

THE HISTORY AND DEVELOPMENT OF AGRICULTURAL EDUCATION
IN SECONDARY SCHOOLS OF THE UNITED STATES, WITH
IMPLICATIONS FOR A PROGRAM OF AGRICULTURAL
EDUCATION IN SECONDARY SCHOOLS OF CANADA

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TABLE OF CONTENTS

	<u>Page</u>
I INTRODUCTION	1
II HISTORY OF AGRICULTURAL EDUCATION IN THE UNITED STATES	4
Early agricultural societies and fairs	5
Pioneer movements in agricultural education	6
Land-grant college movement	8
Establishment of agricultural experimental stations	12
The United States Department of Agriculture	13
Establishment of agricultural extension work	14
Early demands for agricultural education in the schools	16
Early legislation in the establishment of schools of agriculture	18
Opposition to separate schools	20
III THE FEDERAL VOCATIONAL EDUCATION LAW	29
IV THE FEDERAL BOARD FOR VOCATIONAL EDUCATION	36
V OBJECTIVES OF VOCATIONAL EDUCATION IN AGRICULTURE	40
VI SUPERVISED FARMING	57
Historical development	57
Objectives	58
Use as basis for instruction	61
Types of projects	66
Production projects	67
Improvement projects	68
Supplementary projects	69
Placement for farm experience	70
Group projects	70
Long-time projects	71
The teacher and his responsibility	72
Selection of a good-farming program	74
Use of former student records	75
Use of home-farm survey	75
Parental co-operation	76
Factors of consideration	76
Budgeting	77
Financing the program	80
Business agreements	85

	<u>Page</u>
VII FARM MECHANICS	89
The importance of farm mechanics	89
Determining course of instruction	90
Areas of instruction	90
Organizing the content of the course	94
Evaluating the farm mechanics program	95
VIII FUTURE FARMERS OF AMERICA	97
Historical development	97
Administration	103
Membership	104
Degrees of Membership	105
Aims and purposes	105
The Future Farmers of America Foundation, Incorporated	107
Program of activities	107
Financing chapter activities	114
State and National Chapter Contest	114
Other contests	117
Contests and instructor's time	118
IX PART-TIME AND EVENING INSTRUCTION	120
Historical development	120
Young farmer classes	122
- Objectives	123
- Developing course programs	124
- - Some guiding principles	126
Young Farmer Associations	127
Adult Farmer classes	130
Need and growth	131
Objectives	132
Selecting and developing program	134
X DEVELOPING A PROGRAM OF VOCATIONAL AGRICULTURE IN A COMMUNITY	135
XI SUMMARY AND CONCLUSIONS	142
XII BIBLIOGRAPHY	149
APPENDIX	154

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I. INTRODUCTION

The future of any country depends on the quality of its people. The quality of the people tomorrow depends mainly on the quality of education provided for young people today. A country's most precious resources are its boys and girls.

In Canada the outstanding need of education is equalized opportunity for its boys and girls. Virtually ten distinct systems of education exist in Canada, namely, the two sections of the system in the Province of Quebec, Catholic and Protestant, and the systems of the eight other provinces. Small populations spread over large areas has often meant unequal opportunities in education. Diversity of practice is inevitable.

Canada may be regarded in one sense as a unit, the great northern expanse of British North America. It may be thought of as an area which has characteristic differences but no less important characteristics in common.

Students in rural areas usually attend small schools. As a rule only the larger urban schools have adequate facilities to present subjects of more general appeal and various extra-curricular activities. Everyone will agree that one important undertaking must be to give young people

in the country the same advantages. This can be done only by establishing larger secondary schools at central points in rural areas and by providing transportation, and in some cases, dormitory facilities. The Educational Policies Committee of the Canada and Newfoundland Education Association recognizes the need for larger administrative areas. "The need for rural administrative areas larger than the school section is universally accepted among educators. There is difference of opinion only as to how large the area must be and as to how rapidly the transition may be effected by democratic processes in the face of local resistance jealous of narrowly local prerogatives. In 1944 most provinces reported greater or less progress towards the larger local unit" (40, p. 20). There is much discussion among educators about possible changes of emphasis in teacher training, about new courses, and about co-ordination of existing courses.

Among the trends in Canadian education is the growing prestige of vocational education. There appears to be a demand for direct action in establishing immediate practical utility courses. This tendency undoubtedly has been enhanced by the remarkable contribution of technical schools, and of emergency classes in the later war effort in particular. Coupled with this is an increasing demand for vocational guidance. In several provinces separate

vocational schools are proposed. In all, except the largest communities, the type of school envisioned is a composite school having general education as its chief aim, with optional courses in academic, commercial, agricultural, industrial and home economics subjects. (40, pl-24).

Purpose and Value of the Study:

Agriculture is the most important single industry of the Canadian people. According to the Canadian Census of 1941, 25.2 per cent of the total gainfully occupied population and 30.5 per cent of the gainfully occupied males are employed in agriculture. (41, p.250-251). Despite the importance of agriculture, very little vocational agriculture is being presented in Canadian schools. Several regional agriculture schools are found throughout the Dominion, and a few more are to be constructed. However, it is expected that the majority of rural students will be reached in the future by composite schools in rural centers, and that vocational agriculture will be offered.

In order to have successful farm operators of tomorrow it is essential that today's farm youth be adequately trained. Not only is there an increasing need for trained farmers, but there is also an increasing need for workers in agricultural occupations other than farming. Another aspect of agricultural education is the contribution through instruction for out-of-school farm youth, and adult farmers.

Farming is a business and has become highly organized, specialized, and mechanized. Production, management and marketing problems are more complex than formerly, and competition is becoming keener each year. Many diverse and involved factors add to the complex problems of the farmer. He must be able to form judgments, carefully evaluate and arrive at proper conclusions and decisions in solving problems to meet his situation. The teacher of vocational agriculture has a responsible and technical job, and it requires much organization on his part to instruct the subject.

Little is known in Canada concerning vocational education in agriculture as it is organized and presented in the secondary schools of the United States. It is felt that a comprehensive survey revealing the history and development of agricultural education in the United States, the accepted philosophy, and the ways and means American educational practices are built upon this philosophy, will be of value to Canadian teachers, administrators, and community leaders. The discussion to follow attempts to make a contribution to that end.

II. HISTORY OF AGRICULTURAL EDUCATION IN THE UNITED STATES

The early American farmer labored under handicaps, and he had little interest in education of any kind. It was not until near the close of the eighteenth century

that practical men began to give science any thought so far as it applied to agriculture. With the formation of agricultural societies and fairs there came a new awakened interest in agriculture.

Early Agricultural Societies and Fairs:

Agricultural societies and fairs were probably the first organized efforts to improve agriculture. George Washington and Benjamin Franklin were members of the first society for the promotion of agriculture, which was organized in Philadelphia in 1775. Washington was one of the best technically trained men of his day, and he showed a great interest in Agriculture. About the same time a similar society was organized in South Carolina, which advocated, among other things, the establishment of the first experimental farm in the United States. In 1792 the New York Society for the Promotion of Agriculture was organized, followed by similar societies in Connecticut and Massachusetts.

An outgrowth of the work of the agricultural societies and the desire of men to exhibit their importations of improved types of farm animals from Europe resulted in the establishment of fairs and exhibits. Massachusetts had the first fair in 1804. Farmers in Maryland and Virginia organized the Columbian Agricultural Society in 1809 to further agriculture by means of fairs.

From the beginning the various State and local

agricultural societies and fair associations have been strong factors in the direct improvement of agriculture and in securing additional means for improving the lot of the farmer. Several movements of a national nature have had a wide-spread influence. Most notable of these are the National Grange (Patrons of Husbandry), organized in 1867, and becoming a national society in 1873, the Farmers' Alliance, the Brothers of Freedom, and the Farmers' Educational and Co-operative Union.

Many of the societies have been instrumental in securing national and state aid for the promotion of agricultural instruction in the schools. In his Doctor's Dissertation, H. M. Kennedy concludes the following: "Early American Agricultural Societies patterned their organization and efforts after those of the English and their most prominent contribution to agricultural progress was through dissemination of information about improved agricultural practices. These efforts were stimulated by a desire to aid our country in escaping European economic domination." (27, p.131).

Pioneer Movements in Agricultural Education:

One of the earliest proposals to provide instruction in agriculture was issued by William Smith in 1751. His plan, providing for the chemistry of agriculture, was carried out more or less fully at Philadelphia Academy (University of Pennsylvania). The original prospectus of

King's College (Columbia University), 1754, mentioned Husbandry and Commerce, and Agriculture and Merchandize were adopted in the following year. Samuel Latham Mitchell, M.D., held the chair of botany and agriculture in 1792. As a practical farmer he attempted to elucidate and explain the economy of plants, their affinity to animals, and the organization, excitability, stimuli, life diseases, and death of both classes of beings. (37, p.5).

Probably the first agricultural, industrial and technical school that did actual work in North America was the Gardiner Lyceum, established at Gardiner, Maine, in 1821. In 1823, and from 1825 to 1831, the state legislature appropriated one thousand dollars from the state treasury. This marks probably the first state grant for agricultural education in the United States. The enrolment was one hundred and twenty by 1825, and the school continued with varying success until 1832, when it had to be closed because of lack of public support.

The schools at New Harmony, Indiana, established agriculture and other industrial work in an educational way for pupils of elementary and secondary school age, in 1825. This was part of the socialistic movement known as the "New Harmony Movement" under the direction of William Maclure. Maclure placed the schools in charge of Joseph Neef, whom he had brought to introduce Pestalozzi's method of teaching. He provided ample dormitories, books, museums,

shops, experimental plots, and other facilities. Because of religious intolerance on all sides, the experiment was short-lived.

A pioneer movement in agricultural education was the Oneida Manual Labor Institute, conducted by George Washington Gale from 1827 to 1834, which included instruction in carpentry and agriculture.

Early in the last century, sporadic attempts were made to introduce regular instruction in agriculture as a part of the school curriculum, as at Dummer Academy, Newberry, Mass., 1824; Derby, Conn., 1824; The Farm School, Thompson's Island, Boston, 1833; Teachers' Seminary, Andover, Mass., 1838; The Peoples' College, Montour Falls, N.Y., 1853; Westfield (Mass.) Academy, 1856; Powers Institute, Bernardston, Mass., 1857; and Bussey Institute, Mass., 1870. Most of these attempts were more or less futile, but their experience was valuable to later establishments. With the establishment of a chair of agricultural chemistry and vegetable and animal physiology at the Sheffield Scientific School, Yale, in 1848, work of recognized scientific merit was inaugurated.

Land-Grant College Movement:

Historically the movement for agricultural education in the United States dates back to the Eighteenth Century when the associations for the promotion of agriculture began to be formed. There were no agricultural colleges in

America before the middle of the last century. In 1792, Columbia University followed by Harvard and Yale, undertook to provide for instruction in agriculture, mainly in response to the agitation of the agricultural societies.

The first formal effort made in the United States to present the claims of agricultural education to a legislature was probably made by the Philadelphia Society for the promotion of agriculture, connecting with it the education of youth, in the knowledge of the most important art. (17, p.6). This committee made a report offering several alternative propositions for promoting agricultural education.

During the second quarter of the last century there sprang up a new interest in agricultural instruction. There came to Congress a stream of requests, petitions and memorials asking for grants of land and money for educational or for charitable purposes. Agricultural societies began to recommend the establishment of agricultural schools and in 1846 a committee of Congress was appointed to consider the problem. States became interested, and in 1847 a committee of the New York legislature recommended the establishment of a school in the State to teach agriculture and mechanical arts. In 1850 Michigan petitioned Congress for funds to establish an agricultural school, which was seconded by Illinois in 1851.

In 1857 Justin Smith Morrill introduced his first

bill into the National Congress. This authorized the establishment of colleges in all the states, and for their maintenance provided 20,000 acres of public lands for each member of Congress.

It is interesting to note the trend of arguments offered by Mr. Morrill before Congress in the year 1858.

I. L. Kandel of the Carnegie Foundation in reviewing congressional records cites the following points:

"Mr. Morrill began his address by reminding the House of the literal bombardment of petitions it had undergone on this subject from the various states, 'North and South,' state societies, country societies, and individuals. Hardly a day had passed since the beginning of the session that had been without some petition in favor of this bill. 'All direct encouragement to agriculture has been rigidly withheld,' but 'when commerce comes to our doors, gay in its attire and lavish in its promises, we "hand and deliver" at once our gold. When manufacturer appears, with a needy and downcast look, we tender, at worst, a "compromise".'

"Federal aid in favor of agriculture, Mr. Morrill contended, was imperatively needed. So defective is the method of agricultural cultivation that year by year the American soil is becoming poorer and 'many foreign states support a population vastly larger per square mile than we maintain.' The one way to overcome this condition, Mr. Morrill continued, was to enable each profession to educate itself. 'It is plainly an indication that education is taking a step in advance when public sentiment begins to demand that the faculties of young men shall be trained with some reference to the vocation to which they are to be devoted through life.' A system of agricultural colleges would interfere in no way with the existing literary colleges." (24, p.73-75)

The bill was referred to the House Committee on Public Lands, which presented an adverse report. Notwith-

standing this, the bill passed both houses at the following session, but was vetoed by President Buchanan. In December, 1861, Mr. Morrill introduced a new bill in which the 20,000 acres was increased to 30,000. In spite of another adverse report by the House Committee, the bill passed both houses and was approved by President Lincoln. On July 2, 1862, President Lincoln signed the bill which has been since known as the Morrill Act.

