

A STUDY OF AGRICULTURAL OFFERINGS OF TWENTY-FOUR NON-TAX-SUPPORTED
COLLEGES IN TWELVE STATES WITH A PROPOSAL FOR THE
EXPANSION OF THE AGRICULTURAL OFFERINGS AT
ST. MARTIN OF THE PLAINS COLLEGE

A STUDY OF AGRICULTURAL OFFERINGS OF TWENTY-FOUR NON-TAX-SUPPORTED
COLLEGES IN TWELVE STATES WITH A PROPOSAL FOR THE
EXPANSION OF THE AGRICULTURAL OFFERINGS AT
ST. MARY OF THE PLAINS COLLEGE

By

Joseph P. Marak

"

Bachelor of Science

Oklahoma Agricultural and Mechanical College

Stillwater, Oklahoma

1952

Submitted to the Faculty of the Graduate School of
the Oklahoma Agricultural and Mechanical College
in Partial Fulfillment of the Requirements
for the Degree of
MASTER OF SCIENCE
1956

FEB 2 1930

A STUDY OF AGRICULTURAL OFFERINGS OF TWENTY-FOUR NON-TAX-SUPPORTED
COLLEGES IN TWELVE STATES WITH A PROPOSAL FOR THE
EXPANSION OF THE AGRICULTURAL OFFERINGS AT
ST. MARY OF THE PLAINS COLLEGE

REPORT APPROVED:

Robert L. Price

Major Advisor

Minor Advisor

Head, Agricultural Education Department

Dean of the Graduate School

436668

ACKNOWLEDGEMENT

The author wishes to express his sincere gratitude and grateful appreciation to Dr. Robert E. Price, Department of Agricultural Education, whose constant guidance and generous help carried the entire work to completion. Appreciation is also expressed to Professor Chris White, Department of Agricultural Education and to Professor Don E. Orr, Acting Head, Department of Agricultural Education, for their efforts in helping to prepare this report.

Appreciation is also expressed to Rev. Mother Mary Anne McNamara, General Superior of the Sisters of St. Joseph of Wichita, for the inspiration which she furnishes to those who can share in some small way her vision of the service which St. Mary of the Plains College can provide in strengthening the lives and living of young men and women of southwest Kansas and the surrounding territory.

This acknowledgment would be incomplete without giving due credit to Louise, my wife, for her effort to assist, encourage and inspire me throughout the writing of this report.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.	1
Purpose of Study	3
Methods Used in Securing Information	3
St. Mary of the Plains College	5
History and Aims of the College.	5
Objectives of St. Mary of the Plains College	7
Facilities	8
Buildings and Grounds.	8
Landscaping.	9
Library.	10
Aims	10
The Agriculture Program at St. Mary of the Plains College.	11
Need for the Study	12
Types of Farming	13
Soils of the Area.	14
Method of Procedure.	14
Summary of Chapter I	17
II. PRESENTATION OF DATA	18
Results of Surveys Made at St. Mary of the Plains College.	21
Summary of Findings and Analysis	72
III. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	74
Suggested Agricultural Program for St. Mary of the Plains College.	76
Suggested Curriculum for Agriculture at St. Mary of the Plains College.	76
Offerings Suggested to be Included in the Various Areas of Agriculture.	77
A SELECTED BIBLIOGRAPHY.	79

LIST OF TABLES

Table	Page
I. Responses of Twenty Selected Educators to the Question as to Needed Offerings in Agriculture for Rural Students Enrolled in Non-Tax-Supported Institutions of Higher Learning.	20
II. Data Secured From a Survey of Forty Male Students Attending St. Mary of the Plains College Relative to Need and Desire for Agricultural Courses	22
III. Course Offering in Crop Production of Certain Non-Tax-Supported Colleges.	24
IV. Course Offering in Animal Husbandry of Certain Non-Tax-Supported Colleges.	27
V. Course Offering in Dairy of Certain Non-Tax-Supported Colleges.	30
VI. Course Offering in Poultry of Certain Non-Tax-Supported Colleges.	33
VII. Course Offering in Horticulture of Certain Non-Tax-Supported Colleges.	35
VIII. Course Offering in Agriculture Engineering of Certain Non-Tax-Supported Colleges.	37
IX. Course Offering in Soil Conservation of Certain Non-Tax-Supported Colleges.	39
X. Course Offering in Farm Management of Certain Non-Tax-Supported Colleges.	41
XI. Course Offering in Animal Feeding and Production of Certain Non-Tax-Supported Colleges.	43
XII. Course Offering in Soils of Certain Non-Tax-Supported Colleges.	45
XIII. Course Offering in Agriculture Economics of Certain Non-Tax-Supported Colleges.	47
XIV. Course Offering in Vegetable Gardening of Certain Non-Tax-Supported Colleges.	49
XV. Course Offering in Survey of Agriculture of Certain Non-Tax-Supported Colleges.	50

LIST OF TABLES (CONT'D)

Table	Page
XVI. Course Offering in Special Problems of Certain Non-Tax-Supported Colleges.	51
XVII. Course Offering in Beef Production of Certain Non-Tax-Supported Colleges.	53
XVIII. Course Offering in Sheep Production of Certain Non-Tax-Supported Colleges.	55
XIX. Course Offering in Animal Nutrition of Certain Non-Tax-Supported Colleges.	57
XX. Course Offering in Swine Production of Certain Non-Tax-Supported Colleges.	59
XXI. Course Offering in Rural Sociology of Certain Non-Tax-Supported Colleges.	61
XXII. Course Offering in Veterinary Science of Certain Non-Tax-Supported Colleges.	63
XXIII. Course Offering in Range Management of Certain Non-Tax-Supported Colleges.	65
XXIV. Course Offering in Agriculture Education of Certain Non-Tax-Supported Colleges.	66
XXV. Areas of Agriculture in Which Instruction is Provided by Agriculture Departments of the Twenty-Four Colleges Reporting.	67
XXVI. Summary of Agricultural Course Offerings in Twenty-Four Selected Non-Tax-Supported Institutions of Higher Learning.	70

LIST OF FIGURES

Figure	Page
I. Location of the Twenty-Four Non-Tax-Supported Colleges Offering Agriculture.	16

CHAPTER I

INTRODUCTION

Private non-tax-supported institutions of higher education in the United States currently number over 1,210.¹ By far the vast majority of these institutions are liberal arts colleges, often functioning as preparatory units for students subsequently entering curricula in theology, medicine, law, psychology and related fields.

The few institutions definitely designated as schools of technical training are generally confined to the areas of engineering, and trade and industrial education. It is therefore seen that very little opportunity exists for students from rural areas who anticipate returning to farming and related occupations to secure the necessary training and yet attend private non-tax-supported institutions. In a sense this segment of the student population can be considered a neglected and perhaps forgotten group.

One need only to examine the statements regarding the functions and purpose of the private schools to observe the remarkable indifference with which the needs of this group of students are concerned. In some cases the statement is definitely made that the institution does not attempt to train or provide education for any specific occupation and further that the prevailing purpose is to provide a liberal and a general education.

The writer of this report having received his college training

¹The World Almanac and Book of Facts for 1955, p. 476.

largely in the field of technical agriculture and agricultural education became quite concerned when he entered the teaching profession and observed such apparent indifference to the needs of certain students who desired to continue their education in a private institution but planned to return to rural communities and engage in farming or related occupations.

The writer was unable to discover any research covering institutions of higher education in the non-tax-supported group which dealt with the technical agriculture provided by such institutions, although some studies were discovered which provided certain information as to programs planned by a few individual schools.

Colby² stated as his purpose "to determine, by use of a survey, the intentions and future plans of the agriculture students attending Abilene Christian College and from this information arrange a course study in agriculture that will meet the needs of a large percentage of the students." This report included a proposed curriculum leading to the degree of General Agriculture, and also included an extensive portion under the heading, "Justification for Course Arrangement."

²T. W. Colby, "A Training Program in Agriculture at Abilene Christian College for Boys Returning to the Farm." (Unpublished Master's Report, Oklahoma Agricultural and Mechanical College, Stillwater, 1951), p. 1.

Purpose of the Study

The purpose of this study was to determine what justification exists for the expansion of the agricultural program offered at St. Mary of the Plains College.

A related purpose was to determine, through studies of the curricula offered in other non-tax-supported colleges, the extent to which training in agriculture is provided for students attending these schools.

A further purpose was to develop a suggested program for expanding the offering in agriculture at St. Mary of the Plains College.

Methods Used in Securing Information

Requests were made to three hundred twenty-six non-tax-supported colleges, for catalogs describing curricular offerings, these included colleges located in Kansas, Oklahoma, Nebraska, Texas, Colorado, Missouri, Arkansas, Arizona, New Mexico, Illinois, Montana, Wyoming, Ohio, Kentucky, Alabama, South Dakota, California, Iowa, Indiana, Utah, Nevada, Louisiana, Mississippi, North Carolina, Georgia, Florida, Tennessee, and South Carolina.

Personal interviews were made with fourteen selected agricultural educators in the states of Kansas and Oklahoma, including college instructors, institutional administrators and local vocational agriculture instructors. These interviews were made for the purpose of securing opinions and judgments from these educators regarding the need for and the type of agricultural offerings feasible in the smaller non-tax-supported school.

In order to obtain further information, questionnaires were sent to other selected agricultural educators in Kansas, Oklahoma, Nebraska, and

4

Colorado, including college instructors, institutional administrators, and vocational agriculture instructors.

As a further aid in obtaining data pertinent to the study, a survey was made of 40 male students attending St. Mary of the Plains College to aid in an appraisal of the needs as expressed by students for further training in agricultural occupations.

St. Mary of the Plains College

History and Aims of the College

St. Mary of the Plains College may have been anticipated by the little group of Sisters of St. Joseph who in 1896 secured the Charter which is the present legal basis of the Sisters of St. Joseph of Wichita. Among the purposes for which their corporation was chartered was included "the education of young women in literature, science, the arts, and such other studies as pertain to academical education, with power and authority to confer upon graduates of said institution Academical and Scholastic degrees and diplomas. In 1925 this charter was amended so as to authorize the Sisters to provide for the education "of young men as well as young women."³

Through the vision of the Most Rev. John J. Hennessy, D.D., Bishop of Wichita, the College had its origin in the old buildings known as Soule College, located northwest of Dodge City. These buildings were purchased by Bishop Hennessy, September 20, 1912, for the purpose of establishing an academy for the religious and cultural training of girls.

