteriology	4	Farm mechanics	3 ½
Diseases of orchard and small fruit	3 ½	Languages (Ancient or Modern)	5
Languages (Ancient or Modern)	5	School Hygiene	3

SENIOR YEAR

First Semester

Required	Semester Hours
Feeding livestock	3 ½
Farm management	3 ½
Sociology	3
School organization and management	4
Practice teaching of agriculture	2 ½
Elective (one of the following)	
Extension methods of agriculture	3
Physics	3 ½
Languages (Ancient or Modern)	5

Second Semester

Required	Semester Hours
Livestock management	3 ½
Farm management	3 ½
Sociology	3
School organization and management	4
Practice teaching of agriculture	2 ½
Elective (one of the following)	
Practical legislation	3
Physics	3 ½
Diseases of livestock and poultry	3 ½
Child study	3

PRESENT CURRICULUM FOR TRAINING VOCAITONAL AGRICULTURE TEACHERS

(As outlined in Indiana Plan for Vocational Education and administration at Purdue University)

FRESHMAN YEAR

First Semester	Semester Hours	Second Semester	Semester Hours
Biology 1	3	Biology	3
Chemistry 11 or 21	3 or 4	Chemistry 12 or 22	3 or 4
English 1	3	English 14	3
Animal Husbandry 4	3	Animal Husbandry 7	3
Agronomy 15	3	Agricultural Engineering 11	2 1/3
Farm Management 1	2 2/3	Entomology 1	3
Military Training 1	1 1/3	Military Training 2	1 1/3

SOPHOMORE YEAR

First Semester	Semester Hours	Second Semester	Semester Hours
Biology 18	4	Physics	3
Chemistry 29	3	Chemistry 30	3
Agronomy 2	2 2/3	Agronomy 11	3 1/3
Agronomy 22	3	Horticulture 21	3
Mathematics 9	3	Animal Husbandry 25	3
English 31	3	Economics 11	3
Military Training	1 1/3	Military Training 4	1 1/3

JUNIOR YEAR

First Semester	Semester Hours	Second Semester	Semester Hours
Animal Husbandry 108	3	Agricultural Chemistry 108	3
Agricultural Chemistry 107	3	Agricultural Engineering 32	3
Biology 14	4	Biology 119	4
Economics 12	3	Farm Management 3	3
Psychology 1	3	Psychology 2	3
Education 3a Principles of Secondary and Vocational Education	3	Education 4 Principles of Teaching	3

SENIOR YEAR

First Semester	Semester Hours	Second Semester	Semester Hours
Farm Management 2	3	Biology 118	4
Biology 117	4	Animal Husbandry 21	3
Agronomy 4	3 1/3	Poultry 42	3
Horticulture 29	3	Dairy Husbandry 8	2 2/3
Education 17b Methods of teaching high school biology	2	Entomology 6	3
Education 12a Supervised teaching in vocational agriculture	1 ½	Education 11b Special methods in teaching vocational agriculture	2

Thesis	1 ½	Education 12b Supervised teaching in vocational agriculture	1 ½
		Thesis	1 ½

9

PRACTICAL STUDIES IE AGRICULTURE FOR PUBLIC SCHOOLS

(A bulletin of 40 pages prepared by Professor M. L. Fisher with the assistance of other staff members of the School of Agriculture of Purdue University. Published by Purdue University, December 6, 1904.)

Introduction

By W.E. Stone, President of Purdue University

This pamphlet, prepared by members of the School of Agriculture of Purdue University, is a continuation of a series of publications by the University intended to assist teachers in country schools to plan and administer simple exercises in the study of natural objects and materials.

These exercises are called studies in agriculture because they all have relation to farm practice. The primary purpose of such studies, however, is to interest the pupil in his surroundings. Those outlined here are calculated specially to show young people how to study in a simple but scientific way many common operations on the fans. In so doing they will learn the value of accurate comparison; of experiment and study; and, it is quite possible, may profitably apply some of the principles so learned to actual farm practice at their homes. If so, the results will be educational beyond the limits of the schoolroom, and distinctly helpful to parents as well as pupils.

Not all teachers or all pupils should undertake these studies. Only where there is a genuine appreciation of the value of such work on the part of the teacher and a real interest on the part of some pupil or pupils should they be undertaken, and then with care and patience. Probably only a small number of pupils will be interested at first. The work may be done out of school hours; a boys' farm club may be formed; their fathers may become interested.

The value of the experiments lies in the fact that they suggest reading, study, and discussion, and bring the school into relation with country life and affairs.

So far as able, the teachers at the School of Agriculture of Purdue will be glad to cooperate with schools which are interested in the work herein outlined or in the general questions involved in the movement to bring the country school into greater harmony with its environment,

NOTE TO THE TEACHER

By

Professor M.L. Fisher

This little pamphlet is not designed as a text. Its purpose is to furnish the teacher with a series of simple studies which may be made during the school term. It may be used alone or in connection with a text.

Unless agriculture has a definite place in the curriculum, it will not be wise to attempt to cover all these studies in a single school year, nor will it be wise to begin at the first and proceed in regular order to the last.

The beginning of work in the study of agriculture will require some little tact on the part of the teacher. Select those exercises which seem best adapted to your conditions and with which you are likely to awaken the most interest. Remember that it is interest in agriculture and country life that you are after, and not a lot of hard facts 'Set in a notebook, and learned, and conned by rote.'

(Studies in agriculture by M. L. Fisher, continued)

It should be your purpose to have your pupils fall in love with their environment and to have sympathy and appreciation for the animal, plant, and physical world about them, rather than to amass a store of facts concerning them.

Do not compel your pupils. Work with those who are interested, and the others will follow. Have a definite plan for the work, the same as for other schoolwork.

Enlist outsiders to help you. If you look about, you will be able to find men and women, some expert in one line, some in another. Get their help. The study of agriculture will furnish opportunity to unite the home and the school for which we have been so long looking. Above all have patience. Do not expect too much.

CONTENTS

Part I

Part II

Experiments for Home Study

Fifteen experiments are outlined in Part II. They deal with soils, crops, feeding farm animals, plant diseases, feeding for milk production, cleanliness and temperature affecting milk.