This act provided for Federal aid as a stimulus to State aid in establishing colleges of agriculture and mechanic arts. Inasmuch as the Federal aid given was in the form of grants of public land, the institutions established have become known as the land-grant colleges.

Agricultural colleges had already been established in the following States: New York, Pennsylvania, Michigan, Connecticut, and Maryland, before the land-grant act was passed. The Michigan Agricultural College, opened to students in 1857, was the oldest. In other States, notably Kansas, Iowa, Wisconsin, Massachusetts, and New Hampshire, departments of agriculture were established in connection with existing institutions. These departments afterwards developed into colleges which secured the benefit of the land-grant act. Such institutions as Harvard, Yale, and the Universities of Virginia and Georgia made some advancement in agriculture as a science before the Federal-aided agricultural colleges were established.

The fact that the Morrill Act is often spoken of as the predecessor of all other appropriations by the general government for education has led to considerable glorification of Senator Morrill.

No sooner had the colleges become established than Senator Morrill and his colleges began a campaign for additional funds. Their efforts were unsuccessful, however, until 1890, when the so-called second Morrill Act was passed. This act provided for each college then established an additional sum of \$15,000 for that year and an annual increase of that amount thereafter of \$1,000 until the annual appropriation should reach \$25,000 for each State. These funds were further supplemented in 1908 by what is known as the Nelson amendment, which provided for an additional sum of \$15,000 to be given that year and additional sums of \$5,000 for four succeeding years until the total appropriation from the Federal Government would be \$50,000 each year.

Establishment of Agricultural Experimental Stations:

Although many of the States established experiment stations in connection with the agricultural colleges, the greatest impetus was given this movement by the passage of the Hatch Act in 1887. This act provided \$15,000 each year of funds from the sale of public lands toward the establishment and support of an agricultural experiment station in each state. Prior to 1888, there had been twenty

experiment stations in the United States, but in that year alone, owing to the encouragement of the Hatch Act, twenty-six new ones were established.

The Hatch fund was supplemented further in 1906 by the passage of the Adams Act. This act appropriated an annual sum of \$5,000, with an increase of \$2,000 each year until the total sum per year reached \$30,000. The franking privilege was most helpful to the stations in the distribution of their mail.

Feeling that this was one of the best investments the Government ever made, the Purnell Act of 1925 further increased the grant to fifty thousand dollars for 1925-1926 with an additional increase of ten thousand dollars a year until 1929-1930 when ninety thousand was reached. The value of the results that have been derived from these grants is difficult to estimate. It laid the basis for teaching agriculture in the schools, and furnished a wealth of information to the farmer.

The United States Department of Agriculture:

Previous to 1839, Congress did not aid agriculture. George Washington, as President, favored congressional aid for agriculture, and so recommended it, but Congress at that time did nothing by way of direct aid to the farmer. In 1836 the Patent Commissioner received a considerable quantity of seeds and plants from representatives of the Government abroad and distributed them to progressive

farmers in this country. Although this work was begun without authority or financial aid, it led to an appropriation of one thousand dollars, made for such purposes in 1839. The Patent Office soon began collecting and disseminating statistics and other information as well as seeds. The work grew in this office until, in 1862, the same year the agricultural colleges were established, a separate department was organized, with a commissioner of agriculture at its head. In 1889 this department was raised to the first rank in the executive branch of the Government, and was put under the direction of a Secretary of Agriculture, a Cabinet member.

The Department of Agriculture has had a phenomenal growth. Through direct contact of its corps of trained specialists, and by extensive correspondence and publications, the department has aided the agricultural colleges in the direct education of the people. It has done a great deal to aid the colleges and schools of lower grade in their problems of instruction, as well as research.

Establishment of Agricultural Extension Work:

It became evident in time that a more comprehensive program and a better organized plan for the distribution of information was essential for reaching the men and women on the farm. The experiment stations and the Department of Agriculture had accumulated a great mass of scientific material pertaining to agriculture, but very little

diffused among the people of the land. Early in the history of the colleges, however, an effort was made to take their information directly to the farmer. Farmers' institutes developed along with agricultural societies and fairs. Once again Federal aid was sought and secured in what is known as the Smith-Lever Act. This "Agricultural-Extension Act," passed in 1914, provided co-operative agricultural extension work between the agricultural colleges in the states receiving the benefits of the Morrill Act of 1862, and of acts supplementary thereto, and the United States Department of Agriculture. The money was not to be spent upon resident instruction, but provided for various means of instruction away from the college.

"Four points in this Act are to be noted: (1) The Act aids in the diffusion among the people of the United States of useful and practical information on subjects relating to agriculture and home economics; (2) The extension work is to be done in connection with colleges; (3) Instruction and practical demonstrations in agriculture and home economics, shall be given 'to persons not attending or resident in said colleges in the several communities.' It will be found that this provision made possible a duplication of some work authorized under the Smith-Hughes Act, the benefits of which are intended only for instruction lower than college grade; (4) Cooperation is demanded between the States, the Colleges and the United States

Department of Agriculture." (24, p.152)

At the beginning, \$10,000 for each State was appropriated, a total of \$480,000. This sum was to increase year by year until an annual appropriation of \$41,000,000 was reached. This sum is divided among the States in the proportion that rural populations bear to the entire rural population of the country. The States must meet the Federal appropriation dollar for dollar.

Trained, professional agricultural extenders in the Extension Service, maintained by the States in cooperation with the Federal Government, go out from nearly three thousand different county offices, to forward agriculture, day by day. About three hundred counties have club agents, paid leaders of 4-H clubs ("Heart-Head-Hand-Health") for boys and girls. It has been the experience of many extension workers in agriculture and home economics that time and money were more effectively spent upon boys and girls than upon mature farmers and their wives. In many cases it was found to be easier to reach the fathers and mothers through the boys and girls; hence the boys' and girls' club movement and other forms of extension work among young people have been given an increasing amount of attention.

Early Demands for Agricultural Education in the Schools:

The demand that agriculture be taught in the public schools was a radically new movement in education at the

beginning of the twentieth century. It was a live problem in which both the farmer and the educator were seriously interested, and it was one whose solution concerned them both.

Two different methods were proposed for meeting the new educational demand in the secondary schools. One method proposed a separate system of schools for country people, to be known as agricultural high schools, farm schools, etc., in which agriculture for boys and domestic science for girls should be the leading subjects taught. The other method proposed a single system of secondary schools for both the country and the city. This latter method proposed that the high schools be expanded in personnel, equipment, and courses, so as to "minister to the natural interests of their environment, whatever they may be, agricultural, mechanical, commercial, library, and what not." In order that they be able to meet the educational needs of their communities, and evolving into true secondary schools, it was proposed that the ungraded schools in the thinly populated country districts should be condensed into larger and stronger units. (11, p.21)

Special schools were advocated for youth who had to put in the summer months in work on the farms. These schools would be open for five or six months of the year in the daytime, and would furnish industrial, business and

agricultural training. It was explained that in such schools the applications of general education to vocational work could be made only by men who knew the vocations.

In such a system of separate schools a special tax would have to be raised to support them, as the revenues of the time were insufficient for the needs. Persons saw the tax as a combined community and state endeavor, with one half raised by the community served, and one half provided in the shape of a state grant when authorized by Commission on Vocational Education. (9, p.10)

Early Legislation in the Establishment of Schools of Agriculture:

During the period from 1900 to 1917, many of the states started to develop state programs. These programs varied in different ways, but were usually centered around a school established for the teaching of agriculture. The legislature of many states provided for the establishment of county agricultural and training schools to be maintained jointly by the county and state.

The first state to organize a state school for the teaching of agriculture was Minnesota. The school was organized in 1888 in connection with the Agricultural College at the State University. Nebraska and California also established state schools.

The states of Georgia, Alabama and Virginia provided

separate agricultural schools known as Congressional Agriculture Schools. In the state of Georgia one school was established in each congressional district. Each locality furnished at least 200 acres of land, all of the buildings, livestock and equipment. The state appropriation was \$6,000 per year for each school. The state of Georgia received 3,044 acres of land and cash donations of \$470,000 to help its eleven schools to qualify for the appropriation.

Schools which were very much like the congressional agricultural schools of Georgia were organized in the state of Oklahoma. In this state they were called Judicial District Schools. Each school had to provide not less than eighty acres of land.

Wisconsin, Michigan, and Mississippi organized County Agricultural Schools. Wisconsin Laws in 1901 provided that the state would pay to the county maintaining a school of agriculture a sum equal to one-half the amount actually expended for instruction during the preceding year; provided, the amount given to one county did not exceed \$2,500. The law was later amended so as to pay two-thirds of the salary, not to exceed \$4,000 to any one county. At least three acres of land had to be provided for farm practice.

Agricultural departments were established in various high schools of Massachusetts, New York and Louisiana. Massachusetts witnessed in 1908 the origin of the "home

project" plan of teaching agriculture under the direction of R. W. Stimson, "father of supervised farming." Practically one-third of the school time was devoted to practical work on the home project under the supervision of the agricultural teacher. The state reimbursed the high schools which maintained such departments two-thirds of the salaries of the teachers.

Teaching agriculture in a group of schools was undertaken by South Carolina. Under the law, any group of two or more schools could combine for the teaching of agriculture and receive one-half of the salary of the teacher. Home projects were used for the practice work of the pupils. The teacher went from one school to another, either daily or two or three times per week, depending upon the number of schools composing the group. (15, p.1-7)

Opposition to Separate Schools:

Some leaders in agriculture and education expressed disapproval of separate agricultural schools. They favored the unified plan, which called for the introduction of agriculture as a course of study in the established high schools of the community.

Eugene Davenport of the University of Illinois, a college administrator, felt strongly about secondary education and could see clearly into this vital problem with which vocational agriculture was faced. He did not believe in that philosophy of education which would

establish separate schools for the various industries and occupations of life.

"I greatly prefer that theory of social and industrial development which would establish and maintain a single system of schools wherein the people of all classes should be educated together, distinct courses being framed and conducted for the benefit of each insofar as the interests differ from those of the common mass or of other professions." (11, p.3)

Reasons for Dean Davenport's preference are briefly as follows:

1. Every man ought to be educated in an atmosphere not especially prepared for him and his own kind, but in an atmosphere and an environment much broader than his own interests. If democratic institutions are to be preserved, and if people are to labor together in peace and understanding, all classes must be educated in an atmosphere at least as liberal and as broad as all the interests of any single community can make it. Separate schools lose more in breadth than they gain in directness, and can never rank in real service to that other type which ministers to many and gains directness by its distinctly separate courses.
2. To segregate any class of people from the common mass, and to educate it by itself and solely with reference to its own affairs, is to make it narrower

and more bigoted generation by generation. It is to substitute training for education and to breed distrust and hatred in the body politic. Knowledge is necessary to a just appreciation of other people and their professions and mode of life; with this only can a man respect his own calling as he ought and love his neighbor as he should. We cannot segregate and make an educational cleavage at the line of occupations except to the common peril.

3. It is true that an individual should be educated through and to a large extent by means of his environment, because that is the compass of his own experience; but if we educate him within his environment, we dwarf him in the process, and we do not truly educate him.

In these days of universal education we must teach what the world needs to know for all its essential activities, and we must so conduct our schools as not to greatly disturb the economic or social balance of things; so conduct them that the overflow from one occupation or class shall be naturally compensated by a corresponding inflow of equally desirable individuals from others - all of which is necessary if universal education is to be an unmixed blessing.

4. Secondary schools devoted solely to agriculture would of necessity cover so much territory as to require the students to board and room away from home.

This for students of the high school age is unthinkable. Every boy and every girl in the early and middle "teens" should sleep every night under the father's roof, and this can be if a community establishes a single school capable of catering to all its needs.

The problem of secondary education is very largely the problem of the fourteen-year-old, and we should never rest easy till every farmer's boy and girl may go to the nearest high school, and there find instruction not only in agriculture but in the other industries and professions which concern the community, and after having lived the day in an atmosphere broader than their own studies go home again at night to dream of what a great thing the world is and to wake with an intelligent appreciation of the place in it which they propose to occupy.

5. If farmers and lawyers and editors and engineers and artists and merchants are educated separately they will either hate or despise each other, or both; if they are educated together, each will acquire, besides proficiency in his own line, a sympathy for others that comes so easily with that partial knowledge and acquaintance through daily association in the school age, and that comes with so much difficulty in any other way.

Agriculture not only needs contact with other

interests, but they need contact with agriculture. Some portion of the training of every individual should be industrial, even manual, and another portion of the training of every individual should be distinctly mental, until habits of thought are formed quite independent of material activity. For these reasons, which are fundamental, industry should not be separate from any of our schools.

6. To establish separate schools for agriculture is to injure the development of existing high schools. These high schools like all others, have the natural right to minister to their constituency; but if agriculture is to be put off into a separate system of schools just because the high schools have not yet taught the subject, then it will be easy, later on, to cleave off another industrial slice, and again another until the remnant that remains will be suited to nobody's need, unworthy alike of the school and the community it was established to serve; and instead of an organized system of effective education we shall have an incongruous medley of separate and independent schools, each serving its little clientele in a narrow way without much regard to the public good - all of which is against the true spirit of universal education.
7. Separate schools in agriculture will check the extension of high schools into country communities.

If the interests are not divided it is entirely possible for any community, without going beyond driving limits, to throw all its energies into a school of secondary grade and make it capable of truly reflecting all its varied interests.

8. It is unnecessary to found separate schools in order that agriculture shall be taught, and well taught. We are living in an age which recognizes that the highest purpose in education is to get ready to live; that real education is active, not passive; and that its fruitage is service, not personal gratification. If the schools have not yet solved all the problems and taught all the subjects the people need, it is no sign that they cannot or that they will not, and they should be given the chance. All the modern secondary school needs in order to serve us perfectly is men and money, and time to learn how.