Soule College had been administered by a Presbyterian foundation established in 1888. Mr. A. T. Soule, patent medicine millionaire of Rochester, N. Y., gave generously to the erection of the school. The Rev. J. E. Wright, of the Presbyterian Church, was the first president.

The college was temporarily closed in 1890 for lack of funds. The Methodist Association took over in 1893 and classes were resumed under

³St. Mary of the Plains College Catalog, 1956-57, Dodge City, Kansas, pp. 9, 10, 11.

the presidency of E. H. Vaughn, Ph. D., until 1897, when the property became involved in litigation.

The Catholic foundation began operations in September, 1913, as St. Mary of the Plains Academy, with the Sisters of St. Joseph of Wichita as the teachers.

By October 2, 1914, work on the administration building was finished; and on October 26, the Academy of St. Mary of the Plains was dedicated by Bishop Hennessy. The first class was graduated on June 21, 1916.

In 1938, a silver jubilee celebration of the Catholic foundation was held. This was also the golden jubilee of the first foundation. The institution continued to serve the needs of the Midwest for three more years until it was destroyed by tornado in May, 1942.⁴

War-time and post-war conditions prevented the immediate re-establishment of St. Mary of the Plains, but in 1950 a new building to house both the High School and the College was begun on a nearly 120-acre site. The institution re-opened in the new building in September, 1952, with Sister M. Linus Gleason as Dean of the College.

From the beginning of the re-establishment Rev. Mother Mary Anne McNamara, General Superior of the Sisters of St. Joseph of Wichita, had served as President. In September, 1954, Mother Mary Anne relinquished the presidency to become Chairman of the Board of Trustees and the Board appointed to succeed her in the presidency Francis J. Donohue, Ph.D. In February, 1955, Sister M. Cecilia Agnes Bodino, who had been Registrar of the College since its opening, assumed the duties of Dean as well as

⁴Ibid.

those of Registrar.

The College has been approved by the Kansas Veterans' Commission, serving as the state approving agency for veterans' education under the United States Veterans Administration, and for attendance of alien non-immigrant students by the Immigration and Naturalization Service, United States Department of Justice and has become affiliated with The Catholic University of America, Washington, D.C.

Objectives of St. Mary of the Plains College

St. Mary of the Plains College, as an institution of Catholic higher education, seeks to assist its students in the development of that harmonious integration of the intellectual, the physical, and the spiritual faculties by which St. Thomas Aquinas defines true education. Training of this type, to the extent to which it has been successful, will prepare the student to take his place in our American democratic society and to live therein a full Christian life.⁵

As the chief responsibility of the school is to impart truth, St. Mary of the Plains College has as its specific aim to enlighten the intellect so that the student may know the truth; to develop the understanding so that he can draw principles from the truth he has learned; and finally to instill wisdom so that he may grasp the right ordering of all things. The student, having thus attained to wisdom, will be drawn to "do the truth in charity."

⁵Ibid.

The courses of instruction are organized to give a balanced view of truth in the five fields of human knowledge; theology and philosophy, the social sciences, the natural sciences, the language arts, and the fine arts; they are made practical by application to the needs of the student in his fundamental relationships to God, society, nature and self.

The freshman and sophomore years are devoted chiefly to general education as a basis for future study in various major fields and as a fulfillment of terminal education requirements, should the student not continue his work beyond the sophomore year. The courses are designed to meet those needs which are universal regardless of one's occupation or status in life. The upper level courses permit of some specialization and provide opportunities for those students who are preparing for work in professional fields.

Facilities

Buildings and Grounds

The main building of the College houses all administrative and educational facilities, and all classes (with the exception of classes in physical education) are conducted in this building. A four-story structure of salmon colored brick, with harmonizing cut stone and aluminum trim, the building includes a Chapel with 120-foot carillon tower, cafeteria and kitchens, classrooms and laboratories for the various courses, the Little Theatre and snack bar which serves also as the Student Center, a four-room demonstration apartment for home economics, music studios and practice rooms, locker and shower rooms for athletics,

living quarters for the Sisters of the faculty, for approximately 150 boarding students, and for the Chaplains.⁶

St. Joseph's Hall, a separate men's dormitory building accommodating about 35 students, is located east of the main College building, with a parking lot adjoining.

A quonset-type building just north of the main building is used for physical education classes and for social and recreational purposes for which the Little Theatre, the Student Center and the main foyer are unsuited or too small.

These buildings are located near the center of a 120-acre campus, on three sides of which a shelterbelt area with over 5,000 young trees have been planted. Outdoor athletic and recreational facilities on the campus include a football field with sixty 1500-watt lights, a running track, a baseball diamond, a hockey field, and four "doubles" tennis courts constructed and equipped to serve also for outdoor basketball and volleyball and in the winter for ice skating.

Landscaping

Young shade trees and other plants suitable for landscaping have been planted along the road which runs on three sides of the main building, and irrigated lawns and a honeysuckle terrace extending the length of the building on the south side add further beauty to the setting.

There are balck-topped parking areas near the main south entrance of the main building and also north of the quonset, and a graveled one east of the quonset.⁷

⁶Ibid.

⁷Ibid.

Library

The College Library, located on the third floor of the main building, is served by a full-time Sister Librarian, with student assistants. While still small by comparison with college libraries in general, it has the advantage that most of its books are fairly recent accessions, chosen particularly with the needs of the present students and the requirements of the present courses in mind. About one thousand books were added to the library during the past twelve months, and in the spring of 1956 a total of 147 magazines and professional journals were being received.

Aims

Specifically St. Mary of the Plains College seeks;

1. To provide cultural training for young men and women.
2. To provide pre-professional training, particularly in fields in which the United States and especially the Southwest lack an adequate supply of competently trained, well-educated personnel. (For the present such training is provided for elementary and secondary teaching, for nursing, for medical technology and, at a pre-professional level, for engineering and for agriculture.)
3. To provide, especially for teachers, nurses, and hospital workers other than nurses, an opportunity for continued cultural and professional education beyond the minimum professional requirements.
4. To provide for the people of Southwestern Kansas, and of the Dodge City area in particular, such services in the field of general education, of music and art, and of the Christian interpretation of the

social sciences, as can be offered without curtailment of the other functions of the College.

5. To inculcate in all whom it reaches an appreciation of the beautiful and of the good in life, of the dignity of labor and of the rural life, and of the value both for this life and for the next of true Christian family living.⁶

6. To assist in the development of an understanding of, and sympathy for, the problems of those who differ from us in geographical location, in race, in religion, in nationality, or in occupation, and to encourage all to edify others by their Christian example.

The Agriculture Program at St. Mary of the Plains College

The present agriculture program at St. Mary of the Plains College consists of (1) a two-year pre-professional program in agriculture and (2) three agriculture courses.⁷

The two-year pre-professional program in agriculture is based on the requirements of the School of Agriculture at Kansas State College, Manhattan, and has been approved for this purpose by the School of Agriculture. A student who satisfactorily completes this program should be able, in two additional academic years after transfer, to complete the requirements for the professional Bachelor of Science curricula in General Agriculture or in Agricultural Administration.

⁶St. Mary of the Plains Catalog, 1956-57, Dodge City, Kansas, pp. 34, 40.

The three courses in agriculture offered at St. Mary of the Plains College are;

Home Landscaping--3 hrs. credit. This course is designed to aid the student to know principles of landscaping and to be able to design and execute a landscape plan. Special emphasis is given to plants best adapted to Western Kansas and their use in shelter belts and home beautification.

Agromony--3 hrs. credit. This course deals with the general methods of production, cultivation, harvesting and marketing of field crops. Also the origin, formation, and general composition of soils, and the economic importance of good management of field crops and soils.

Animal Husbandry--3 hrs. credit. This course is a survey of the field of animal husbandry; the economic importance of practical production, marketing, breeding and feeding of dairy cattle, beef cattle, swine, sheep and poultry.

Need for the Study

The two-year agriculture program now being offered is quite satisfactory for those students who wish to major in General Agriculture or Agricultural Administration at another college, but some difficulty is encountered in selecting and arranging the proper courses into the student's schedule so as to insure a student's graduation after completing two additional years of instruction. If, in the future more definite arrangements can be made to enable the student to take some agricultural courses which will be accepted, on transfer to other institutions, with full credit, this will provide more latitude and enable students to major in more fields and experience less difficulty in course scheduling. It would also aid the student in making a wise selection and recognizing his major field of interest since he would have had a beginning course in additional areas.

While St. Mary of the Plains College is lacking in many facilities it would seem that there are certain basic courses which are greatly

needed and which could be satisfactorily taught. Such potential courses include theory courses which actually would need little laboratory equipment beyond that which is now present at the College or could be readily obtained.

The Home Landscaping course is a valuable course but does not, in the authors opinion, merit the same value as certain other courses which might be offered. Suggestions are made regarding such offerings elsewhere in this report.

The courses in Animal Husbandry and Agronomy, as they are presently organized, include material far in excess of that which can be effectively taught in a three-hour course. As a general survey course the present content and organization may be more or less satisfactory but there is a definite need to incorporate a more practical approach and organization than is possible in the limited present offering.

Most of the students who would be interested in agriculture courses already have a general idea of the field of agriculture since they have lived and farmed in the Southwest Kansas area. These students are definitely in need of more practical, specific courses providing knowledge and skills which can be put into practice on their own or their fathers farms.

Types of Farming

St. Mary of the Plains College is located in southwest Kansas. The principal crops grown in the thirty-two southwest counties are wheat, grain sorghums, barley and corn. Pasture and livestock, beef cattle pre-eminently, are also very important in many areas of southwest Kansas.

Because of the large number of acres of small grains, the average farmer has a large amount of money invested in equipment.