9. The American high school is a form of secondary education that has arisen, or more properly speaking is arising, to meet this new demand for universal education. Agriculture, and industrial education generally, have found their true place in the universities. The next step is that they should find their true place in our secondary schools, where, after all, our attempt at universal education will render its greatest service. (11, p.1-22)

Previous to the Vocational Education Act of 1917, there was a surprising amount of activity in agricultural teaching, both in elementary and secondary schools in many states. Twenty-three states made grants in aid to high schools for the teaching of agriculture. In addition, agriculture was taught in some high schools of 16 other states. In approximately four-fifths of the states, agriculture was taught in the high schools before 1917.

Previous to that date the teaching of agriculture in high schools had begun in all of the states of the North Central Region and in nearly all the states of the North Atlantic and Southern Regions. (39, p.607-609)

Dr. E. Davenport, Dean of the College of Agriculture, University of Illinois, expressed his opinion in 1907 on the place of agriculture in the American system of education.

"As I see it, every high school that has a natural agricultural constituency of any considerable importance should put in a department of agriculture on the same basis as its department of chemistry, and proceed to offer at least one year of real technical agriculture taught from the standpoint of the farm, accompanied by such collateral instruction in the arts and sciences as shall provide a suitable course for such of its pupils as find their interests in the country and on the farm." (11, p.18)

"The new ideal is that education should be for

something instead of fitting for nothing, and this ideal will prevail among a practical people like ourselves. Educators can take hold of this natural bent for practical activity and cultivate it until as a people we shall be both efficient and cultivated. If they do not do this the efficiency will develop by itself and we shall all come short of our highest possibilities.

The new demand upon the schools is that they should not only picture life as it was in the past, but also as it is now; that they should assist the student in understanding modern life into which he must plunge, and whose responsibilities he must shortly assume. The student feels the right to demand that some portion of his educational career and some part of his school curriculum should be devoted to making application of the wisdom of the ancients and the philosophy of life to the conditions of modern existence. In other words, that a system of universal education shall universally educate, not in art without industry; not in industry without art, but in both art and industry so joined as to make possible the highest civilization and the greatest development of which the human race is capable. To this end may agriculture, like every other form of useful activity, find its place in our existing system of education, and may that place be one that comports with the importance of the profession, the mode of living of its followers, and the philosophy of life on which our great

social structure rests; for after all, the greatest thing in the world is to live a full and perfect life."

(11, p.19-20)

Edwin G. Colley, in a speech to the Commercial Club of Chicago in 1912, stated that the demands on school education were increasing with the advancing development of society. The rapid transition of the people from country life to city life, the development of the industries and commercial activities, and the transformation of the social body due to these changes had increased the demands upon young people, and therefore upon the school. Cooley thought vocational high schools should supplement secondary schools.

In the Report of the United States Bureau of Education for 1911, the number of children of school age was estimated at 25,016,501. Of these 17,813,852, or 71.3 per cent, were enrolled in the public elementary and secondary schools, about 5 per cent in the secondary schools, and about 2 per cent in the higher institution of learning.

About one half of these children left school, presumably at fourteen years of age when compulsory attendance ended, or over, before finishing the sixth grade. About one third entered the eighth grade. It was becoming apparent that the schools were not reaching, in a satisfactory way, about two thirds of those enrolled. To assist this neglected two thirds in preparing for life's problems

some further effort had to be made. (9, p.1-15)

III. THE FEDERAL VOCATIONAL EDUCATION LAW

In the early stages of the development of the modern movement for vocational education some educators advocated an entirely separate system of administration for vocational education, totally distinct and apart from the then existing form of general academic education. The state of Wisconsin created a separate State Board for Industrial Education in 1911, with provisions for separate local boards and separate taxation for vocational education. Their system was developed after a thorough study had been made of the German system of education. Massachusetts appointed its commission on Industrial and Technical Education in 1905. "The advocates of vocational education were not in agreement among themselves on the point of the desirability of separate state and local boards. All this resulted in a bitter controversy which probably did more to clarify the principles, objectives and methods of vocational education than any other single thing." (34, p.80)

In accordance with the recommendation of the Commission on National Aid to Vocational Education, Congress enacted the Federal Vocational Education Law, known as the Smith-Hughes Act, in February, 1917. The House and Senate passed the Act less than two months before the entrance of the United States into the First Great War. It was a

peculiarly opportune moment since there was a need of industrially trained men and women, and also a want of facilities for training men and women vocationally. It was an achievement toward universal education.

During the first two years of its existence remarkable progress was made by the Federal Board in stimulating every state of the union to a new interest and activity with regard to secondary vocational education. State organizations were effected with amazing promptness, provisions made for teacher-training, and actual courses started over all the country. By January 1, 1918, all the forty-eight states accepted the Smith-Hughes Act, either by specific provisions of the legislatures, or by authority of the governors.

Some of the states had already established the work in their schools, and other states were preparing to institute schools of vocational agriculture. As a result, there was a rapid growth in departments of agriculture in high schools when Federal funds became available. During the first year in which such funds were available (1918), 609 vocational agricultural schools were reimbursed from Federal funds. A steady growth in total enrolments in vocational agriculture persisted until 1942 when a number of departments of vocational agriculture closed because of the Second World War. In 1941-1942 there were 9,059 all-day departments. The enrolments of classes for that fiscal

year were as follows: All-day, 332, 939; Day-Unit, 7,701; Young Farmer, 49,977; Adult Farmer, 214,582; and the total of these classes was 605,099 persons.

One of the significant developments was the recognition on the part of agricultural education leaders and teachers of the fact that good teaching procedure is as important in carrying on part-time and evening school classes as in conducting all-day classes. The importance of programs of vocational education in agriculture for out-of-school young men and adult farmers was realized by those persons and groups responsible for the development and motivation of vocational education. The Smith-Hughes Act mentioned specifically, among other things, that such education was intended for those "who have entered upon.... the work of the farm."

Up to World War II, very little had been done as far as the need for adult education in agriculture was concerned. A definite proof that farmers will enroll in adult courses in agriculture, if given what they want, the way they want it, and where they want it taught, was shown in the number of courses offered and the number of persons enrolled in the Food Production War Training Program during World War II. Special funds were made available for an expanded program in adult education. "From the beginning of this program in December, 1940, to the close of the program in 1945, there were a total of approximately

200,000 courses conducted in approximately 15,000 rural communities, with 4,500,000 persons enrolled. This was in addition to the 936,018 persons enrolled in adult classes for the same period, reimbursed from Smith-Hughes and George-Deen funds." (S, p.654)

The Vocational Education Law, while creating a separate board for Federal control of vocational education, leaves it entirely to the states to designate the present State Board of Education, or any other state board such as a separate Board for Vocational Education, to take charge of vocational education. In order to secure the appropriations provided for in the Smith-Hughes Act each state was required, through its legislative authority, to accept the act and to designate or create a state board for vocational education consisting of not less than three members vested with the necessary power to co-operate with the Federal Board for Vocational Education in the administration of the Federal program.

With reference to State Vocational Education Plans, the following regulations are specified in the Smith-Hughes Act:

Sec. 5: That in order to secure the benefits of the appropriations provided for in sections two, three, and four of this Act, any State shall, through the legislative authority thereof, accept the provisions of this Act and designate or create a State board, consisting of not less

than three members and having all necessary power to co-operate, as herein provided, with the Federal Board for Vocational Education, in the administration of the provisions of this Act.

Sec. 8: That in order to secure the benefits of the appropriations for any purpose specified in this act, the State board shall prepare plans, showing the kinds of vocational education for which it is proposed that the appropriation shall be used; the kinds of schools and equipment; courses of study; methods of instruction; qualifications of teachers; and, in the case of agricultural subjects, the qualifications of supervisors or directors; plans for the training of teachers; and, in the case of agricultural subjects, plans for the supervision of agricultural education as provided for in section ten. Such plans shall be submitted by the State board to the Federal Board for Vocational Education and if the Federal board finds the same to be in conformity with the provisions and purposes of this Act, the same shall be approved. The State board shall make an annual report to the Federal board for Vocational Education, on or before September first of each year, on the work done in the state and the receipts and expenditures of money under the provisions of this Act. The requirement that each state submit plans for each fiscal year for approval by the Federal board was modified so that beginning July 1, 1922, a state may submit a plan with a

request for a five-year period instead of one.

Sec. 9: That the appropriation for the salaries of teachers, supervisors, or directors of agricultural subjects and of teachers of trade and industrial subjects shall be devoted exclusively to the payment of salaries of such teachers, supervisors, or directors having the minimum qualifications set up for the state by the state board, with the approval of the Federal Board for Vocational Education. The cost of instruction supplementary to the instruction in agricultural and in trade and industrial subjects provided for in this Act, necessary to build a well-rounded course of training, shall be borne by the state and local communities, and no part of the cost thereof shall be borne out of the appropriations herein made. The moneys expended under the provisions of this Act, in co-operation with the states, for the salaries of teachers, supervisors, or directors of agricultural subjects or for the salaries of teachers of trade and industrial subjects, shall be conditioned that for each dollar of Federal money expended for such salaries the state or local community or both, shall expend an equal amount for such salaries; and that appropriations for the training of teachers of vocational subjects as herein provided, shall be conditioned that such money be expended for maintenance of such training and that for each dollar of Federal money so expended for maintenance, the state or local community, or both, shall expend an

equal amount for the maintenance of such training.

Sec. 10: That any state may use the appropriation or any part thereof allotted to it, under the provisions of this Act, for the salaries of teachers, supervisors, or directors of agricultural subjects, either for the salaries of teachers of such subjects in schools or classes, or for the salaries of supervisors or directors of such subjects under a plan of supervision for the state to be set up by the state board, with the approval of the Federal Board for Vocational Education. That in order to receive the benefits of such appropriation for the salaries of teachers, supervisors or directors of agricultural subjects, the state board of any state shall provide in its plan, for agricultural education that such education shall be that which is supported and controlled by the public; that the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and be designed to meet the needs of persons over fourteen years of age, who have entered upon or who are preparing to enter upon, the work of the farm or of the farm home; that the state or local community, or both, shall provide the necessary plant and equipment determined upon by the state board with the approval of the Federal Board for Vocational Education as the minimum requirement for such education in schools and classes in the state; that the amount expended for the maintenance of such education

in any school or class receiving the benefit of such appropriation shall be not less annually than the amount fixed by the state board, with the approval of the Federal Board, as the minimum for such schools or classes in the state; that such schools shall provide for directed or supervised practice in agriculture either on a farm provided for by the school or other farm, for at least six months per year; that the teachers, supervisors, or directors of agricultural subjects shall have at least the minimum qualifications determined for the state by the state board with the approval of the Federal Board for Vocational Education.

Because of the differing social, economic, and industrial conditions throughout the country it would be impossible to set up a single uniform plan for the country as a whole. Each state is regarded as a unit by the Federal Board when administering Federal aid. Federal authority to disapprove State plans does not imply authority to dictate or initiate State plans. It implies only authority to determine conditions of reimbursement under the Federal Act. Within one year after the passing of the Smith-Hughes Act all the States had accepted all its provisions.

IV. THE FEDERAL BOARD FOR VOCATIONAL EDUCATION

The membership of the Federal Board for Vocational Education, created by the Smith-Hughes Act, was made up of the Secretary of Agriculture, the Secretary of Commerce,

the Secretary of Labor, and the Commissioner of Education, as ex officio members and three citizens representing agriculture, labor, and manufacture and commerce. The latter three lay members were appointed by the President, and confirmed by the Senate, and were to serve for three year terms on compensation, one member being appointed annually.

The first meeting of the Federal Board was held on July 21st, 1917, at which time the organization and plans for co-operating with the States in the promotion of the federally aided program of vocational education were discussed. Staff members were selected, and chiefs of service were appointed for agriculture, industrial education, home economics, and research. In November of the same year, a special agent was appointed for commercial education to serve temporarily in the place of the chief of this service.

The Federal Board divided the country into five regions for convenience and for purposes of administration, inspection and service to the States. The five regions were as follows: 1. North Atlantic, 2. Southern, 3. North Central, 4. West Central, 5. Pacific. An agent for each of these regions was appointed to represent the Federal Board in promoting and organizing the work in agriculture, industrial education and home economics.

The West Central Region was discontinued in 1920, leaving four regions consisting of the following States:

1. North Atlantic: Connecticut, Delaware, Maine, Maryland,

Massachusetts, New Hampshire, New Jersey, New York, Ohio, Rhode Island, Pennsylvania, Vermont and West Virginia.

2. Southern: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.
3. North Central: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, South Dakota and Wisconsin.
4. Pacific: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming.

On June 30, 1920, the regional offices were abandoned and the regional agents were moved into the central office of the Federal Board for Vocational Education in Washington, D. C.

Among the duties of the agents were: To work with State Boards for vocational education in setting up programs of agricultural education in secondary schools, developing plans for agricultural education, and making studies and gathering information regarding methods adopted by the State boards and local schools; to inspect federally aided programs to determine whether they were in keeping with the law and the policies promulgated by the Federal Board for Vocational Education; to hold conferences with representatives of State boards on administrative policies

and professional activities; to work with State directors and supervisors in improving standards in supervision and teacher training; and to audit State accounts for vocational education to see if Federal funds were expended in accord with the law and the State plans. (39, p.502)

In January, 1921, the regional agents in agricultural education were assigned special responsibilities for study and investigation. The regional agents carried on this investigational work in (a) subject matter and methods of instruction, (b) supervised farm practice, (c) part-time and evening schools, and (d) teacher training. As a result of these studies, several publications were prepared and issued, until 1929, when funds provided under the George-Reed Act, permitted the appointment of four special agents to assume these and other responsibilities.

In 1917 the Board held at Washington a series of conferences with the State boards of education, and State boards for vocational education. The purpose of the law was discussed, with particular reference to the general principles upon which it is based, and the methods by which these principles should be put into practice. Of great assistance to the States in developing the vocational education program in compliance with the law was Bulletin No. 1 of the Federal Board for Vocational Education. This publication was the result of the conferences and was titled "Statement of Policies for the Administration of

Vocational Education." Because of changing conditions and the development of new problems as a result of experience in the field, this bulletin was revised in 1922, 1926 and 1937. Another publication authorized by the Federal Board was Bulletin No. 13, "Agricultural Education: Organization and Administration." This bulletin discussed in detail the policies governing the administration of agricultural education, presented information and suggestions which could be used in the organization and administration of agricultural schools and classes, and was revised in 1925, 1930 and 1939.

In 1933 the functions of the Federal Board for Vocational Education were transferred to the United States Department of the Interior, and during the same year the Secretary of the Interior assigned the Board's functions to the U. S. Commissioner of Education. The Board was made an advisory instead of an administrative body, its members serving without compensation, and its name was changed to the Federal Advisory Board for Vocational Education. The U. S. Office of Education was transferred to the Federal Security Agency on July 1, 1939. (39, p.504)

V. OBJECTIVES OF VOCATIONAL EDUCATION IN AGRICULTURE

An objective may be defined as a goal or aim which has a basic or fundamental value.

The American high school had as its original purpose

the preparation of boys and girls for active occupational life. This aim was set forth in the report of the Boston Committee appointed in 1820 to consider the matter of establishing such an institution, and again in the first annual report of the High School Society of New York City in 1825.

The aim for active occupational life was soon superseded by the college preparatory idea, and the American high school became largely a college preparatory institution. (36, p.4)

A change in the conception of the objective of secondary education gradually came about. The cardinal principles of secondary education were set forth in the Report of the Commission on the Reorganization of Secondary Education in 1918.

"This commission, therefore, regards the following as the main objectives of education:

(1) Health, (2) command of fundamental processes, (3) worthy home membership, (4) vocation, (5) citizenship, (6) worthy use of leisure, (7) ethical character.

"The naming of the above objectives is not intended to imply that the process of education can be divided into separated fields. This cannot be, since the pupil is indivisible. Nor is the analysis all inclusive. Nevertheless, we believe that distinguishing and naming these objectives will aid in directing efforts; and we hold that

they should constitute the principal aims in education."
(44, p.916)

In its 1918 report to Congress, the Commission on National Aid to Vocational Education defined vocational education as follows:

"The Commission recognizes at the outset that the term 'vocational education' is employed in current discussion to describe a wide variety of schools and training. For the purpose of this report, however, its use will be confined to that kind of practical education which most urgently needs encouragement, namely, that which prepares boys and girls for useful employment. In thus limiting the use of the term in its own work, the commission disclaims all intention of attempting to define the scope of vocational education as a whole, or of restricting its meaning for ordinary usage. It is clearly recognized not only that a stronger vocational element is needed in general education, but that no vocational school is worthy the name which fails to give a considerable amount of general education along with special preparation for a vocation. The purpose of restricting the term in this report is entirely that of securing clearness in the presentation of the findings and recommendations of the commission.

"For the reasons hereinafter given, the commission is strongly of the opinion that the kind of vocational education which is most needed at the present time is that

which is designed to prepare workers for the more common occupations in which the great mass of our people find useful employment. Vocational training to be most effective and thorough-going, should be restricted to persons over 14 years of age who have laid the foundation of a general education in the elementary school. Because of the kinds of workers to be reached and the character of instruction to be given, this vocational education should be of less than college grade....what we need now is practical education of secondary grade to reach the great body of our workers." (35, p.16)

In advocating the passage of the Vocational Education Bill to Congress, Senator Huddleston expressed the thoughts of the Congressmen, pertaining to the purpose of education:"Vocational education may aim to give not merely the immediate technique, skill, knowledge, and insight necessary, but also to give the general intelligence, the ideals and appreciations of civic situations, and the physical wholesomeness which will insure, as far as practicable, growth in productive capacity, satisfaction in work, and the capacity to develop and maintain good social relations with other producers, whether fellow workers, employees, employers, or consumers. Though vocational education and liberal education may have essentially different aims they mutually re-enforce each other. Any division of organized knowledge or skill may be made an end either of vocational or of

liberal study.

"The vocational education that I contend for is that which fits the youth of the land to make its way in the world, that teaches horse sense and good judgement as applied to the business of earning a living. Such training should produce better mechanics, better kept homes, better farmers, and more fruitful fields. By it the working-man will increase his output and must be secured in a larger wage and shorter hours of labor for a day's work. By it the yield of the farm will be enhanced so that the cost of living will be reduced, farm dwellings, more of the comforts of life, rural life made more attractive, and the farming population increased."¹

College Agriculture:

It is reasonable to assume that, in its early development, the teaching of agriculture was of an elementary nature as it developed in the college. The development of much of the agricultural instruction in the agricultural colleges could be classed as secondary school agriculture when judged by present day standards. College short courses, organized shortly before 1900 or shortly thereafter, had for their objective, training of students to produce, more effectively and thereby increase total agricultural production.

1. Congressional Record, Vol. 54, Part 1, 64th Congress, 2nd Session, 1916-1917, page 723.

Many colleges of agriculture began to divide their work into many narrow fields of specialization. This led to much controversy among college educators concerning objectives. One group championed narrow specialization, which placed them in a position of having the training of specialists in narrow subject matter fields as their objective, although they claimed mind training would result. Another group believed that college students should not specialize in narrow technical fields but should have their minds trained through study of the basic sciences and technology insofar as it would contribute to the attainment of that objective and no further. (27, p.23)

Dean Bailey of Cornell published a book in 1908, in which he attempted to show proper relationships between the state and the farmer. In his book there is a plea to do something more for the farmer than to aid him increase production:

"As much as we have learned, all the great fundamental problems of rational agriculture are yet unsolved, and many of them are not even explored. Great as our lack is in these directions, it is perhaps even greater in the social and co-operative lines; the great country problems are now human rather than technically agricultural." (1, p.69-70)

"The work of the agricultural institutions has been directed chiefly to increase productiveness of the land - to make the farm earn more money. The agricultural colleges,

for example, have properly laid their emphasis on this line of teaching; but in so doing they have contributed to the maintenance of agricultural isolation. To make the farm more productive must continue to be the primary effort of these and similar institutions; but the time has now come when the colleges and all public agricultural agencies must join in the effort to improve and extend the social welfare of the people who live on the land. The farmer is a member of the community." (1, p.112)

"Most of all the countryman needs intellectual horizon. He needs to have a real personal sympathy with the natural objects in his environment. He needs the nature-study outlook. Whether a man wants much or little extraneous entertainment or whether the country satisfies his ideals, depends on his attitude of mind." (1, p.173)

Dean Bailey's point of view was that the prime function of the college course is neither to make farmers, nor to train experts for the colleges and experiment stations, but to educate men and women through country life subjects. This view makes the training of the mind the central objective.

R. W. Stimson, Agent for Agricultural Education in Massachusetts, reported to the Office of Education, in 1912, the methods used in that State and the reasons why they proceeded thus. "Not general and deferred values, but values local, individual and immediate are our aim." "We must

get our general principles clearly into the minds of the boys. But we must show them, after they have mastered these general principles, that we can apply our teachings through our practical and progressive instructors to the particular conditions as they exist on the individual home farms of the boys themselves." (43, p.31)

In a text published in 1919, Stimson wrote more specifically what he expected vocational education to do for the learner; "The larger educational efforts of the instructor should be directed toward training his boys, not merely in finding the naked rules by which their project work must be governed, but also in discovering the practical experience or the laws of nature which lie back of them. That is to say, he should aim to possess his pupils of rules, not as 'rules of thumb', but as rules of reason. Good farm management depends upon good judgment, upon reasoning power, not on ability to find good rules so much as on ability to make them." (38, p.65)

The objective of this education was to teach the boy in such a way that he will learn how to think clearly and correctly, reason to correct conclusions. Objectives came more and more to center in problems how to think, training the mind or producing cultured human beings, depending upon the basic philosophy of the particular leader.

The various National vocational education acts state that the controlling purpose of vocational education shall

be to fit for useful employment, and that the agricultural education shall be of less than college grade and be designed to meet the needs of persons over fourteen years of age who have entered or are preparing to enter upon the work of the farm. Many of the State plans for the period 1917 to 1922 followed suggestions of the Federal Board for Vocational Education, and dealt largely with mechanics of those things to be offered and mechanical organizations of administrative set-ups, rather than with reasons for offering this type of education.

H. W. Kennedy made a study of vocational education in agriculture for his doctorate at Columbia University, where he reviewed State plans, and contacted teachers of vocational agriculture, teacher trainers and state supervisors. Kennedy found very little change in the statement of purposes for State plans of the 1922-27 period. Some states set elaborate rules to keep vocational phases of work separate from other subjects in high schools. The plans for 1927 to 1932 did not vary much from the outline given in publications of the Federal Board. Part of the teachers contacted felt that their programs were limited by Federal law, plans and state plans so that their class work must be limited to narrow vocational phases of the work. In most instances, they felt that a broader contribution should be made and that they could do this through the medium of the F.F.A. Among the teacher trainers there were

many who believed that programs of vocational education in agriculture should make definite contributions to attainment of aims of general education outside the vocational one. One teacher trainer would add citizenship, and give more emphasis to guidance in work with farm boys. Besides vocational efficiency, citizenship was considered important.

In his dissertation, Kennedy wrote: "There is a tendency for teacher trainers in agricultural education to take a broader view of objectives of secondary education in agriculture than the state supervisors of vocational education in agriculture. This seems to be due to the fact that state supervisors are in more direct contact with the limitations set by Federal Acts furnishing subsidies for this education. In addition state plans for 1937-42 show evidence that practice is on a scale more narrowly vocational than the thinking of state supervisors. In other words, the state programs of vocational education in agriculture are definitely circumscribed by provisions of Federal laws.

"Another thought that comes from the analysis of statements from state supervisors and state extension directors is that they are after much the same objectives. In many instances the two programs center their efforts on the same objectives. In most cases the objectives of improving living standards is mentioned as being the most important one in each program. If there is not close co-operation between the workers each will be operating a

program that parallels the others." (27, p.71)

In 1929 the Federal Board for Vocational Education met with a committee of the American Vocational Association on training objectives in vocational education in agriculture. The final report was published by the Federal Board for Vocational Education in 1931. The publication was reviewed, and suggestions were made concerning its revision, by a committee of leaders in vocational education in agriculture, appointed by the United States Office of Education and approved by the American Vocational Association. The revised edition was published in 1940.

Because vocational education in agriculture is recognized and developed as a definite part of the program of public education, a statement of the aims and objectives of this phase of vocational education must be in harmony with and support the general objectives and philosophy of the whole public school education. The bulletin of the Federal Board for Vocational Education lists four aims of education that relate to the fundamental activities of present-day life. They are:

1. To develop the individuality as completely as possible. The individual should understand his capacities, limitations, and abilities and his relationship to other individuals, home and society. He must be concerned about his vocation, business affairs, and personal development. He needs to be aided in acquiring

desirable personal qualities and characteristics. In his struggle for successful accomplishment he must cultivate all of his desirable native qualities.

2. To promote personal-group relationships with emphasis upon home and family life as fundamental to the individual's growth and to the public welfare. Individuals and groups living in a society are dependent upon the family for group relationships. The farm family is intimately connected with its means of livelihood; hence the farm home has peculiar significance for success in farming. Certain problems of the farm are frequently problems also of the home, the community, government, and other social institutions.
3. To make individuals and groups responsive to the needs of other individuals and groups, of communities, of governments, and of other desirable social agencies. Individuals in a society must be concerned with the welfare of others in the solution of their own problems. Social life is essential to the development of the individual, of the home, of vocations, and of life's interests in general. There are many social problems in a constantly changing and progressive society. Individuals and groups have great responsibility in the determination of the direction of that change.

4. To train present and prospective workers for proficiency in their respective fields. The individual must be prepared for such proficiency at work as in keeping with accepted standards of the efficiency of workers and must also be responsive to the progressive advancement of such standards. This fourth aim implies continuous systematic instruction to develop abilities that are needed by the individual for such proficiency. It makes necessary complete programs of vocational education for youth, in and out of school, and also for adults. (45, p.1-2)

Consideration must be given to these aims since they constitute fundamental areas of a well rounded education, and affect the development of the vocational worker. As the fourth aim applies specifically to the development of proficiency in farming, it constitutes the primary concern of the program of vocational education in agriculture.

The accepted aim of vocational education in agriculture is to train present and prospective farmers for proficiency in farming. "The attainment of this aim includes making a beginning and advancing in farm occupations and involves training in the production of agricultural commodities, with its constantly enlarging demand for the use of machinery and mechanical devices; training in the protection of animals and plants against pests and diseases; training in activities involved in the marketing of

farm products; and training in the procedures of farm management and agricultural finance. It involves an understanding of the problems growing out of farm production and exchange of farm products, whether on a local, State, National, or international basis.