Soils of the Area

In general the soils of southwest Kansas are deep, brown to dark brown or gray, sandy loam, silt loam or silty clay loam, easily cultivated, fertile and have been formed from the weathering of outwash plains material, limestone or wind deposited materials. Most of the soils are silt loams from outwash plains material.

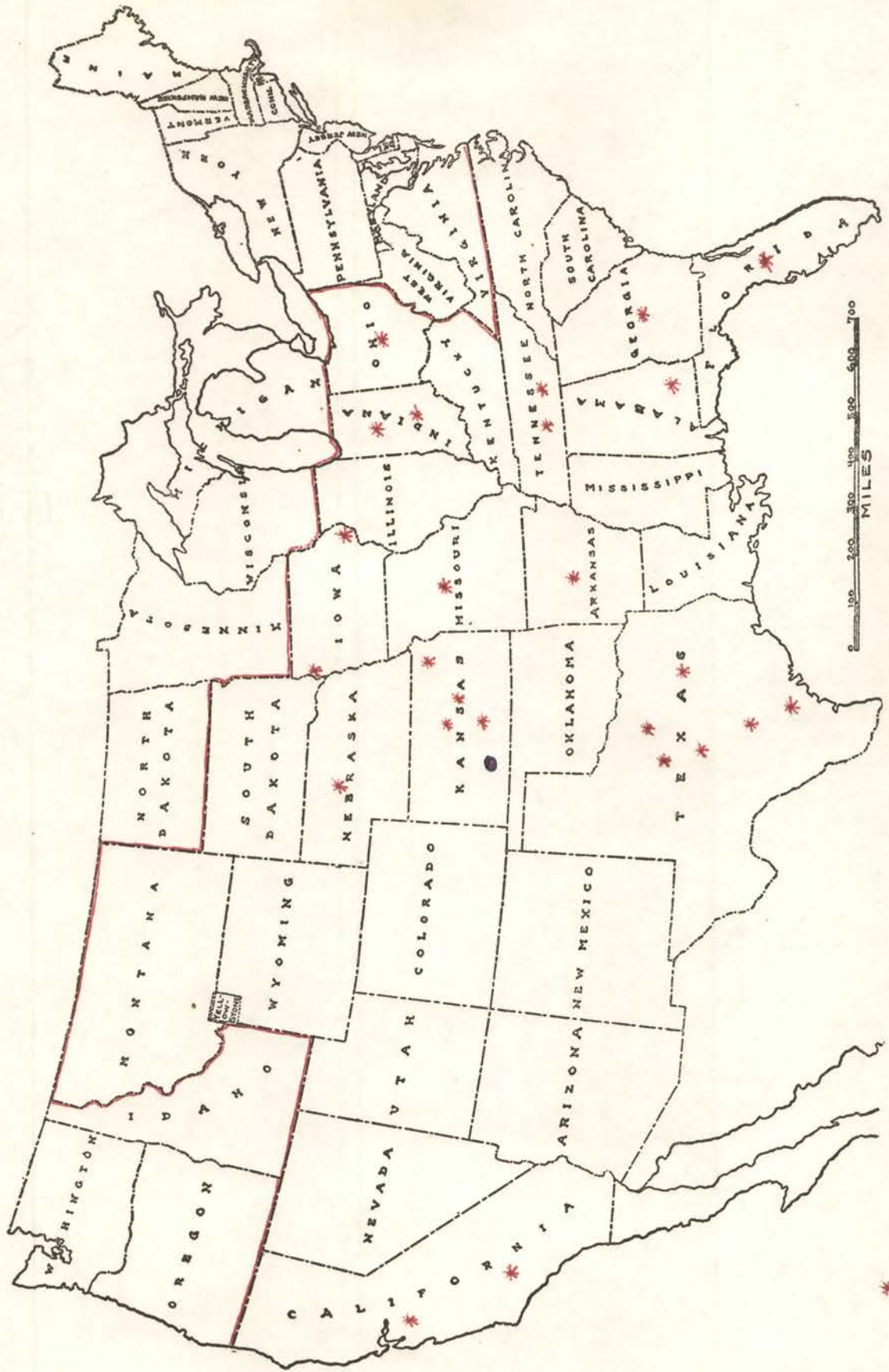
Method of Procedure

Catalogs were requested by the author from all non-tax-supported, four-year colleges in Oklahoma, Kansas, Texas, Nebraska, Colorado, Missouri, Illinois, Arkansas, Arizona, New Mexico, Montana, Wyoming, Ohio, Iowa, Indiana, Kentucky, California, South Dakota, Alabama, Nevada, Utah, Mississippi, Louisiana, South Carolina, North Carolina, Tennessee, Florida, and Georgia.

The total number of colleges contacted was three hundred twenty-six. Of this number, a careful examination of the catalogs and course offerings revealed that only twenty-four of the colleges had offerings in agriculture. These twenty-four colleges were located in only twelve of the twenty-eight states surveyed. These twelve states and the number of non-tax-supported colleges offering agriculture in each were determined to be; California (2), Nebraska (1), Kansas (1), Texas (6), Iowa (2), Missouri (1), Ohio (1), Indiana (2), Tennessee (2), Alabama (1), Georgia (1), and Florida (1).

In addition to surveying the course content of these colleges, thirty-three agricultural educators were contacted in Kansas, Oklahoma, Nebraska and Colorado in order to obtain an opinion regarding the need for courses in agriculture as part of the educational offering of non-tax-supported institutions of higher education.

As a further method of securing pertinent data, a survey was made of forty male students enrolled at St. Mary of the Plains College in order to determine their needs and desires for courses in agriculture. It was felt worthwhile to attempt to find out just what the students themselves felt they would like to have as training in technical agriculture.



100 200 300 400 500 600 700
MILES

* ●

Summary of Chapter 3

In summary the following points are re-emphasized; (1) St. Mary of the Plains College provides educational services for an excess of fifty college male students per year. (2) A high proportion of these students come from the surrounding territory of southwest Kansas and over seventy-five percent of these students are from rural areas. (3) A high proportion of these students also declare their intention to return to the farm and to rural areas after completing college. (4) While some students transfer to other institutions a considerable number declare that they will only attend St. Mary of the Plains College. (5) At the present time the training in agriculture offered at St. Mary of the Plains College is very limited and (6) it would seem desirable that plans should be made to revise and expand the offerings at St. Mary of the Plains College in order to meet the needs of students who are primarily interested in majoring in agriculture and related subjects and who attend only non-tax-supported institutions.

CHAPTER II

PRESENTATION OF DATA

Information needed to complete this study was obtained from three sources, (1) returns from questionnaires submitted to selected agricultural educators, (2) surveys of students attending St. Mary of the Plains College, and (3) a detailed study of catalogs received from twenty-four non-tax-supported colleges located in twelve states, which were determined to be offering agricultural courses. Data so secured has been tabulated and analyzed and the findings are presented as Chapter II of this study.

It was felt that securing data from these three sources should provide an ample basis for making concrete suggestions concerning the future of instruction in agriculture which might become a part of the learning experiences of students attending St. Mary of the Plains College.

The investigator felt that it would be desirable to obtain the opinion of certain recognized educators and administrators in agricultural schools and colleges regarding course offerings in agriculture which they felt would be desirable content for an agricultural curriculum which might be offered in non-tax-supported institutions of higher learning.

Table I presents the results obtained when questionnaires were submitted to a group of educators in agriculture. Returns were received from twenty individuals including; Deans of Agriculture at Oklahoma A and M College, Nebraska State College, Northwestern State College at Alva, Oklahoma, Fort Hays State College at Hays, Kansas, Panhandle A and M College at Goodwell, Oklahoma; and fifteen vocational agriculture instructors

of Southwest Kansas.

The twenty agricultural educators were asked to indicate the number of hours they felt were necessary in each area of agriculture in order that St. Mary of the Plains College could profitably offer a four-year curricula in agriculture. The table as shown on page 20 listed in the first column suggested areas of agriculture. The second column gives the number of individuals, out of the twenty, who suggested that any one particular area might be offered. In the third column is listed the highest number of hours in a particular area of agriculture that was suggested by any one individual, while in the fourth column is shown the lowest number of hours suggested for a particular area of agriculture. The fifth column lists the average for the responses received by twenty suggestions for each area of agriculture.

Listed under the column labeled "others" are courses which certain individual educators felt should be included, although only one individual suggested courses in each of the following areas; Soil Conservation, Beekeeping, Diseases of Livestock, Farm Chemistry, Agriculture Education, Principles of Feeding, and Pasture Management.

The highest total number of required hours suggested by any one individual to be taught in the area of agriculture was 89 while the lowest number suggested was 40. The average total hours of agriculture suggested was 66.9 hours.

TABLE I

RESPONSES OF TWENTY SELECTED EDUCATORS TO THE QUESTION AS TO NEEDED
OFFERINGS IN AGRICULTURE FOR RURAL STUDENTS ENROLLED
IN NON-TAX SUPPORTED INSTITUTIONS OF HIGHER
LEARNING

Areas Of Agriculture	Number Suggesting Area Be Offered	Number of Hours Required In Each Area		
		Highest	Lowest	Average
Agriculture Engineering	20	30	3	11.4
Agriculture Economics	20	12	3	5.3
Agriculture Journalism	18	6	0	2.9
Animal Husbandry	20	25	3	12.9
Horticulture	20	9	2	3.9
Field Crops	19	17	0	6.6
Poultry	20	6	2	3.7
Dairy	20	12	2	5.3
Soils	20	10	3	6.5
<u>Others</u>				
Soil Conservation	1	3	0	0.15
Beekeeping	1	2	0	0.10
Diseases of Livestock	1	5	0	0.25
Farm Chemistry	1	3	0	0.15
Agriculture Education	1	20	0	1.0
Principles of Feeding	1	3	0	0.15
Pasture Management	1	6	0	0.30
 SUGGESTED TOTAL NUMBER OF HOURS REQUIRED IN THE AREA OF AGRICULTURE		 89	 40	 66.9

All of the twenty agriculture educators suggested that courses be taught in the areas of Agricultural Engineering, Agricultural Economics, Animal Husbandry, Horticulture, Poultry, Dairy, and Soils, while nineteen suggested that Field Crops be included and eighteen were of the opinion that Agriculture Journalism would profitably be an offering.