"The attainment of this aim also includes the significant relationship of the farm to the farm home, as well as responsibility in civic and public welfare and co-operative effort for the common good. It embraces instruction in the interdependence of farming and industries closely related to farm and home, as well as the relationships of farming as a business to other industrial pursuits. It requires training in leadership and a willingness to follow constructive leadership." (45, p.1-2)

This comprehensive report presents six major objectives, and their contributory objectives. The major objectives are to develop effective ability to:

1. Make a beginning and advance in farming.
2. Produce farm commodities efficiently.
3. Market farm products advantageously.
4. Conserve soil and other natural resources.
5. Manage a farm business.
6. Maintain a favorable environment.

The development of abilities in agriculture depends upon real situations on the farm. Where the learner has a part in selection and evaluation of information, in drawing inferences, in making decisions, in formulating and executing plans, and in evaluating outcomes, he develops

these abilities. These different abilities are definitely needed by persons with farm jobs, activities, and problems. For these reasons it is important that the course of study be directly related to the supervised or directed farming programs of the individuals. In terms of abilities, the statement of the objectives in vocational education in agriculture has important bearings upon the scope and organization of the instructional program. The above report may be credited with causing many states to alter their emphasis in vocational agriculture.

In 1933 Iowa State College developed a statement of objectives for agriculture. They attempt to clarify the place of the college of agriculture in this whole picture. The study has had a marked influence on all agricultural education in Iowa, and some outside of the State. The work concludes with what we should strive for in the profession of agriculture. The objectives are not so much for the organized efforts in agricultural education, but are those for the profession. The following were accepted unanimously by the faculty: To obtain:

- A. Recognition of the interdependence of rural and urban interests.
- B. A favorable economic environment.
- C. Efficient management and production methods.
- D. Effective group action through organization.
- E. A satisfactory social environment and standard of living.

F. Adequate rural educational opportunities.
(26, p.11)

Other studies have tended to deal largely with methods rather than with objectives. The work of Davis (12) of Tennessee, was limited to a study of the means by which the vocational level of the Negro population could be raised. Hoskins (25, p.1-290) study and findings were made along narrow vocational lines in New York, and his objectives resemble what are commonly accepted as steps in the attainment of objectives. He concludes that three sets of objectives are needed: guidance, training and placement.

Kennedy concluded in his Doctor's Dissertation:
"Objectives of agricultural education should be to teach individuals at any level of learning, through study of tool subjects, basic sciences and agricultural problems, to think clearly and to come to satisfactory conclusions when faced with any of the following type problems:

Economic: Purchasing

Production

Marketing

Personal: Physical health

Mental health

Primary Group Relationships: Family relationships

Primary group Social
Relationships

Secondary Social and Civic Relationships:

Contacts of social groups with each other

Government problems, local, state and national.

"The above recommendations naturally lead to the inclusion of methods as a part of objectives and it is the author's firm belief that many of our difficulties have been due to efforts to keep these two phases of educational effort separated. They also lead to the conclusion that objectives are the same for all education excepting the choice of subject matter in the field of vocations. Thus, whatever the field in which one is working, his real problem is in the field of methods and desirable objectives mean little unless methods used are such as to accomplish the desired results." (27, p.131)

Many other studies have been made by individual colleges and by divisions within colleges, but the results are available as objectives without any of the reasons given as to why they are accepted. (27, p.15) In most cases they have been the result of committee studies, and have not necessarily been based upon research work. Much remains to be done in research and in the field of training for research. To assure that vocational agriculture will make its maximum contribution to the public welfare, it will be necessary to organize and conduct the work at all times in the light of the best information obtainable regarding objectives and methods.

Most states that have set definite objectives for their work in vocational education in agriculture on the secondary level have accepted the recommendations of the report of the Committee of the American Vocational Association, or have interpreted the statements of the Smith-Hughes Law concerning methods as being objectives.

VI. SUPERVISED FARMING

A supervised farming program is expected of every enrolled student of vocational agriculture. The Smith-Hughes law provides that a supervised practice program shall be carried for at least six months a year. Through the supervised practice program students receive training that will prepare them for the business of farming.

Historical Development:

In the early years of agricultural education in secondary schools the idea of projects on the student's home farm evolved, and received the name of "home project" in Massachusetts in 1908. The term "project" was used by R. W. Stimson, father of supervised farming, to designate a unit of farm production studied at the school and carried out by the boys at their homes under school supervision.

Supervised practice has changed considerably in type and form since the passage of the Smith-Hughes Act in 1917. For some years students usually had a program which consisted of a single enterprise, and this was frequently

referred to as a "project." Teachers of vocational agriculture soon realized that to be most effective the programs of activities conducted on the home farms must be continuous and broadened in scope. Broadened programs were evolved which provided experiences on the home farms in addition to those connected with the conventional "project." These experiences aid the student in solving many farm problems under real-life situations, acquiring many skills and the development of many desirable abilities, appreciations, and ideals.

Objectives:

One of the major objectives of vocational agriculture is to develop effective ability to make a beginning and advance in farming. Through the program of supervised farming the student has an opportunity to accumulate capital, livestock, feed, and become established in farming. To be better farmers in the community the students need to develop many operative and managerial abilities, form judgments through purposeful thinking, study and make decisions which will solve problems essential to their farming program. Such training will give them the opportunity to become better farmers. When properly conducted supervised farming programs are very beneficial to all-day students, young farmers and adult farmers as well as to the community in general.

In recent years the term "project" has become

recognized as a unit in the individual's farming program. The term "supervised farming" is more appropriate and comprehensive than the terms "home projects" and "supervised farm practice" which were used during the earlier years of vocational agriculture.

The major objectives of vocational agriculture must be kept in mind when determining the objectives and values of a student's supervised farming program. The Vocational Division of the U.S. Office of Education listed a number of these values in its Bulletin 225, "Directing Vocational Agriculture Day-School Students in Developing Their Farming Programs." Some of the more important objectives and values of programs in supervised farming are:

1. To provide for the development of abilities needed for proficiency in farming of the type in which the boy is likely to engage, through a broad supervised farming program started early in the school year and involving the use of a large number of approved practices.
2. To provide an avenue to satisfactory progressive establishment in farming.
3. To develop abilities to earn money, save and use wisely.
4. To provide desirable motivation to the student and develop interest in farming.
5. To develop originality, pride of ownership, initiative, self-confidence and managerial responsibility including farm mechanics activities.

6. To provide opportunity to contribute to desirable farm-family living.
7. To develop desirable habit formations, understandings, appreciations, ideals, abilities and attitudes through challenging true-to-life situations.
8. To provide opportunity for the learner to plan his work, make budgets, use financial agreements, review information, form judgments, evaluate, make decisions, solve problems, put his plans into action and keep accurate records.
9. To develop the ability to expand the farming program each year.
10. To provide opportunity to contribute to the improvement of the home-farm business.
11. To provide desirable relationships with the parent and son which may result in father-son partnerships.
12. To contribute to improvement of farming in the community.
13. To contribute to desirable relationships between the school, the home and the community.
14. To develop teacher-parent-son understanding and co-operative relationships.
15. To develop opportunity for functionalized instruction based on individual needs, interests and abilities of students, thus making the farming programs the core of the instruction.

16. To provide a basis for evaluating the effectiveness of the instruction.
17. To develop abilities in co-operation. (8, p.279-280)

Indeed, carefully selected and planned programs of supervised farming provide a rich source of experiences for persons who are seeking to become proficient in farming:

Use as Basis for Instruction:

Two of the most significant developments in the evolution of vocational education in agriculture have been the broadened concept of supervised farming, which includes many experiences in the type of farming in which the individual is likely to engage, and the interrelating of instruction with supervised farming. (13, p.49)

Today teachers of vocational agriculture realize that supervised farming programs, related information and activities should be used as a basis for instruction. Previous to 1917 the courses of study were commonly organized around textbooks. A course can become academic in nature if it is based on subject matter which will not be used, and consequently will be of little practical value and motivation to the students. The interest of students lies in the development of needed skills and abilities through experiences, studying, evaluating and making decisions, which will help them in solving true-to-life problems which they can and will use in the immediate future in connection with their farming programs.

As supervised farming programs were selected and built up more and more around individual boys, and farms, as a means of advancement into full-time farming, the old lines and divisions between course units and instruction from year to year began to fade out. However, there was a tendency among some instructors to persist in the conventional and traditional subject matter classification, and to divide courses and class instruction by years, in a way that was not closely in line with the more flexible long-time continuation project programs that were being developed. (21, p.1-10)

In the traditional type of course organization each year is devoted to a different phase of instruction. For example, one year may be devoted to crops and soils, another year to livestock, one year to farm management, and a fourth year to marketing. The segregation of farm enterprises into different years was typical in 1917. This kind of course organization was called a vertical organization.

With continuation projects, and long-time programs of supervised farm practice becoming more common, there was an increasing difficulty in maintaining a close relationship between supervised farm practice and class instruction. A student with a dairy project extending over four years would get dairy instruction during only one year, under the vertical organization, whereas he would have need for instruction over the entire four year period, particularly

at the times when it could help him make decisions and solve specific problems arising in connection with his supervised farm practice. A plan was adopted which was known as the horizontal or cross-section organization. This type of organization provides for the distribution of the jobs or problems in an enterprise throughout two or more years of instruction. "Some pioneer work on this new method of organization was done in New Hampshire, Kentucky, Minnesota, Louisiana, Virginia, and Oregon." (39, p.614)

Besides meeting the many needs of individual students, the long-time supervised farming programs of the students include the major farm enterprises in the community. There is a need for instruction on some jobs and problems in these enterprises each year throughout his all-day instruction, and even after he is established in farming.

As stated by G. P. Deyoe (14, p.64-65) the cross-sectional plan provides for flexibility in meeting students needs and interest, as these are associated with the program of supervised farming and other activities in vocational agriculture. It permits a gradation and distribution of course materials in keeping with successive levels of understanding as each boy gains maturity and experience. It makes possible the organization of activities which approximates a farm-as-a-whole approach to the study of agriculture from the start. Presumably, by

learning to farm the way that proficient farmers farm, the boy gains an integrated understanding of the complex inter-relationships of the activities in a well-planned farm business.

In 1932 and 1933, the Teacher Training Department at Oregon State College prepared suggested cross-section course outlines illustrating methods of distributing and integrating course materials and student activities over the years, in relating to continuing and expanding long-time project programs. These outlines took into account the immediate and progressive needs of boys in project enterprises, the maturity and experience of students, and the difficulty of the problems. It was discovered that considerable undesirable duplication and repetition of instruction from year to year was resulting in the field from the cross-section type of course organization and teaching. This was partly due to the fact that some of the teachers were making the distribution too much on the enterprise information basis, rather than on the basis of developing problems and student activities as they naturally grew out of the continuing farm and project programs from year to year. Consequently, attention more recently has been given to methods of distributing instruction among enterprises and other course units by years on the basis of farm and project problems and activities, thus avoiding undesirable repetition of information.

A modified cross-sectional plan is being used by some teachers. Under this organization, a phase of instruction such as livestock or field crops is used as a central emphasis, along with selected units or jobs or problems from other phases of instruction needed in the current year. There are varied reasons for the use of this plan. Teachers who have used the traditional plan of course organization may have difficulty in using a strictly cross-sectional procedure. Many teachers believe that careful planning of teaching units of instruction is important, and that more effective planning can be done in the case of class or group instruction, than were a large amount of purely individualized instruction is used. "There are many individual problems which are common to a group of students which under proper course organization and teaching can be effectively taught to the group as a whole and still meet individual needs." (8, p.152) The inexperienced teacher often finds the strict cross-sectional plan difficult to follow at first, and they are able to do a more effective job through the modified plan.

"Vocational agricultural education should lead to establishment in farming. The young man may develop sufficient ability and skill to become established as a good hired man on a farm. He may accumulate enough capital from his productive enterprises to become established as a renter or as a partner in a farm business. Through further

training he may improve his status so that he may take additional steps toward establishment on a farm which finally he may own. Farm practice is an important part of the total instructional program in vocational agriculture. Supervised farm practice is a means of helping members of classes of vocational agriculture to develop skills and abilities for farming beyond those which they already possess. Such skills and abilities should be those essential for meeting the problems of the student on his home farm, or on the farm where he is to receive training. Supervised farm practice for the young man either in school or out of school, should help him to accumulate capital for establishment in farming and should prepare him to operate and manage a farm." (31, p.3)

Types of Projects:

To develop instruction around the student's farming program it is essential that the projects be selected during the first part of the school year. The students should develop an understanding of the objectives of vocational agriculture and the broad program of supervised farming soon after the opening of school. The planning of long-time farming programs should begin following this basic instruction. In this way the student can make a thorough study of each job or problem and determine what approved practices he should use in carrying out each project or supplementary farm practice just prior to performing the

job on the farm. "To learn what to do, when to do it, and how to do it correctly." (8, p.339)

For the most worth-while and practical supervised farming program, the student should diversify his activities in line with the farming types and enterprises in the community and his specific interest and needs. Although only one project is needed to fulfill requirements as far as the National Vocational Acts are concerned, Educators in vocational education in agriculture realize that comprehensive programs are more practical and beneficial to the student. A comprehensive program will include production projects, improvement projects, supplementary farm practices, and placement for farm experience.

Production Projects:

Production projects, formerly called "productive enterprise projects" or "ownership projects," is a business venture for experience and profit involving a series of farm jobs usually covering a period of time represented by a production cycle of a farm enterprise. Such projects are owned in full or in part by the boy and is controlled by him. He receives all the net income if he owns it in full. The projects may continue for one cycle, or may continue over a period of years and thereby become a long-time project.

Production projects are sometimes classified into "major projects," "minor projects," or "contributory

projects." A major project is a production project which normally yields the major income in a student's farming program. This is one of the more important types of projects in the farming program. A minor project is a production project which ordinarily provides a relatively small portion of this income, but which may be fitted into the program so as to utilize and balance labor more effectively and yield a quick cash return on a small investment. A contributory project is a production project which provides products such as feed or other products utilized for the major or minor projects.

Since the major production projects are the basis of the student's farming program, it is very important that careful selection be given to such projects. In some instances the student may find it necessary to start with minor or contributory projects. However, he should get a major project started as soon as possible.

Improvement Projects:

Improvement projects involve a series of related jobs designed to improve the appearance and real estate value of the farm and the efficiency of the farm business as a whole, and which contribute to the comfort or convenience of the farm family. The student has no ownership in an improvement project, and it usually provides no direct income to him, but it furnishes a basis for vitalized instruction by learning through experience. Improvement

projects may result in more income to the farm family since they may consist of activities which improve several enterprises, such as keeping and using farm accounts, or establishing a balanced fertility program for the farm. Improvement projects in dairying have become popular in many states due to the importance of this enterprise, and also because many day students select dairy heifers as production projects which require two or more years before they become productive. An improvement project is made up of a series of related activities may be similar to those in a productive project. If the student had some ownership in them, a number of these would become production projects.

Supplementary Projects:

Supplementary farm practices are small farm jobs undertaken by the student for additional experience, skill and efficiency lying outside of those jobs already included in the student's production or improvement projects. They provide for the development of individual ability to do numerous specific approved practices which would not otherwise be included in the boy's supervised farming program. A supplementary farm practice usually consists of a single job, whereas an improvement project consists of several closely related jobs or activities. An improvement project may require several weeks or even a year or more, whereas a supplementary farm practice is completed in a relatively short time. As mentioned in Vocational Bulletin 225 of the

United States Office of Education "Routine chores or any other job that a student has done before or that he does without mastering a new practice is not a supplementary farm practice.

Placement for Farm Experience:

Placement for farm experience refers to locating on a farm a student who is lacking in experience. It is intended primarily for students not living on farms but interested in securing farm experience and developing farming programs, and for students whose home farm facilities are inadequate from the standpoint of type or opportunity. The instructor should make sure that suitable facilities and opportunities are available for the student to develop the desired abilities. He must also see that co-operative relationships are established between the employer, the parents and the student and a definite understanding as to the agreement for wages, nature of work, training and opportunities for developing a comprehensive program in supervised farming.

Group Projects:

In recent years there has been an increased interest in group projects. Group projects should be considered as an important type of supervised farming, in addition to the individual farming programs. In organizing group projects certain relationships can be developed to advantage with the local chapter of Future Farmers of America. For

example, each local chapter in its yearly program of work usually includes activities in co-operation, community service, and earning money. Some groups purchase feeds and fertilizers for individual projects, or form co-operatives. The project should be sufficiently broad to be challenging, but it should not be so large as to become burdensome and require an undue amount of labor for either students or teachers. Through group projects, observations, demonstrations, and various other activities related to the project can be readily arranged for class groups. In certain cases, group projects may demonstrate the value of enterprises new to a given region. It is often a means whereby the people in the community can become more familiar with the work in vocational agriculture. A number of F.F.A. Chapters have sponsored chapter projects in livestock, and thus furnish opportunity for the development of desirable breeding stock for the members and for the community.

Long-time Projects:

Continuation projects, or long-time projects, are planned to continue over a period of years. Through long-time projects significant contributions are established in farming through the accumulation of money, foundation animals, and other types of assets. Besides having learned a great deal through experience, the student is well on his way toward establishment in farming. Not only is the formulation of plans for the school years ahead desirable,

but some long-time planning should extend into the post-school period. Significant factors which should be suggestive to teachers in their efforts to guide boys in the selection of long-time programs of supervised farming are the boy's interest in vocational agriculture, co-operation by parents, the interest and influence of the teacher, the influence of the F.F.A., the fact that the father owns the farm, the opportunity to make money, the influence of parents, and home-farm conditions. (2, p.94-98)

Long-time farming programs usually begin on a small scale and expand each year through the continuation of certain enterprises, and the addition of new projects and supplementary farm practices. Such programs must be sufficiently flexible to provide for needed changes and additions as the program continues.

Any long-time supervised farming program should provide for satisfactory business arrangements, including those with parents, financial participation and complete management of the projects by the student. It is important that the proper analysis and interpretation of the records and results be determined for decisions, adjustments, and the future good of the program. To assure success in the mechanical phases of the farming programs adequate experience in farm mechanic activities is needed.

The Teacher and His Responsibility:

To a large degree, the responsibility for the success

or failure of the supervised farming program depends on the teacher. He has several steps or principles to follow in developing comprehensive programs. The first basic principle for him to follow is to formulate and write out the objectives and goals he hopes the program to achieve. These objectives should be stated in terms of the development of student abilities, and the ultimate goals of establishment in farming. Incorporated in the objectives should be the approved practices to be stressed and efficiency factors to be achieved. These should be determined as a result of surveys, home visits, and student conferences. The teacher must develop understandings with all persons concerned with the student's program, assist parents and students in selecting suitable projects and activities, planning procedures to follow, approve practices to adopt and carefully supervise the programs. "It is the instructor's responsibility to counsel with students desiring to enroll in vocational agriculture. He should give the students as much guidance as possible before they enroll in the course to make sure that the instruction will best fit their needs and that suitable facilities and opportunities can be provided for satisfactory supervised farming programs."

(8, p.309) The teacher should have an understanding of how to create interest, get students started with satisfactory programs, and to supervise them effectively. For the teacher who does not have these understandings most states

offer opportunities for professional improvement through in-service training, conferences, field trips, reading, workshops, and graduate courses offered during the school year, or during short summer sessions.

Selection of a Good-farming Program:

The organization of a good program of supervised study will depend upon the understanding and co-operation of students, parents, and the teacher. The students in a beginning class in vocational agriculture should become acquainted with the plan of "growing into farming," and have some conception of what comprises a broad program.

The interest of the students may be enhanced by various methods of motivation. Discussion of what they need to be able to do in becoming farmers is an interest-arousing technique. Other methods are emphasizing the possibilities of making some money through the development of a good program, discussing ways a well selected program will aid in the establishment in farming, indicating possible ways the program will contribute to the improvement of the home-farm business, and to improved living on the farm, and discussing the various types of projects. By such methods the students come to realize that supervised farming provides an opportunity for them to achieve objectives of importance.

Frequently it is a challenge to the student, and his parents to have certain standards which will serve as goals.

The local chapter of F.F.A. may set goals in its program of work. For example, one chapter set as its first goal in the dairy section to have one hundred percent of enterprise herds average 350 pounds Butterfat. The second goal was to have one hundred percent of the animals tested for Tuberculosis and Bang's Disease. The third and fourth goals respectively, were: establish two more dairy teams of record stock, and obtain membership in local artificial insemination association. A minimum number of projects per boy may also be set as a goal by a F.F.A. chapter. The goals set should be high enough to be challenging, but not so high as to be discouraging.

Use of Former Student Records:

Exceedingly valuable to the beginning student are the records of the supervised farming programs of former students. By analyzing accurate records the student will have revealed to him such important items as size of project, kind of project, goals reached, production, labor used, seed used, expenses, receipts, rent, project agreement, method of financing, and approved practices followed.

Use of Home-farm Survey:

To intelligently select activities for a program of supervised farming the student should make a survey and analyze carefully the needs and facilities of his home farm. This survey may be comprehensive covering all activities or it may be divided into several unit surveys covering

essential items on the farm, farm mechanics activities, and the various farm enterprises with their activities. By carefully analyzing this information, the student, with co-operation of his parents and teacher, should be able to derive a program of supervised farming which is in keeping with the total situation that exists.

Parental Co-operation:

Parental co-operation is important in the selection of programs of supervised farming. Both the mother and father should be consulted in discussions which involve the selection of supervised farming. It is desirable that the teacher visit the home of a student prior to his initial enrollment in vocational agriculture, followed by visits at intervals during the period of selecting activities of supervised farming. This is an important time for the teacher to become acquainted with the parents, and to familiarize them with various aspects of vocational agriculture. A number of activities can be selected as a result of the discussion with the parents and the student relative to his needs, interests, and opportunities.

Factors of Consideration:

Careful consideration must be given to the selection of projects, particularly the major production projects. The kind of major projects which will be most desirable to start with should be revealed through the student's home survey, and his review of the records of former students'

farming programs, and success factors in production. The major project should be started as soon as possible. Besides selecting improvement and supplementary practices, the student should establish a felt need for many farm mechanics activities. Because of the great advancements in farm machinery in recent years there is a need for increased emphasis in farm mechanics.

In his "Handbook on Teaching Vocational Agriculture," G. C. Cook states; "There are a number of factors to consider in choosing a type of farming and the different activities to include in the student's supervised farming program:

1. Personal preferences - The student's likes and dislikes.
2. The types of farming in the community and on the home farm.
3. Relative importance of enterprises in the community and the home farm.
4. The ability and previous experience of the student.
5. The farm facilities including equipment.
6. Local trends in farming.
7. Available markets.
8. The possibilities for improvement of the farm and the farm home.
9. Opportunities for ownership and managerial responsibilities.
10. The parents' willingness to co-operate.
11. The probable financial return.
12. The ultimate plans of the student.
13. The opportunity for developing father-son partnership agreements." (8, p.338)

Budgeting:

A supervised farming program is a business venture for profit, and budgeting and arranging finances are important, aspects in the planning. The student should make

a careful estimate of receipts and expenses to determine the probable outcome before making a final selection of a production project. Previous projects of a similar type and farm account summaries may be used as a basis for making the estimates.

An accurate and complete budget forms the basis of a sound business agreement. It gives the boy a complete overview of the undertaking, including its relation to other farming activities; Essential data for procuring sound credit is provided. The budget provides standards against which the teacher and student may check the project as it progresses. It supplies data to be used in making a calendar of activities on the farming program. Budgeting makes use of data from farm records in ways which contribute to the improvement of the farm business. (7, p.68-69)

It is desirable for the student to estimate rather carefully the total costs, the actual cash needed, and the income expected. Most states have record books for supervised farming, and they usually include forms for use in making budgets. The following type of budget was devised by the Department of Agricultural Education at Oregon State College:

POULTRY PROJECT BUDGET ESTIMATE
Egg Production

Production	Estimated	Actual
1. Average no. of hens _____ Average Value _____ Total Value _____		
2. Average no. eggs per hen _____		
3. Total no. doz. eggs produced _____		
----- Receipts of Credit -----		
4. Average price per doz. eggs sold _____ used at home _____		
5. No. doz. eggs sold _____ used at home _____		
6. Value of eggs sold _____ used at home _____ total _____		
7. No. of hens sold _____ used at home _____ price _____ value _____		
8. Miscellaneous credits _____ price _____ value _____ price _____ value _____ total _____		
9. Increase of closing inventory over opening inventory _____		
10. Total receipts or credits _____		
----- Expense of Debits -----		
11. Lbs. grain purchased _____ kind _____ price _____ value _____		
12. Lbs. grain farm grown _____ kind _____ price _____ value _____		
13. Lbs. mash purchased _____ kind _____ price _____ value _____		
14. Lbs. mash farm grown _____ kind _____ price _____ value _____		
15. Milk or buttermilk used at home. amount _____ price _____ value _____		
16. Milk or buttermilk purchased. amount _____ price _____ value _____		
17. Green feed lbs. _____ kind _____ price _____ value _____		
18. Shell grit etc. lbs. _____ kind _____ value _____		
19. Total feed cost _____		
20. Litter kind _____ amount _____ price _____ value _____		
21. Spray materials, disinfectants, medicine, kind _____ amount _____ price _____ value _____		
22. Crates, fillers, amount _____ price _____ value _____		
23. Interest on investment - amount _____ interest _____ value _____		
24. Rent, items on which rent is paid (bldg. land, etc.) _____ amount _____ value _____		
25. Transportation, express truck, etc. _____		
26. Other Misc. charges - kind _____ value _____		
27. Hrs. self labor _____ rate _____ value _____		
28. Hrs. other labor _____ rate _____ value _____		
29. Hrs. horse labor _____ rate _____ value _____		
30. Decrease inventory _____		
31. Total gross cost (sum of items 11 to 30) _____		

32. Total net cost for eggs (item 31 minus deductible credits) _____		
33. Net cost per doz. eggs (item 32 divided by no. 3) _____		
34. Feed cost per doz. eggs (feed costs, item 19 divided by item 3) _____		
35. Man labor costs per doz. eggs (sum of items 27,28 divided by item no. 3) _____		
36. No. hrs. man labor per doz. eggs (item 27 + 28 divided by 3) _____		
37. Total net profit (item 10 minus item 31) _____		
38. Pupil labor income (item 37 plus item 27) _____		
39. Pupil's actual labor income per hr. (item 38 divided by hrs. self labor) _____		

Financing the Program:

After the budget has been carefully prepared by the student it should be checked by the teacher. A meeting should then be held by the parents, son, and teacher to discuss the methods of financing the program. Frequently memoranda of financial agreements between father and son do not clearly define the responsibilities of each party for sharing the expenses and returns. Misconceptions of the business of farming may develop if it is not conducted on a business basis. If the procedures for obtaining financial assistance are through parent co-operation they should be businesslike and typical of those the boy needs to follow when negotiating a loan with a bank or a person outside the family. Merely securing the money, credit, or other facilities necessary to finance a project is not the big consideration. From the educational standpoint, it is of more importance to provide the boy with every opportunity for assuming typical financing responsibilities and to use project-financing as a means of developing those abilities he will need to possess later for successful financing of the farm business as a whole.