The fact that in the opinion of the twenty educators at least forty hours should be offered would raise the question as to whether a small non-tax-supported institution should employ more than one staff member to teach agriculture. It would seem possible that where sixty hours or less were offered that two instructors might handle the situation quite well, especially if certain upper division courses were taught in alternate years.

Results of Surveys Made at St. Mary of the Plains College

During the school year of 1953-54, the average enrollment of male students totaled about 55. Of these 55 students, results of a survey disclosed that 16.3 percent preferred to secure a degree in agriculture if possible. No check was made this particular year to determine the number of students who desired to elect one or more agricultural courses during their time in school, but it would be the author's opinion that students desiring such work would have totaled well over one-half of the total male enrollment.

During the school year of 1954-55, out of a total of forty male students contacted, twenty-four definitely indicated they wished to elect some agricultural courses while they attended St. Mary of the Plains College. Table II is presented to show the responses of students to inquiry

regarding a desire for agricultural course work. These twenty-four students were considered to constitute a representative sample of the total male enrollment totaling approximately 78. The results therefore, were interpreted to mean that about sixty percent of the male student body was interested in taking agricultural courses. About five percent of the forty students were undecided, while fifteen percent stated they would prefer to major in agriculture if possible. Only fourteen or thirty-five percent of the students indicated they were not interested in enrolling in any courses of an agricultural nature.

TABLE II

DATA SECURED FROM A SURVEY OF FORTY MALE STUDENTS ATTENDING
ST. MARY OF THE PLAINS COLLEGE RELATIVE TO
NEED AND DESIRE FOR AGRICULTURAL COURSES

Indication Given	Students Indicating	
	Number	Percent
Not Interested in Taking Agricultural Courses.	14	35.0
Desire to Major in Agriculture.	6	15.0
Interested in Electing Courses in Agriculture.	24	60.0
Undecided	2	5.0

Further conversation with several of these students revealed the fact that the majority of those who had indicated a desire for electing agricultural courses felt that they would prefer two or three such courses and that they felt that these courses would be of benefit to them even though they did not return to the profession of farming.

Evidently these students recognized the fact that the economy of south-west Kansas is largely built upon the basis of agriculture and livestock farming.

Table III summarizes the nature and extent of crop production course offerings in twenty-two of the twenty-four colleges. Ninety-one percent of the colleges are found to be offering some course work in crop production as part of their agriculture program with five of these schools offering two or more courses in this area.

It was interesting to note that 95 percent of the schools offering crop production included "production" in a description of the course work; twelve included "identification"; nine, "methods of improvement"; eight, "botanical classification"; while seven included "meadow and pasture management"; and seven, "harvesting."

Twenty-eight percent or six of the twenty-two colleges included "distribution"; five, "importance of good seed"; four, "adaptation"; four, "insects and disease"; three, "soil and plant relations"; three, "weeds"; three, "farm uses"; and two, "grading", while in the case of three other schools each included one of the following, "judging", "marketing", and "economic importance."

A study of course content, indicates that Texas Lutheran College includes a larger number of areas totaling nine, in their one course of crop production, than any other college, while Wilmington College includes the same number of areas but divides the material covered into two courses which would seem to provide for much better coverage. A description of the course offerings at St. Ambrose College indicates only one area, "identification". Likewise the description of courses at Tarkio College

would imply a limited offering since only one area is listed, that however, being "production and management" which, although not so implied in the catalog description, may cover many areas and be complete enough to be a satisfactory course.

Data presented in Table IV reveal that twenty-one or 67.5 percent of the twenty-four reporting colleges offer course work in animal husbandry as part of their agriculture program, with twelve of these colleges offering two or more separate courses in this area.

Fifty-seven percent, or twelve of the twenty-one colleges offering a course in animal husbandry include "marketing", while eleven include "breeding"; eleven, "judging and showing"; and eleven, "breeds". Ten of the twenty-one colleges include "types"; nine, "feeding"; nine, "classes"; eight, "care and management"; and seven, "livestock importance", while only 23.8 percent or five include "methods of improvement"; five, "grades"; four, "selection"; four, "meats"; four, "health", and four, "production phases" in their animal husbandry courses.

Another point of interest was that Horningside College offers six courses in animal husbandry but includes only the three areas of "marketing", "classes", and "grades", with most of the courses dealing with marketing. Barham College and Pacific Union College offer only one course which includes the single area of, "care and management".

TABLE IV

COURSE OFFERINGS IN ANIMAL HUSBANDRY OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Animal Husbandry indicated as included	Abilene Christian College	Bethel College	Friends University	Howard Payne College	Jarvis Christian College	John Brown University	McPherson College	St. Benedict's College	Tarleton College	Texas Lutheran College	Rerry College
Marketing.	X	X		X	X	X			X	X	X
Breeding	X	X		X	X	X			X	X	X
Judging & Showing.	X	X	X	X		X	X			X	X
Breeds	X	X		X		X				X	X
Types.		X		X		X		X	X		
Feeding.	X	X		X	X	X				X	
Classes.		X						X	X	X	
Care & Management.			X		X	X					
Livest. Importance			X	X		X	X	X		X	
Methods of Improv.				X					X		X
Grades		X				X					
Selecting.	X									X	
Production Phases.			X				X				
Meats.		X			X						
Health				X						X	
Total Number of Courses Offered in Animal Husbandry.	2	1	2	2	3	2	2	1	2	1	3

TABLE IV (CONT'D)

Area of Animal Husbandry indicated as included	Madison College	Florida Southern College	Union College	Univ. of Corpus Christi	Cushman College	Earlham College	Pacific Union College	Oakwood College	Morningside College	Wilmington College	TOTAL
Marketing	X	X	X	X					X		12
Breeding	X		X	X							11
Judging & Showing	X				X					X	11
Breeds		X	X	X	X			X			11
Types			X	X	X			X		X	10
Feeding			X	X				X			9
Courses	X		X					X	X	X	9
Care & Management	X	X			X	X	X				8
Livest. Importance	X										7
Methods of Improv.	X								X		5
Grades			X						X	X	5
Selecting	X	X									4
Production Phases			X		X						4
Meats			X							X	4
Health		X						X			4
Number of Courses Offered in Animal Husbandry	2	2	1	1	1	1	1	3	6	1	
Number of Colleges Offering Course Work in the Area of Animal Husbandry											21

Table V indicates that dairy is a part of the agriculture program in seventeen of the twenty-four reporting colleges with eight of these colleges offering two or more courses in that area.

In 82 percent, or fourteen of the seventeen colleges offering work in dairying, "herd management" is mentioned in the dairy course description. Eleven of the colleges include "selection"; ten, "milk handling"; and ten, "milk production", while eight include "principles of manufacturing dairy products"; seven, "milk composition"; seven, "breeds", and seven, "breeding" in their dairy course description. Six of the seventeen colleges include "feeding"; six, "milk analysis"; four, "improvement and development"; three, "judging"; and three, "survey of the field", while only two included "plant sanitation and management"; two, "diseases"; and two, "secretion" in the description of their dairy course.

Table V also shows that Pacific Union College offers the largest number of courses in dairy, with three. Seven other colleges offer two courses each and all colleges implied they include a relatively large number of areas in dairy.

It is interesting to note that the geographical location is widely distributed and that while dairying is of considerable economic importance in some areas, surrounding some of the schools, it is not of particular importance in areas surrounding all of them. Evidently consideration was not given in all the schools to the needs of rural students who might be in attendance.

TABLE V
COURSE OFFERINGS IN DAIRY OF CERTAIN SELECTED
NON-TAX-SUPPORTING COLLEGES

Areas of Dairy indicated as included	Abilene Christian College	Bethel College	Friends University	Howard Payne College	Jarvis Christian College	John Brown University	Lutheran College	Tarkio College	Texas Lutheran College
Herd Management.	X	X	X		X	X	X	X	
Selection.	X	X	X		X		X	X	
Milk Production.	X	X	X	X	X	X			X
Milk Handling.	X	X	X	X	X				X
Man. of Manufact.									
Dairy Products		X			X	X	X		
Milk Composition	X	X	X	X			X		X
Breeds	X	X						X	
Breeding			X		X	X	X	X	
Feeding.			X			X	X	X	
Milk Analysis.	X						X		
Improv. & Develop.				X		X	X		X
Judging.								X	
Survey of Field.	X								
Plant Sanitation and Management									
Diseases									
Secretion.		X						X	
Total Number of Courses Offered in Dairy	2	1	1	1	2	2	1	1	1

Table VI shows that seventeen of the twenty-four reporting colleges feel poultry important enough to offer the course as part of their agricultural program with five of these colleges offering two or more courses in this area.

About 92 percent or fifteen of these seventeen colleges include "principles of poultry production" in their poultry course description; ten, include "feeding"; nine, "breeds"; nine, "care and improvement"; eight, "culling"; eight, "housing", and eight, "brooding". Seven of the seventeen colleges include "varieties" in their poultry course, six, include "marketing"; six, "incubation"; and only two of the seventeen colleges include "judging".

The college offering the largest number of courses in poultry is Berry College, with four. While La Sierra College offers three courses in the area of poultry.

There was some indication of courses being given in poultry in colleges which were located near to areas where poultry production was of greater economic importance. There was also some indication that the more complete courses in poultry were offered in the schools nearest the large poultry producing areas.