If the boy is to secure worth-while training in financing projects with parent co-operating, the following steps and teaching procedure are suggested by Professor H. H. Gibson, Oregon State College:

Step 1. Careful analysis of the proposed project enterprise is made.

Step 2. A complete project budget is prepared by the boy.

In connection with project-financing, the project budget helps in the following ways:

1. To show the boy the kinds and amounts of things required to carry out a proposed project program.
2. To determine when and in what amounts cash will be needed so that financial arrangements may be made accordingly.
3. To show how feed crops may be raised, equipment made, etc., as a means of reducing cash costs.
4. To make possible the comparison of enterprises with reference to probable returns and costs - cash and non-cash.
5. To determine when and in what amounts the loan can be repaid.
6. To determine whether borrowing money for a proposed project program is likely to prove a sound investment.
7. To make possible the determination of fair and businesslike financial or partnership agreements between the boy and parents, by giving both a basis for deciding how each may share in the division of costs and receipts.

8. To stimulate interest in keeping records as a means of checking on costs and other outcomes which measure the success of the project.
9. To stimulate interest in constant observation and checking of project practices with reference to their possible effects on costs and receipts.

Step 3. The boy presents budget to class or F.F.A. Chapter members for their consideration and approval.

This step would be particularly necessary where it is the practice for the F.F.A. chapter or project loan committee to approve and make loans to F.F.A. members. At this time class members, as well as the individual boy who makes his budget report, will discover many problems which have a bearing on project practices as well as project financing. Budget-making is one of the best approaches to a discovery and analysis of jobs and problems that must be considered in project-planning.

Step 4. The instructor, in conference with the boy, corrects and approves the budget.

Step 5. The boy presents the budget to his parents for their approval and their consideration of what financial assistance they may be able to give.

Step 6. The instructor, the boy, and parents, together in conference, finally agree upon the financial

arrangements to be made -- what size of loan, if any, is needed, and whether it shall be obtained from the parents, local banks, or other sources.

There is no device comparable to the budget for bringing the boy, the parents, and the instructor together in a final determination of the type, size and scope of a project program to be undertaken, and the financial arrangements that need to be made. Neither the instructor nor the boy should consider asking the parents to approve and finance a project program without first presenting to them a conservative and complete estimate of probable costs and returns.

When a project program is approved and financed under these conditions, all parties to the agreement know what it is about. Parents are ready to approve the project practices which the boy decides to adopt. The way is paved for the instructor to do effective project supervision, and, most important of all, the boy gets worthwhile training in farm-financing.

Step 7. The boy draws up a project financial agreement which is signed by both him and his dad. If a loan is obtained from the parents, the boy should sign a note secured by a chattel mortgage on his project and other assets.

Some instructors have used local attorneys who are particularly interested in the local F.F.A. program to

discuss the different types of contracts and mortgages and to draw up contracts, semi-legal in form, that would hold in a court of law. The parents understand that the purpose is not to bind either them or the boy through a legal contract to an agreement in which their word would not hold, but rather to give the boy a business experience he would not otherwise get in the usual parent and son forms of project agreements.

Step 8. Instructor and boy check up on costs and income, through use of project records, as the project progresses; and see that loans are paid according to financial agreement.

A pertinent question to ask at this place is, - should there not be a re-evaluation of supervised practice programs, courses of study, and teaching procedures with reference to the contributions they are making to the attainment of this major objective: namely, ability to finance a farm business? As project programs increase in size and scope, and as they are looked upon more and more as a means of aiding the boy to get a start in the farming business on his own, project financing becomes an increasingly important problem and responsibility for the individual boy. (20, p.128-129)

Students should be given the opportunity to perform the various transactions involved in securing and repaying loans. Depending upon parents for all forms of needed

financial assistance often results in the selection of projects undesirable in type and inferior in quality. The procedures already recommended for negotiating a loan with parents, should hold in the main for other types of loans.

G. C. Cook lists some of the numerous methods that have been successfully used for financing farming programs:

1. Securing funds from parents.
2. Securing loans from local bankers.
3. Securing funds from finance corporations.
4. Securing credit from livestock breeders. Frequently breeders will sell animals to students and give credit until some of the offspring are sold, or they may take a percentage of offspring as pay.
5. Securing a loan through the local F.F.A. or N.F.A. chapter (The chapter may have a revolving fund for this purpose).
6. Securing an animal from the local F.F.A. or N.F.A. chapter on a chain basis. This is to return in kind livestock or seed.
7. Securing guaranteed loans through the Future Farmers of America Foundation incorporated.
8. Securing funds from local service clubs.
9. Carrying on the program in partnership with someone else, paying the partner when the product is sold.
10. Securing funds from friends.
11. Securing funds by working for local people.
12. Pooling of resources by several students who develop a group project.
13. Borrowing from the Production Credit Association.
(8, p. 342-343)

Business Agreements:

Once the budget is developed, it should serve as a basis for arriving at a business agreement which is sound and reasonable for the boy and the parents. Business agreements ought to be encouraged as they are desirable as a business undertaking. Many states provide forms for business agreements in the project record books. There are a number of purposes for such agreements.

Misunderstandings may be avoided, and all parties will know what the agreement includes and what is expected of them. They show the division of responsibility and return. They are business-like and help to develop business procedures, and when properly prepared, they help insure a successful program.

Business agreements differ, but they should contain such items as: kind and size of projects, the period concerned, rent agreements, what father and son are to furnish, agree to do, and to receive, and what the teacher agrees to do, finishing with the signature of the student, the father, and the teacher.

Developing the Programs of Supervised Farming:

Once the farming program is selected the student must know where he is going and how he expects to get there. Some time should be spent in classroom discussions pertaining to the objectives which the students hope to accomplish. After the students have formulated satisfactory objectives they will need to take part in setting up the methods for achieving these objectives.

"The objectives to formulate will depend upon the development of effective abilities needed by the student. Two kinds of objectives formulated are: (1) for the long-time program in supervised farming, and (2) the objectives for the individual projects."

Objectives of Long-Time Farming Program:

The primary aim or objective for the long-time farming program should be satisfactory establishment in farming.

Some contributory objectives for the long-time program are:

1. To make satisfactory profit.
2. To adopt and put into effect a large number of approved practices.
3. To develop effective abilities which are needed for success in farming and family living.
4. To keep neat, accurate and complete records.
5. To contribute to the improvement of the farm business, the real estate value of the farm and to a more comfortable farm-family living.
6. To take pride in doing a good job which will demand the respect of the parents and the community.
7. To establish a home-farm shop.
8. To acquire essential farm machinery, labor saving devices and other needed equipment.
9. To accumulate sufficient good breeding foundation stock.
10. To accumulate sufficient capital to assist the student in becoming established in farming.

Objectives of Individual Projects:

"Some objectives to formulate for individual projects may be stated as follows:

1. To develop and establish an outstanding dairy herd on my own farm.
2. To develop an improved breeding program.
3. To get a start with a purebred herd of swine.
4. To install a pressure water system in the home.
5. To develop a home beautification project.
6. To develop and establish an outstanding flock of purebred sheep.
7. To place all farm machinery in satisfactory working condition.
8. To use a large number of approved practices.
9. To keep complete and accurate records.
10. To develop a swine sanitation program on the home farm.
11. To make a satisfactory profit.
12. To use adopted hybrid seed corn.
13. To gain practical experience which will help me be a successful farmer.
14. To control diseases and parasites.

The above are merely samples of objectives which the student may formulate. The ones he will want to develop will depend on the conditions and facilities available, the kind of projects he has, and what he desires to achieve." (8, p. 353-354)

In preparing a program of work the agriculture instructor has a number of jobs to do before school opens. The following are suggested jobs in order of sequence before school begins.

1. Recruiting students.
2. Visiting and guiding boys in selection of projects.
3. Making surveys.
4. Locating and securing teaching materials and situations.
5. Making project job analyses for important enterprises.
6. Conducting community and project exhibits at fairs.
7. Arranging and equipping agriculture and shop rooms.
 - (1) Ordering equipment.
8. Selecting reference, text or library materials.
9. Filing bulletin and other materials.
10. Getting acquainted with community.
 - (1) People -- assets.
 - (2) Community organizations.
11. Making a course of study.
 - (1) What types of farming. Farm enterprise and other course units will be included, relative time to each, how distributed by years over the years, seasonal sequence etc.?
 - (2) How much time to class work; to individual work?
12. Teaching process itself.
 - (1) Planning each unit or job.
 - (2) Selecting and using methods appropriate to or suited to each unit or problem in teaching.
13. Supervising projects -- number and frequency of visits.
14. Organizing and conducting Future Farmer chapter.
15. Planning evening school work.
16. Publicity -- writing.

Found in the appendix of this thesis are outline forms for the organization of an agriculture instructor's time as suggested by the Department of Agricultural

Education, at Oregon State College.

VII. FARM MECHANICS

The Importance of Farm Mechanics:

Instruction in farm mechanics is an important part of the program in supervised farming. Most states recognize the importance of this work and allot sufficient time for it in the agricultural program. Many student abilities are developed which are essential for success in farming and farm-family living. Through farm mechanics instruction the student is trained in the skills that are necessary to do the needed farm mechanics jobs on the farm. The student is given an opportunity to do purposeful thinking as well as the use of his hands. After the job is done it helps the student realize that it is practical and he has accomplished something. Students like this phase of instruction and so it is one of the best ways of motivating and stimulating the student's interest. It provides instruction based on individual needs of the boy, shows immediate results, and adds variety to the program. Its practical value can be seen by farmers, and it affords a wonderful opportunity to advertise the work of the department, and sell the program to various persons in the community.

Students in farm shop find themselves in circumstances which give them a great deal of freedom that they usually do not enjoy in academic classes. The boy is on his own.

Shop work is of a nature which approaches life conditions as they will be after the student finishes school.

Determining Course of Instruction:

The details of instruction should vary with the needs, interests, and abilities of the students. The program of farm mechanics must be correlated with the rest of the activities in the department and with each boy's supervised farming program. To be sure of the student's needs the instructor has to make a survey of the boy's home situations, and the needs of his supervised program. "Since the teacher is primarily concerned with the boys in his department, it would only be necessary for each boy in his classes to fill out a form, rather than to try to survey all of the farms in the school area." (30, p.187) The instructor should know the jobs the boys should find most valuable as a result of definite farm needs, and should lead them to a recognition of these needs and a desire to meet them. "It is necessary also for the instructor to recognize the jobs to be accomplished and, through discussions, conferences, field trips, reference readings, and other means, to lead the boys to a discovery of the important jobs on their farms." (5, p.53)

Areas of Instruction:

"The farm mechanics program includes all the unspecialized mechanical activities that a progressive farmer should perform on his home farm with the kinds of tools and equipment he will have accessible." (8, p.411) In 1946,

the Pacific Conference of Agricultural Engineering and Vocational Agriculture Educators accepted the recommendations of what should be included in the farm mechanics program made by the sub-committee on Agricultural Teacher Training of the American Society of Agricultural Engineers in Collaboration with an Advisory Group of Agricultural Education Specialists. The recommended six areas of instruction are:

1. Farm shop work.
2. Farm power and machinery.
3. Farm buildings and conveniences.
4. Soil and water management.
5. Rural electrification.
6. Processing of farm products. (46)

G. C. Cook of Michigan State College carefully reviewed these recommendations and prepared the following outline which is very similar to the suggestions made by these committees:

FARM SHOP WORK

Woodwork and Farm Carpentry

1. Providing and equipping the home-farm shop.
2. Classifying, selecting, and caring for lumber.
3. Selecting and using nails, screws, bolts and hinges.
4. Classifying, using, and caring for woodworking tools.
5. Fitting shop tools.
6. Figuring bills of material.
7. Sketching and reading blue prints.
8. Cutting rafters.
9. Making woodworking and farm carpentry projects.

Painting and Glazing

1. Painting.
2. Glazing.

Rope Work

1. Selecting and caring for rope.
2. Using and handling rope.
3. Splicing rope, making knots and hitches.

Harness Work

1. Repairing and caring for harness.

Sheet Metal Work

1. Selecting and using soldering equipment.
2. Soldering.

Farm Forge Work

1. Preparing for forge work.
2. Working hot and cold metal.

Welding

1. Welding by the oxyacetylene process.
2. Welding with an electric arc welder.

FARM POWER AND MACHINERY

Transmission of Power

1. Selecting, using and repairing farm belts.
2. Installing line shafts, pulleys, and belts.

Farm Motors

1. Understanding fundamental principles of gas engines.
2. Maintaining carburetors, cooling, and ignition systems.
3. Maintaining the farm motor.

Truck and Tractors

1. Selecting, using, and caring for farm trucks.
2. Selecting, using, and caring for tractors.

Farm Machinery

1. Selecting farm machinery
2. Using and maintaining farm machinery.
3. Constructing labor saving equipment.

FARM BUILDING AND CONVENIENCES

Concrete Work

1. Understanding the uses and composition of concrete.
2. Estimating quantities and proportions of concrete mixtures.
3. Mixing, pouring and curing concrete.

Farm Buildings

1. Constructing and repairing farm buildings.

Farm Home Conveniences

1. Selecting and using plumbing equipment.
2. Installing and repairing plumbing fixtures.
3. Establishing farm water supply systems.
4. Establishing farm sewage disposal systems.
5. Heating the farm home.