TABLE VI

COURSE OFFERING IN POULTRY OF CERTAIN SELECTED
NON-TAX-SUPPORTED COLLEGES

Area of Poultry indicated as included	Abilene Christian College	Bethel College	Friends University	Howard Payne College	Jarvis Christian College	John Brown University	McPherson College	St. Benedicts College	Taric College	Texas Lutheran College	Union College	Uni. of Corpus Christi	La Sierra College	Pacific Union College	Oakwood College	Berry College	Madison College	TOTAL
Prin. of Poul. Prod.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	15
Feeding.	X	X	X				X	X	X	X	X				X	X		10
Breeds	X	X	X		X	X	X	X	X	X	X							9
Culling.	X	X	X	X	X	X		X		X	X					X		8
Housing.	X		X		X	X	X	X	X	X	X							8
Brooding			X		X	X	X	X	X	X	X	X			X			8
Varieties.	X	X	X			X	X	X	X	X	X							7
Marketing.	X		X	X		X		X	X	X								6
Incubation			X		X	X	X	X	X	X		X						6
Care & Improv.	X	X	X	X	X	X	X	X	X	X				X	X			9
Judging	X							X										2
Total Number of Courses in Poultry	1	1	1	1	2	1	1	1	1	1	1	3	2	2	4	1		
Number of Colleges Offering Course Work in the Area of Poultry. . .																		17

Table VII reveals that 62 percent or fifteen of the twenty-four reporting colleges offer horticulture as part of their agriculture program with 60 percent or nine of the fifteen colleges offering two or more courses in the subject.

Fourteen of the fifteen colleges include "large and small fruits" in their horticulture course, fourteen include "production"; seven, "care and management of orchards"; seven, "insect and disease prevention and control", while six include "marketing"; six, "vegetables"; five, "ornamentals"; five, "handling"; and five, "harvesting". Four of the fifteen colleges include "landscaping and lawn care"; two, include "utilization"; and two, "processing". "Greenhouse management, soil and climate requirements, management, advanced study and varieties", were areas of horticulture, each of which were listed by only one college in their description of horticultural courses.

Table VII also shows that Florida Southern College offers eighteen courses in horticulture which are principally courses dealing with citrus fruit production and processing. Pacific Union College offers five, Madison College four, and John Brown University three. All 15 of the colleges indicate somewhat complete coverage of subject matter in the horticultural field.

It is quite evident that colleges located in or near the principal areas of fruit and vegetable production tended to be the colleges which gave the greater amount of course work to horticulture.

Table VIII summarizes the nature and extent of agricultural engineering course offerings in twelve of the twenty-four colleges. Fifty percent of the colleges were found to be offering some course work in agricultural engineering as part of their agricultural program, with six of those colleges offering two or more courses in this area.

As will be noted, in Table VII, 83 percent or ten of the twelve colleges include "general farm engineering problems and shopwork" in their course description of agricultural engineering offerings. Seven of the twelve colleges include "maintenance and general repair"; seven, "operation"; and five, "mechanics"; while only four include "power machinery"; three, "design and construction of farm building and machinery"; two, "selection"; one, "farmstead utilities and equipment"; one, "drawing, lettering and blueprint reading", and one, "agricultural arithmetic" in their agricultural engineering course.

It would seem that McPherson College, with four courses in agriculture engineering, feels that the subject is more important than most colleges, followed by Jarris Christian College and Union College with three courses each in the area of agriculture engineering.

Again there is indication that the proximity of the institution to farming areas where a large investment in machinery per farm is found, has the general effect of increasing the extent of course offerings in agricultural engineering.

TABLE VIII

COURSE OFFERING IN AGRICULTURE ENGINEERING OF
CERTAIN NON-TAX-SUPPORTED COLLEGES

Area of Agriculture Engineering indicated as included	Howard Payne College	Jarvis Christian College	John Brown University	McPherson College	Tarbio College	Texas Lutheran College	Union College	Pacific Union College	Madison College	La Sierra College	Oakwood College	Berry College	TOTAL
Gen. Vera Engr.													
Prob. & Shopwork.	x	x	x	x	x	x	x	x	x		x		10
Maintenance & General Repair.		x		x	x		x	x	x			x	7
Operation		x		x	x		x	x		x	x		7
Mechanics		x		x	x					x	x		5
Power Machinery			x	x	x		x						4
Design & Const. of Bldg. & Mach.			x			x	x						3
Selection								x		x			2
Farstead Utilities & Equipment								x					1
Drawing, Lettering, & Blueprints.							x						1
Agri. Math.										x			1
Total Number of Courses Offered in Agriculture Engineering	1	3	1	4	2	1	3	2	1	1	2	1	

Number of Colleges Offering Course Work in the Area of Agriculture
Engineering 12

Table IX indicates that soil conservation is offered as part of the agricultural program by 50 percent or twelve of the twenty-four reporting colleges with three of these colleges offering two or more courses in this area.

Seventy-five percent, or nine of the twelve colleges include "soil and water management" in their soil conservation course, six include "fertility maintenance"; four, "rotation"; four, "terracing"; three, "cover crops"; two, "contouring"; two, "strip cropping"; two, "irrigation"; and two, "study of forestry", while only one includes "state and local organization"; one, "stubble mulching"; one, "range conservation"; one, "land use"; and one, "testing".

Pacific Union College would appear to provide more complete coverages of the subject of soil conservation since it offers the most courses, three, and also the largest number of areas, with nine listed. Berry College and St. Ambrose College each offer two courses. Three other colleges include only one area in describing their courses, one of those areas so described as "rotation", which would seem to indicate a rather limited treatment of the subject of soil conservation.

As shown in Table X, one-half of the twenty-four reporting colleges offer farm management as part of their instructional program in agriculture with three of these colleges offering two or more courses in this area.

Over ninety percent, or eleven of the twelve colleges include "organizing the farm business" in their farm management course, five include "economics in farm business"; four, "selection of farm"; four, "marketing"; four, "farm accounts and records"; and two, "capital management", while only one college includes the area of "income tax computation"; "credit agencies"; and "tenure and leases".

As Table X indicates, the course description given by Abilene Christian College includes a greater coverage of areas involved in farm management, with two courses offered and seven areas included.

The course in farm management appears to be one which is offered by colleges in all parts of the United States indicating the recognition of a need for consideration for the business of farm management wherever farming is engaged in as an occupation.

TABLE X
 COURSE OFFERINGS IN FARM MANAGEMENT OF CERTAIN
 NON-TAX-SUPPORTED COLLEGES

Areas of Farm Management indicated as included	Abilene Christian College	Jarvis Christian College	John Brown University	Tartico College	Wilmington College	St. Ambrose College	Pacific Union College	La Sierra College	Goshen College	Earlham College	Berry College	Madison College	TOTAL
Organ. Farm Bus.	x	x	x	x	x	x	x	x	x	x	x	x	11
Econ. in Farm Bus.				x	x				x	x	x		5
Selection of Farm.			x					x		x		x	4
Marketing.	x						x	x			x		4
Farm Acct. & Records	x	x			x		x						4
Capital Management	x				x								2
Inc. Tax Computation	x												1
Credit Agencies.	x												1
Tenure & Leases.	x												1
Total Number of Courses Offered in Farm Management . .	2	1	1	1	2	1	1	1	1	1	1	2	1
Number of Colleges Offering Course Work in the Area of Farm Management.													12

In summarizing the nature and extent of animal feeding and production course offerings, Table XI shows that twelve of the twenty-four reporting colleges offer the course as part of their agricultural program with all of the twelve colleges offering only a single course in the subject.

Ten of the twelve colleges include "feed composition"; ten include "feed value"; five, "process of nutrition"; four, "feeding different livestock", while two include "computing rations"; two, "utilization and improvement of feeds"; two, "origin of feeds"; and two, "nutritive requirements"; with only one college including "production and harvesting of feeds" in their course description of animal feeding and production. It was also interesting to note that one college included "production and harvesting of feeds" in their course description of animal feeding and production. Most of the colleges included the areas which would logically be expected in a course entitled, animal feeding. The following colleges also offered a course in animal husbandry, Table IV, and included either "feeding" or "production" in that course; Bethel College, Friends University, Jarvis Christian College, John Brown University and McPherson College.

TABLE XI

COURSE OFFERINGS IN ANIMAL FEEDING AND PRODUCTION
OF CERTAIN NON-TAX-SUPPORTED COLLEGES

Area of Animal Feeding and Production indicated as included	Bethel College	Friends University	Jarvis Christian College	John Brown University	McPherson College	Tarkio College	Pacific Union College	Goshen College	Wilmington College	St. Ambrose College	Berry College	Madison College	TOTAL
Feed Composition.	x	x	x	x	x		x	x	x	x		x	10
Feed Value.	x	x	x	x	x		x	x	x	x		x	10
Process of Nutrition.	x				x	x		x				x	5
Feeding Different Livst				x	x			x		x			4
Computing Rations								x	x	x			3
Utiliz. & Impr. of Feeds.				x								x	2
Origin of Feeds			x						x				2
Nutritive Requirements.	x										x		2
Prod. & Harvst. of Feeds.				x									1
Total Number of Courses Offered in Animal Feeding and Production	1	1	1	1	1	1	1	1	1	1	1	1	
Number of Colleges Offering Course Work in the Area of Animal Feeding and Production													12

Table XII shows that nearly 46 percent, or eleven of the twenty-four reporting colleges offer soils as part of their program in agriculture while only one of these colleges offer two or more courses in the subject.

Eight of the eleven colleges include "composition" in their soils courses, seven include "management"; six, "classification"; four, "origin"; four, "formation"; while only one included "water relationship".

As will be noted by examination of Table IX, a total of nine of the colleges offering soils also offer a course in soil conservation. Earlham College offers one course in soils but none in soil conservation, the same is true of Florida Southern College except that they offer two courses in soils, one of which includes "management", thus it can be assumed that the soil courses offered include much of the material which might be taught in a separate course of soil conservation.

Comparison of colleges listed in Tables IX and XII will reveal the fact that 46 of the twenty-four colleges offer work in either soils or soil conservation. The nature and extent of course offering would indicate the universality of problems in soil management is largely recognized throughout the United States.

TABLE XII

COURSE OFFERINGS IN SOILS OF CERTAIN
NON-TAX-SUPPORTED COLLEGES

Areas of Soils indicated as included	Friends University	Jarvis Christian College	Goshen College	La Sierra College	St. Ambrose College	Earlham College	Pacific Union College	Oakwood College	Berry College	Madison College	Florida Southern College	TOTAL
Composition.	x		x	x	x			x	x	x	x	8
Classification	x		x	x	x		x				x	6
Management	x	x		x	x	x	x				x	7
Origin	x		x	x					x			4
Formation.	x				x	x			x			4
Water Relations.					x							1
Total Number of Courses Offered in Soils	1	1	1	1	1	1	1	1	1	1	2	
Number of Colleges Offering Course Work in the Area of Soils.												11

Table XIII shows that 33 percent or eight of the twenty-four reporting colleges felt that agricultural economics should be included as part of their agricultural program with one course being offered in this area by each of the eight colleges.

Sixty-two percent, or five of the eight colleges include "economic problems in agriculture" in their agricultural economics course, four include "market prices"; three, "agriculture in national economy"; two, "cooperative marketing"; two, "principles and problems of farm management", while only one lists "commodity marketing", another single school listing, "marketing functions".

A study of the course content indicates that McPherson College includes the largest number of areas, with four of the seven implied, while the colleges of Oakwood and Tarkio list only one area to be covered in their agricultural economics course.

A comparison of Table X with Table XIII reveals the fact that nine colleges have course offerings in farm management but do not list offerings in agricultural economics. An examination of course offerings would indicate that a certain amount of agricultural economics is included in farm management courses.

Tarkio, La Sierra, Pacific Union and Berry Colleges also offer a course in farm management in addition to an agricultural economics course.

Sixteen of the twenty-four colleges offer either courses in agricultural economics, or farm management or both, indicating that in at least two-thirds of the schools recognition is given to the importance of providing for study of the economics of agriculture and the importance of the business side of farming.

TABLE XIII

COURSE OFFERINGS IN AGRICULTURE ECONOMICS OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Agriculture Economics indicated as included	Howard Payne College	McPherson College	Tarkio College	Morningside College	La Sierra College	Pacific Union College	Oakwood College	Berry College	TOTAL
Econ. Problems in Agri.	x	x	x	x		x			5
Market Prices		x	x			x	x		4
Agri. in National Econ.	x				x		x		3
Cooperative Marketing		x				x			2
Farm Management			x				x		2
Commodity Marketing		x							1
Marketing Functions						x			1
 Total Number of Courses Offered in Agriculture Economics	 1	 1	 1	 1	 1	 1	 1	 1	
 Number of Colleges Offering Course Work in the Area of Agriculture Economics									 8

Information showing that eight of the twenty-four reporting colleges offer vegetable gardening as part of their agricultural program is given in Table XIV. As indicated, each of the eight colleges offer one course in this area.

One hundred percent, or each of the eight colleges include "production" in their vegetable gardening course description, three include "harvesting and storing"; three, "disease and insect control"; three, "varieties"; three, "marketing", while only one includes "planning"; one, "soils", and one "management".

After studying the vegetable garden course content of the eight colleges it would seem that each college was offering a rather complete and satisfactory course, since each included "production", in addition to one or more of other areas listed in Table XIV. All of the colleges which offer courses in vegetable gardening also offer one or more course in horticulture. This statement can be verified by reference to Table VII. Table VII also indicates that two additional colleges definitely include a unit on vegetable production in one of their horticultural courses. When consideration is given geographic location of schools offering courses in vegetable gardening, it will be evident that most of these schools will be located in areas of general or diversified type of farming, indicating that some importance was attached to vegetable gardens as far as the home family food supply is concerned.

TABLE XV

COURSE OFFERINGS IN SURVEY OF AGRICULTURE OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Survey of Agriculture indicated as included	St. Ambrose College	Bartlesville College	Pacific Union College	Oakwood College	Southern Missionary College	TOTAL
Orientation	x		x	x		3
Systems of Farming.		x		x	x	3
Import. of Agriculture.		x	x			2
Total Number of Courses Offered in Survey of Agriculture	1	2	1	1	1	
Number of Colleges Offering Course Work in the Area of Survey of Agriculture Course.						5

Five of the twenty-four reporting colleges offer Survey of Agriculture as part of their agriculture program, and one offers two courses in the subject.

Three of the five colleges include Orientation, while three others include Systems of Farming and two include Importance of Agriculture in their Survey of Agriculture course.

TABLE XVI
 COURSE OFFERINGS IN SPECIAL PROBLEMS OF CERTAIN
 SELECTED NON-FAF-SUPPORTED COLLEGES

Areas of Special Problems indicated as included	Friends University	Madison College	Jarvis Christian College	Earlham College	Pacific Union College	TOTAL
Special Prob. for Advanced Students.	X	X	X	X	X	5
Total Number of Courses Offered in Special Problems	1	1	1	1	1	
Number of Colleges Offering Course Work in the Area of Special Problems.						5

Five of the twenty-four reporting colleges offer Special Problems as part of their agriculture program and each of the five offer only one course in Special Problems which are special or individual problems to be arranged for certain, usually advanced, students.

Table XVII indicates that only three of the twenty-four reporting colleges offer beef production, as a course separate from general livestock production courses, with one of the three colleges offering two courses of this type.

All three of the colleges include "purebred and range herd management" in a description of the beef production course, two include "breeding"; two, "feeding"; two, "diseases and parasites"; one, "marketing", and one, "feeding for show".

Table XVII shows that Abilene Christian College is the only one of the three including all of the areas listed, while Tarkio College includes only one of the areas, this being "purebred and range herd management".

Each of the three colleges also offer a course in animal husbandry and include some of the same areas of instruction in that course. These colleges are located in the state of; Texas, Missouri, and Georgia. The enterprise of beef production is of course recognized as being quite important in the state of Texas and Missouri, while Georgia and some other nearby states in the deep south have in very recent years experienced a very phenomenal growth in beef cattle numbers.

TABLE XVII

COURSE OFFERINGS IN BEEF PRODUCTION OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Beef Production indicated as included	Abilene Christian College	Tarkio College	Berry College	TOTAL
Purebred & Range Herd				
Management.	X	X	X	3
Breeding.	X		X	2
Feeding	X		X	2
Disease & Parasites	X		X	2
Marketing	X			1
Feeding For Show.	X			1
Total Number of Courses Offered in Beef Production.	1	1	2	

Number of Colleges Offering Course Work in the Area of Beef Production...3

After examination, it would seem that sheep production, as such, is not generally considered too important since Table XVIII shows only three of the twenty-four reporting colleges offer sheep production as a separate and distinct course in livestock production.

All three colleges list "feeding", and "breeding" in the course description, while two include "management"; one, "growing"; one, "shearing", and one, "marketing".

These colleges are also included in Table IV as offering courses in animal husbandry. It is evident that these three colleges feel that sheep production is of enough importance in their particular areas to warrant offering it as a separate course.

TABLE XVIII

COURSE OFFERINGS IN SHEEP PRODUCTION OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Sheep Production indicated as included	Abilene Christian College	Tarkio College	Berry College	TOTAL
Feeding.	X	X	X	3
Breeding	X	X	X	3
Management		X	X	2
Growing.	X			1
Shearing	X			1
Marketing.	X			1
Total Number of Courses Offered in Sheep Production.	1	1	1	
Number of Colleges Offering Course Work in the Area of Sheep Production.				3

Table XIX shows that three of the twenty-four reporting colleges offer animal nutrition as part of their agricultural program with each of the three offering one course in the subject.

One hundred percent, or all three of the colleges include "principles of nutrition" in their animal nutrition course, two include "feed preparation"; two, "feeding standards"; while one of the colleges includes the following areas; "reproduction, fattening, usefulness, and utilization".

La Sierra College Catalog describes the course simply as a course in "principles of nutrition", while course descriptions given by John Brown University and Earlham College imply the inclusion of all three areas. Since each offers only one course it would appear that John Brown University might offer the more complete coverage of subject matter in the area of nutrition. In addition to this course in nutrition, Earlham College and John Brown University each offer courses in either animal husbandry or animal feeding and production. Once again, giving more importance to courses in the animal husbandry field.

Twenty-three of the twenty-four colleges included in the study offer one or more courses in either animal husbandry, animal nutrition, or animal feeding and production. A total of 55 separate courses in these areas are offered by the twenty-three schools.

TABLE XIX

COURSE OFFERINGS IN ANIMAL NUTRITION OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Animal Nutrition indicated as included	John Brown University	Earlham College	La Sierra College	TOTAL
Prin. of Nutrition.	x	x	x	3
Feed Preparation.	x	x		2
Feeding Standards	x	x		2
Growth.	x			1
Reproduction.	x			1
Fattening	x			1
Usefulness.	x			1
Utilization	x			1
 Total Number of Courses Offered in Animal Nutrition	 1	 1	 1	
 Number of Colleges Offering Course Work in the Area of Animal Nutrition.				 3

Data as presented in Table XX reveals that only three of the twenty-four reporting colleges offer swine production as a separate unit in the instructional program in agriculture. Each college offers a single course in this area.

With regard to areas of subject matter provided for in the swine production course all of the three colleges include "breeding", and "feeding". Two include "management", while one lists "diseases" and another one "fitting" and "showing".

Examination of Table XX would indicate that each of the three colleges offer swine production courses which would be relatively complete. All three of these colleges will also be found listed in Table IV as conducting one or more courses in animal husbandry.

TABLE XX

COURSE OFFERINGS IN SWINE PRODUCTION OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Swine Production indicated as included	Abilene Christian College	Tarkio College	Berry College	TOTAL
Breeding	x	x	x	3
Feeding	x	x	x	3
Management		x	x	2
Disease			x	1
Fitting	x			1
Marketing	x			1
Number of Courses Offered in Swine Production.	1	1	1	
Number of Colleges Offering Course Work in the Area of Swine Production.				3

Three of the colleges offer single course of instruction in rural sociology as part of their agricultural program.

Each of the three colleges include "rural institutions", and "standards of living of rural people" in their rural sociology course description, while two include "rural and urban interrelations"; two, "rural problems"; two, "rural advantages", and one, "advanced problems".

Data presented in Table XXI reveals that each of the three colleges offer a course in rural sociology which are of about equal nature and extent in a more or less complete coverage of the areas listed.

TABLE XXI

COURSE OFFERINGS IN RURAL SOCIOLOGY OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Rural Sociology indicated as included	Abilene Christian College	St. Ambrose College	McPherson College	TOTAL
Rural Institutions.	x	x	x	3
Standards of Living of Rural People.	x	x	x	3
Rural & Urban Interrelations.	x	x		2
Rural Problems.	x	x		2
Rural Advantages.		x	x	2
Advanced Study.			x	1
Number of Courses Offered in Rural Sociology	1	1	1	
Number of Colleges Offering Course Work in the Area of Rural Sociology				3

Table XXII summarizes the nature and extent of veterinary science course offerings in three of the twenty-four reporting colleges. Only 12.5 percent of the colleges are found to be offering some course work in veterinary science as part of their agricultural program, with each college offering one course in this area.

Each of the three colleges include "livestock diseases", and "prevention" in their veterinary science course, while two include "internal and external parasites"; two, "treatment"; one, "control", and one, "sanitation".

It seems to the writer that the three colleges offering veterinary science probably cover the material equally well. The three colleges listed in Table XXII are also listed in other tables dealing with the production of farm animals.

These courses are given in colleges located in the midwest and southwest and possibly reflect the recognition of the importance of livestock production in these particular areas.

TABLE XXIII

COURSE OFFERINGS IN VETERINARY SCIENCE OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Veterinary Science indicated as included	Abilene Christian College	Jarvis Christian College	Tarkio College	TOTAL
Livestock Diseases.	X	X	X	3
Internal & External Parasites	X	X		2
Prevention	X	X	X	3
Treatment	X	X		2
Sanitation.	X			1
Control.		X		1
Number of Courses Offered in Veterinary Science.	1	1	1	
Number of Colleges Offering Course Work in the Area of Veterinary Science.				3

Table IXIII shows that only about 8 percent, or two of the twenty-four reporting colleges offer range management as part of their agricultural program with one college offering three courses in the subject.

Both colleges include "range utilization, range improvement, and plant and field classification" in their range management course description, while one college includes "methods of reseeding"; one, "mapping and surveying"; one, "individual problems and research"; one, "composition", and one, "production".

Abilene Christian College offers three courses in range management which would imply a most complete coverage of material, however, the course description given in the catalog published for Howard Payne College would also seem to imply a rather complete coverage.

Although the listing of only two colleges as writing separate courses in range management might seem to indicate a lack of recognition of importance in this area, it should be pointed out that reference to Table III shows that 7 other institutions include pasture management in courses in crop production.

It can also be readily recognized the course offerings in pasture management to a large extent are found in areas in which a large amount of range and pasture land occurs.

TABLE XXIII

COURSE OFFERINGS IN RANGE MANAGEMENT OF CERTAIN
SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Range Management indicated as included	Abilene Christian College	Howard Payne College	TOTAL
Range Utilization.	x	x	2
Range Improvement.	x	x	2
Plant & Field Classification	x	x	2
Methods of Reseeding	x		1
Mapping & Surveying.	x		1
Individual Problems & Research	x		1
Composition.		x	1
Production		x	1
 Total Number of Courses Offered in Range Management.	 3	 1	
 Number of Colleges Offering Course Work in the Area of Range Management			 2

TABLE XLIV
 COURSE OFFERINGS IN AGRICULTURE EDUCATION OF CERTAIN
 SELECTED NON-TAX-SUPPORTED COLLEGES

Areas of Agriculture Education indicated as included	Oakwood College	Tarkio College	TOTAL
Teaching Methods	x	x	2
Ele. Teaching Plan		x	1
Materials		x	1
Total Number of Courses Offered in Agriculture Education	1	1	
Number of Colleges Offering Course Work in the Area of Agriculture Education. 2			

Only two of the twenty-four reporting colleges offer Agriculture Education as part of their agriculture program and each institution offers only one course.

Both of the colleges include Methods of Teaching as a unit of instruction while one lists Teaching Materials, and one also reports of constructing a Teaching Plan in the Agriculture Education course.

TABLE XV

AREAS OF AGRICULTURE IN WHICH INSTRUCTION IS PROVIDED BY AGRICULTURE
DEPARTMENTS OF THE TWENTY-FOUR COLLEGES REPORTING

<u>Area of Agriculture</u>	<u>Number of Colleges Offering</u>
Crop Production.	22
Animal Husbandry	21
Dairy.	17
Poultry.	17
Horticulture	15
Agriculture Engineering.	13
Soil Conservation.	12
Farm Management.	12
Animal Feeding & Production.	12
Soils	11
Agriculture Economics.	8
Vegetable Gardening.	8
Survey of Agriculture.	5
Special Problems	5
Beef Production.	3
Sheep Production	3
Animal Nutrition	3
Swine Production	3
Rural Sociology.	3
Veterinary Science	3
Range Management	2
Agriculture Education.	2

Table XXV shows that the areas of agriculture offered by 50 percent or more of the twenty-four colleges include, crop production, animal husbandry, dairy, poultry, horticulture, agriculture engineering, soil conservation, farm management, and animal feeding and production. Soils followed the above very closely, being offered by 45.8 percent of the twenty-four colleges. This information would seem to indicate that these areas are the most important and should be considered seriously when developing an agricultural program for institutions of higher learning.

The importance of the remaining areas of agriculture, which are offered by 8 percent to 33 percent of the twenty-four colleges, would depend somewhat on the geographical location of the college, its purpose in offering agriculture, and the offerings of certain other departments within the college.

Eleven of the twenty-four colleges offering course work in agriculture grant baccalaureate degrees in agriculture, with three granting an associate of arts degree. Two of the institutions offer a pre-professional course in agriculture with provision made for transfer to another college. Four of the additional colleges offer agriculture as a major for those receiving bachelor of arts degrees and two other colleges allow agriculture as a minor area for recipients of the bachelor of arts degree. In three of the colleges agriculture can only be taken as an unclassified elective.

The number of separate courses in agriculture given by the twenty-four colleges was found to average 13.5, while the average number of semester credit hours offered was determined to be 40.

The college offering the largest number of agricultural courses was found to be Florida Southern College, Lakeland, Florida, which listed a total of twenty-six separate courses. This school also offers the largest number of hours of agriculture course work, totaling eighty-two. Southern Missionary College, Collegedale, Tennessee, was found to be offering the least number of courses, with only one, and also the lowest number of hours, the one course offered carrying four hours credit. Berry College, Mount Berry, Georgia, listed a staff of six agricultural instructors which was larger than staffs listed by any other institution. Both Southern Missionary College, Collegedale, Tennessee, and the University of Corpus Christi, Corpus Christi, Texas did not list any staff members as agriculture instructors. At each of these institutions the agricultural courses are taught by teachers whose major teaching assignments were in the field of science.

TABLE XXVI

SUMMARY OF AGRICULTURAL COURSE OFFERINGS IN TWENTY-FOUR
SELECTED NON-TAX-SUPPORTED INSTITUTIONS OF
HIGHER LEARNING

<u>Agricultural Course Offerings</u>				
College	Number of Courses	Total Number Of Hours	Number of Instructors	Maximum Terminal Status
Florida Southern College Lakeland, Florida	26	82	5	B.S.
Berry College Mount Berry, Georgia	25	72	6	B.S.
Abilene Christian College Abilene, Texas	25	74	4	B.S.
Pacific Union College Angwin, California	25	71	1	2 yr. Major
Jarvis Christian College Texas	21	78	2	Associate of Arts
McPherson College McPherson, Kansas	20	50	2	B.S.
Tarkio College Missouri	19	53	1	Major
Madison College Madison College, Tennessee	19	58	1	B.S.
La Sierra College Arlington, California	18	50	2	B.S.
John Brown University Arkansas	15	45	3	B.S.
Oakwood College Huntsville, Alabama	14	69	1	B.S.
Wilmington College Wilmington, Ohio	12	27	1	B.S.
Earlham College Richmond, Indiana	11	28	3	B.S. or B.A.

TABLE XXVI (CONT'D)

College	Agricultural Course Offerings			
	Number of Courses	Total Number Of Hours	Number of Instructors	Maximum Terminal Status
St. Ambrose College Davenport, Iowa	11	30	1	2 yr. or Minor
Friends University Kansas	11	30	1	B.S. Major
Howard Payne College Brownwood, Texas	9	27	1	Minor
Union College Nebraska	7	17	1	B.S. part taken Uni. Neb. (4 yr.)
Goshen College Goshen, Indiana	7	21	2	Associate of Arts
Texas Lutheran College Texas	6	18	1	Courses only
Bethel College Kansas	6	28	1	Associate of Arts
Morningside College Sioux City, Iowa	6	27	1	Major
St. Benedicts College Kansas	4	10	1	Transfer K-State 2 yr.
University of Corpus Christi Texas	4	12	0	Courses only
Southern Missionary College Collegedale, Tennessee	1	4	0	Course only

Summary of Findings and Analysis

In a brief summary of material presented in Chapter II, it was found that (1) the twenty agricultural educators in Kansas, Oklahoma, and Nebraska, who responded to the submitted questionnaires indicated that animal husbandry and agricultural engineering are possibly the two most important areas of agriculture which should be included in an agricultural curriculum at St. Mary of the Plains College, while field crops and soils rank next as far as the number of hours of course work suggested for instructors. Following these subjects, in rank order of importance indicated were agricultural economics, dairy, horticulture, poultry, and agricultural journalism. The average total number of hours suggested for agricultural course instruction was 66.9. A summary of other data reveals, (2) that 68 percent of the male student enrollment at St. Mary of the Plains College definitely indicated a desire for agricultural courses while attending this college, and (3) the twenty-four reporting colleges located in twelve states indicate, in catalog descriptions of agricultural offerings, that practically the same areas of agriculture as are listed in the summary above, are recognized as the most valuable in meeting the needs of students interested in agriculture, who are attending non-tax-supported colleges. Data presented show that crop production, animal husbandry, dairy and poultry are the four subject matter areas most frequently offered. Next in importance are courses in horticulture, agricultural engineering, soils management, farm management and animal feeding and production. Two of the offerings which received less recognition in college catalogs, were found to be agricultural education and rural sociology.

Other courses offered by only a few colleges, which may or may not have been covered in other courses or areas are "special problems in agriculture" and "general survey of agriculture". In general it can be recognized that course offering in agriculture in non-tax-supported institutions tend to conform to the particular needs as expressed by the specific farm enterprises more prevalent in the area. For example, beef cattle production and range and pasture management tend to be taught by colleges geographically located in areas where livestock production and range cattle production predominate as a type of farming. Likewise this is true of commercial vegetable and fruit production such as the citrus growing areas. This is not entirely true however, which would tend to substantiate the assumption that many factors influence the choice of courses in agriculture to be offered in non-tax-supported institutions of higher learning. Some of these other factors which may be proposed as influences are (1) number of rural and farm students in attendance at the institution, (2) the importance placed upon the inclusion of certain other courses or areas of instruction in the curricula offerings, and (3) the particular educational attainment, interests, and self-confidence of the agriculture teachers in their own ability to teach subject matter in the various areas of agriculture.

CHAPTER III

Summary, Conclusions and Recommendations

This study was made from an analysis by (1) questionnaires received from twenty agricultural educators located in Kansas, Oklahoma and Nebraska in order to have the opinions and suggestions of many other qualified men in agriculture as to the nature and extent to which St. Mary of the Plains College should proceed in offering agricultural courses; (2) a survey of male students attending St. Mary of the Plains College in order to determine the interests and desires of those attending this college, and (3) a study of agricultural course offerings secured from the catalogs of twenty-four non-tax-supported colleges in twelve states. This survey was made to determine the kind and amount of course offerings usually included by such colleges offering agriculture as part of their curricula.

After an analysis was made of the data secured it was found that by far the majority of the agricultural educators suggested the following areas of agriculture be included in the curricula at St. Mary of the Plains College; agricultural engineering, animal husbandry, field crops, soils management, agricultural economics, dairy, horticulture, poultry and agricultural journalism. The average total number of hours suggested by these educators for agricultural course instruction amounted to 66.9 hours. Further analysis revealed that 60 percent of the male students, attending St. Mary of the Plains College, were interested in enrolling in agricultural courses, as electives or major if possible, while studying for degrees in related fields.

The information obtained after a study of twenty-four college catalogs, received from schools located in twelve states, indicated that course offerings were quite similar to the offerings suggested by the twenty agriculture educators who responded to the questionnaires. The areas of agriculture given in eleven, or more, of the twenty-four colleges include; crop production, animal husbandry, dairy, poultry, horticulture, agricultural engineering, soils management, farm management, and animal feeding and production. These areas were evidently recognized by the majority of the colleges as being the most beneficial courses in meeting the needs of students attending colleges in twelve of the forty-eight states.

In conclusion, considering data obtained from the several sources, it seems evident that there is a need and a place for agricultural offerings at St. Mary of the Plains College. Some of the factors influencing the conclusion that an expanded agricultural curriculum is advisable, are; (1) the region surrounding Dodge City, Kansas and St. Mary of the Plains College is definitely an agricultural area; (2) a majority of the male students attending the college expressed a desire for agriculture, (3) most of the other non-tax-supported colleges offering agricultural courses include what seems to be very desirable offerings to meet the needs in their areas, (4) agricultural educators were quite consistent in suggesting that certain areas of agricultural offerings were important as part of an agricultural program for St. Mary of the Plains College, (5) the entire economic welfare of southwest Kansas is dependent upon agriculture, (6) many students who intend to remain in the farming business would not attend other colleges more distant from their homes in order to attend school and enroll in agriculture therefore not attending

school at all.

Suggested Agricultural Program For
St. Mary of the Plains College

Because of lack of facilities it would be unwise for St. Mary of the Plains College to offer a degree in agriculture, but it is the authors opinion, after much study, that more courses should be offered.

After studying the catalogs of colleges offering agriculture and the suggestions made by agricultural educators in Kansas, Nebraska and Oklahoma, the main areas of agriculture which should be included in a college curriculum are the following; field crops, animal husbandry, dairy, poultry, horticulture, agricultural engineering, farm management, and soils management.

Suggested Curriculum For Agriculture
At St. Mary of the Plains College

Area	Number of Courses	Hours Per Course	Total Hours
Animal Husbandry	3	3-2-2	7
Soils Management	2	3-2	5
Field Crops	1	3	3
Agriculture Engineering	2	3-3	6
Farm Management	1	3	3
Dairy	1	3	3
Poultry	1	2	2
Homestead Improvement	1	2	2
Total.	12		31

Offerings Suggested to be Included in
the Various Areas of Agriculture

Area	Offerings Included
<u>Animal Husbandry</u>	
Three-hour credit course.	Breeds, Breeding, Types, Classes and Marketing.
Two-hour credit course.	Judging, Showing, and Feeding.
Two-hour credit course.	Care & Management, Livestock Diseases, Swine & Sheep Importance.
<u>Soil Management</u>	
Three-hour credit course.	Origin, Formation, Composition, Classification, Conservation.
Two-hour credit course.	Fertilization, Irrigation.
<u>Field Crops</u>	
Three-hour credit course.	Identification, Classification, Production, Harvesting, Insect & Disease Control, Pasture, Range Management.
<u>Agriculture Engineering</u>	
Three-hour credit course.	Shopwork, Design and Construction of Farm Buildings and Machinery.
Three-hour credit course.	General Farm Engineering Problems, Maintenance and General Repair.
<u>Farm Management</u>	
Three-hour credit course.	Farm Selection, Organizing Farm Business, Farm Records.
<u>Dairy</u>	
Three-hour credit course.	Herd Management and Improvement, Breeds, Selection, Milk Production, Feeding, Diseases.
<u>Poultry</u>	
Two-hour credit course.	Breeds & Varieties, Production, Care & Improvement, Marketing.
<u>Homestead Improvement</u>	
Two-hour credit course.	Construction for Beauty & Utility, Planting Plans, Lawn & Plant Adaptation, Planting & Care, Disease & Insect Control.

The essential factors to be studied in Agriculture Economics would be included in farm management.

Soil Conservation, as such, would not be listed, but it would be included in the course content of soil management. Also since irrigation is developing rapidly in the southwest it should also be included, necessitating two courses in soil management.

Beckkeeping would not be offered because the need for such a course is not great enough in southwest Kansas.

Diseases of Livestock would be included in the courses in animal husbandry as would Principles of Feeding. Also Pasture Management would be included in the field crops course, and Agriculture Education would not be offered since the college would not be preparing students for the teaching of agriculture.

The above suggested program of courses would be offered as electives for those students who wish to take several courses in agriculture while majoring in a related field, but do not wish to attend college at one of the Land Grant Colleges.

For those students who wish to attend a Land Grant College and receive a degree in agriculture, the author would suggest an addition to the above, a program similar to the one offered at St. Benedict's College, Atchison, Kansas. The program at St. Benedict's College consists of four courses, one taken each semester, which could be any of the twelve suggested previously, that a Land Grant College would agree to accept, and which are accepted without loss of credit when the student transfers to a Land Grant College and continues in the field of agriculture.

A SELECTED BIBLIOGRAPHY

Unpublished Material

Colby, T. W. A Training Program in Agriculture at Abilene Christian College for Boys Returning to the Farm. Honors Study, 1951, Oklahoma A. and M. College. 70 p.

Bulletins, Pamphlets, and Materials

- Abilene Christian College. College Bulletin. Abilene, Texas, 1955-56.
- Berry College. College Catalog. Mount Berry, Georgia. 1954-55.
- Bethel College. College Catalog. Newton, Kansas. 1954-55.
- Earlham College. College Catalog. Richmond, Indiana. 1955-56.
- Florida Southern College. College Catalog. Lakeland, Florida. 1954-55.
- Friends University. University Catalog. Wichita, Kansas. 1955-56.
- Goshen College. College Catalog. Goshen, Indiana. 1954-55.
- Harry Hanson, ed., The World Almanac and Book of Facts For 1955. New York: New York World-Telegram, 1955.
- Howard Payne College. College Bulletin. Brownwood, Texas. 1954-55.
- Jarvis Christian College. College Bulletin. Hawkins, Texas. 1955-56.
- John Brown University. University Bulletin. Siloam Springs, Arkansas. 1954-55.
- Le Shere College. College Catalog. Arlington, California. 1955-56.
- Madison College. College Bulletin. Madison College, Tennessee. 1955-56.
- McPherson College. College Catalog. McPherson, Kansas. 1954-55.
- Morningside College. College Catalog. Sioux City, Iowa. 1955-56.
- Oakwood College. College Catalog. Huntsville, Alabama. 1955-56.
- Pacific Union College. College Catalog. Angwin, California. 1955-56.
- St. Ambrose College. College Bulletin. Davenport, Iowa. 1955-56.
- Southern Missionary College. College Catalog. Collegedale, Tennessee. 1955-56.

St. Benedict's College. College Bulletin. Atchison, Kansas. 1955-56.

Warrio College. College Catalog. Warrio, Missouri. 1955-56.

Texas Lutheran College. College Catalog. Seguin, Texas. 1954-55.

Union College. College Catalog. Lincoln, Nebraska. 1955-56.

University of Corpus Christi. University Catalog. Corpus Christi, Texas. 1955-56.

Wilmington College. College Catalog. Wilmington, Ohio. 1955-56.

VITA

Joseph P. Marak

Candidate for the Degree of

Master of Science

Report: A STUDY OF AGRICULTURAL OFFERINGS OF TWENTY-FOUR NON-TAX-SUPPORTED COLLEGES IN TWELVE STATES WITH A PROPOSAL FOR THE EXPANSION OF THE AGRICULTURAL OFFERINGS AT ST. MARY OF THE PLAINS COLLEGE

Major: Agriculture Education

Biographical and Other Items:

Born: April 19, 1925 at Perry, Oklahoma

Undergraduate Study: Murray State School of Agriculture, 1948-50, Oklahoma A. and M. College, 1950-52.

Graduate Study: Oklahoma A. and M. College, 1952-56.

Experiences: Lived on farm until 1943; Member of Armed Services, European Theatre, 1943-48; Patient, William Beaumont General Hospital, El Paso, Texas, Letterman General Hospital, San Francisco, California, 1945-48; employed as instructor of Agriculture by St. Mary of the Plains College, Dodge City, Kansas, 1953-56.

Member of Kansas Livestock Association, Kansas State Teachers Association.

Date of Final Examination: July, 1956.