RURAL ELECTRIFICATION

1. Understanding the sources of electricity, terms and materials.
2. Wiring the farmstead and maintenance of equipment.

SOIL AND WATER MANAGEMENT

1. Terracing to control soil erosion.
2. Using contour farming and strip cropping practices.
3. Providing farm drainage and irrigation.

PROCESSING FARM PRODUCTS

1. Providing and equipping a school community cannery.
2. Providing smoke houses.
3. Providing hog slaughtering equipment. (S, p.412-414)

Some instructors may think that most of their shop work should deal with the construction of new projects. They may not look for repair work and do not properly stress it. In several states at least fifty per cent of the farm mechanics activities of the farmer is repair work. Every student should develop an appreciation of the economy in

repair jobs and should be encouraged to do repair work as long as it has educational value and is economically profitable. Painting repair jobs to make them more attractive probably would make the students more interested in this type of work.

Organizing the Content of the Course:

It is suggested that jobs be distributed over a four-year period since the program in most states extends over a four-year period. Some jobs will be repeated from time to time. Not all students can become skillful in all the jobs offered to them due to physical or mental limitations. Offered a wide variety of jobs, the average student will become proficient in a satisfactory number of them. "Mastery of a relatively few significant jobs is more desirable than mediocre performance and limited understanding of a large number of equally important jobs." The later years spent in farm-shop should consist of a measure of natural repetition of earlier jobs and advancement of relatively greater difficulty and wider application. Although teachers of vocational agriculture do not make first-class mechanics out of the students they usually have sufficient time to buy a solid foundation of fundamental mechanical skills and abilities, which will enable the student to maintain and repair his farm machinery and equipment in a satisfactory manner. Instruction should be functional to be effective.

(30, p.72)

Keeping in mind the needs and abilities of the students and the degree of difficulty in performing the different jobs, the teacher should decide on which units to teach each year, and allot a suggested amount of time and place to each unit. Farm mechanics should be integrated throughout the entire four year program. Each phase should have its emphasis determined by the type of farming, community, needs, size of the shop and the equipment available, the training of the teacher, and the enrollment.

It has been found through experience that in the making of plans for instruction there should be a favorable amount of flexibility. In developing their programs of supervised farming the teacher should consider the anticipated needs of students, and develop many suggestions in the form of source units. Such units include possible objectives, problems, activities, procedures, and resources for a significant job or problem area. In this manner the teacher formulates suggestive plans of procedure which will include more ideas than will actually be utilized.

Evaluating the Farm Mechanics Program:

An essential part of the teaching program is the appraisal and evaluation of the student's achievement in farm mechanics. "Effective evaluation furnishes the basis (1) for the student to determine his progress in achieving the objectives of farm shop, (2) for the instructor to determine the effectiveness of his instruction, and to

modify his instructional procedures, and (3) for the instructor to formulate grades for school records."

(5, p.498)

The final grade on a completed project is but one aspect of evaluating the individual. Other aspects which should receive attention are:

1. The development of desirable interests, ideals, appreciations, and understandings.
2. The development of desirable habits of industry.
3. The development of managerial and operative abilities needed on the farm.
4. The acquisition of fundamental information pertaining to farm mechanics.
5. The daily accomplishment of the student.
6. The development of self-confidence and mechanical resourcefulness.
7. The development of problem-solving abilities. (8, p.498)

Among the methods of evaluating an individual's progress are examinations, oral responses, notebooks and workbooks, performance tests, daily evaluation, completed jobs or projects, activities put into practice on the farm resourcefulness of students, abilities developed, and personal observation. Daily grading is usually preferable since it stimulates and interests both student and instructor and it provides a more accurate grade.

Cook lists some questions to consider in evaluating the program in farm mechanics:

1. Was instruction provided for all three groups of students namely all-day, young farmer and adult farmers?
2. Were sufficient courses for out-of-school farmer groups offered to adequately meet their needs?
3. Did the all-day student receive adequate training in all the phases of the instruction outlined for the year?

4. Did the student have opportunity to develop abilities necessary for the construction or repair of jobs and projects needed in connection with their supervised farming programs?
5. Were the tools and equipment properly used and cared for?
6. Were the proper safety measures followed in the shop?
7. Were effective methods of teaching used?
8. Were good habits of industry developed?
9. Were desirable ideals, interests, attitudes and understandings developed?
10. Was a record kept of the skills performed by each student?
11. Were the shop jobs related to the students farming program?
12. Were home farm shops established?
13. Did the completed jobs show good workmanship?
14. Was the shop well kept (tools kept in place, room cleaned at close of each class period, and supplies kept in orderly fashion)?
15. Were adequate visits made to the students' homes?
16. Were shop jobs done at home by the student effectively supervised?
17. Were definite objectives for the instruction outlined?
18. Were the students always engaged in worth-while activities?
19. Was adequate provision made for maintaining and replacing tools and equipment? (8, p.497-500)

VIII. FUTURE FARMERS OF AMERICA

Historical Development:

From the very beginning of the federally aided program of vocational education in 1917, the boys who were enrolled in vocational agriculture in the various states felt a spirit of comradeship as a result of their common background of country life and their desires with regard to farming as a vocation.

In many local departments of vocational agriculture many agriculture student organizations developed. Such organizations were often called "Agricultural Clubs," and

in many instances were largely social and recreational in nature, but a certain amount of their activities included educational, self-improvement and co-operative features. Undertakings of this type, under the guidance of enterprising local teachers of vocational agriculture, marked the first tangible evidence of the desire of students of vocational to band together and do things in an organized way.

With the formation of patterns of experience in these local vocational agriculture organizations, the idea of banding together local groups of students of vocational agriculture into a larger organization grew in the minds of progressive leaders in the field of vocational agriculture. The idea of state-wide organizations with each local group as an active unit gradually developed.

In 1925 there was set up in the State of Virginia a State-wide organization of students in vocational agriculture. Professor Henry C. Groseclose of Virginia is honored for its origination and state organization. This organization had a definite constitution and by-laws, and ceremonies. Within the next two years this type of organization spread to several other Southern States. Such names as "Junior Farmers," "Young Farmers," and "Future Farmers" appeared in various parts of the country. The Future Farmers of Virginia attracted the greatest attention nationally because of its very excellent ideals, purposes, ceremonies, and constitution.

A committee at the 1927 conference of vocational agriculture supervisors and teacher trainers in the Southern States held in San Antonio, Texas, submitted a resolution whereby "each of the States develop a State Organization of Future Farmers, looking forward to regional or national federation." (39, p.533) In the same year the annual conference of supervisors and teacher trainers in agricultural education for the North Atlantic Region made reference to progress being made by vocational agriculture student organizations in the States of Virginia, Ohio, and New Jersey.

Scattered young farmer clubs had been established in New York departments of vocational agriculture as far back as September 1921 under the initiative of individual teachers. In the Fall of 1926 these young farmer clubs developed a State-wide activity known as the Association of Young Farmers Clubs of New York. The primary objectives of young farmer clubs were:

1. To teach boys to work together.
2. To train leaders and followers.
3. To effect economic savings and develop service attitudes.
4. To serve the social interests of farm boys.
5. To cement interest in the agricultural departments.
6. To lead boys into farmer organizations. (39, p.533)

In 1927 there were twelve states in which State-wide young farmer organizations were in operation. These organizations varied in degrees of development but all were State-wide in scope. In addition fifteen states had many so-called

"vocational agriculture clubs" in operation in many local departments.

The New York organization had forty schools with Young Farmer Clubs operating in 1928 with a membership of 1,250. At that time two general meetings had been held during the year, a publication entitled the "New York Timer" had been started, and a public speaking contest was in operation.

An important chapter in the development of the Future Farmers of America was written at the Southern Region Agricultural education conference held in 1928 at Memphis, Tennessee. Certain specific recommendations were made which later became the basis of the National organization known as the Future Farmers of America. During the North Central regional agricultural education conference it was pointed out that Ohio and South Dakota had numerous vocational agriculture clubs in operation. Suggestions and recommendations were made at this conference concerning State organizations, and the formation of a national organization.

At the Pacific Region agricultural education conference held in Denver, Colorado, 1928, W. T. Spanton of the Federal Board for Vocational Education, made the following statement;

"I cannot too heartily endorse the student organization idea, and believe it would be an excellent plan for a committee of supervisors in this region to make a study of the proposition and report back later in the week concerning the advisability of recommending that the various States promote the establishment of such

organizations, first into local chapters and later into a strong State-wide organization. In any such undertaking, I believe that the constitution, by-laws, etc., and general plans for the organization should, if possible, be similar enough so that the various State organizations can some day, if found desirable, unite into one strong Nation-wide organization, which might hold its annual national meeting in Kansas City in connection with the National Congress of Vocational Agricultural students. Personally, I have been most impressed with the constitution, by-laws, admission requirements, etc., of the organization in the State of Virginia, known as the F.F.V's or Future Farmers of Virginia. The name "Future Farmer" is catchy and appropriate, and if a strong national organization could be established what would be a more appropriate name than "F.F.A." or "Future Farmers of America."

"Several States in the region already have their vocational boys organized into local "clubs" of one sort or another so the unifying of the plan throughout the region so as to conform to the Future Farmers idea would be a comparatively easy task." (8, p.539)

At this conference a committee on new developments made the following recommendations in regard to a national organization of students of vocational agriculture which were adopted:

1. The Chief of the Agricultural Education Service of the Federal Board for Vocational Education proceed with the drawing up of a constitution and by-laws for a national organization of vocational agricultural students using the name of "Future Farmers of America" or other appropriate name, with a State chapter in each State, and with a local unit in each vocational agricultural department.
2. That national colors, slogan, and emblems be adopted and copyrighted.
3. That this region appoint Mr. Spanton, our regional agent, to represent us in all matters pertaining to the organization process at any conference called by the chief of the agricultural education service of the Federal Board for Vocational Education.
4. That each State in the Pacific Region proceed immediately

to organize State chapters, with local units in each agricultural department.

Teachers, teacher trainers, and supervisors of vocational agriculture were aware to the value of such an organization, and by the spring of 1928 the goal of a great national organization of students of vocational agriculture was in sight. Each region gave definite proposals and recommendations for forming a Nation-wide student organization, formulating a constitution for the Future Farmers of America, and launching it as the National Organization of, by and for students of vocational agriculture.

During the Summer of 1928 the agricultural education service of the Federal Board for Vocational Education drafted a temporary constitution for the Future Farmers of America organization, patterned closely after that of the Future Farmers of Virginia. In the Fall of 1928, the tentative constitution and explanation of affiliation was sent to all states, along with a call for the first national convention of the Future Farmers of America.

The first national convention of F.F.A. was held in Kansas City on November 20, 1928, in conjunction with the American Royal Livestock Show. Eighteen states were represented by thirty-three official delegates. At this meeting national officers were elected and a national constitution and bylaws adopted. The organization has grown from an active national membership of 16,217 in the fiscal year 1928-1929 to 204,937 in January 1947, with 6,000 active,

chartered chapters. This is the largest farm boy organization in the world.

Administration:

At the time of the first convention there was no provision in the constitution of the organization covering a definite plan of administration and supervision. This situation was not satisfactory, and in 1930 the Chief of the Agricultural Education Service of the U. S. Office of Education, acting as National Adviser, was empowered to appoint, from year to year, a committee of four State advisors, one representing each region, to serve with him in framing the policies governing this branch of vocational education in agriculture and in administering such policies. The adult advisory council is composed of four representatives of the Agricultural Education Service of the U. S. Office of Education and four State supervisors of vocational agriculture. The National Adviser is the council chairman. This group serves in the capacity of an Advisory Council to the National Adviser on the administration of the program. Six student national officers, the Adviser, Executive Secretary, and Treasurer constitute the National Board of Trustees.

The National Headquarters of the Future Farmers of America is located in the Agricultural Education Service, United States Office of Education, Federal Security Agency, Washington, D. C. By operating on "ten cents per year" membership dues the organization is self-supporting.

National Conventions have been held annually in Kansas City, Missouri, at the time of the American Royal Livestock Show. National officers are elected at this Convention, an annual program of work is outlined, old and new business is discussed, American Farmer degrees are granted, and State Farmer awards are announced. Each State may nominate one candidate for the American Farmer degree for each one thousand F.F.A. paid-up members in the State.

A State meeting is held usually at least once every year in most states. Officers are elected, programs of work outlined, state farmers and honorary members elected. In connection with these meetings agricultural contests are often held. The State supervisor of Agricultural Education is the State Adviser. The officers consist of a President, Vice-Presidents, Secretary, Treasurer, Adviser and Reporter.

Membership:

The kinds of membership in the organization are as follows:

1. Active membership - Any male student who is regularly enrolled in an all-day or day-unit class in vocational agriculture and who is not over twenty-five years old may be elected by a majority vote of the members of the local chapter. He may retain his membership throughout his high school career and for three years after the first National Convention following his graduation from high school.
2. Associate membership - A member automatically becomes an Associate member following the termination of Active membership.
3. Collegiate membership - This may include all trainees preparing to teach vocational agriculture and former

active F.F.A. members of charter local chapter who may be enrolled in the institution concerned.

4. Honorary Membership - Persons such as supervisors, school administrators, teachers of agriculture, businessmen, farmers, and other who have helped to advance vocational agriculture and the F.F.A. and who have rendered outstanding service may be elected to honorary membership by a majority vote of the members present at a convention or any regular meeting.

Degrees of Membership:

There are four grades or degrees of active membership, namely: "Green Hand," "Chapter Farmer," "State Farmer," and "American Farmer." An individual's advancement to each of these degrees is based upon his accomplishments with respect to farming, earnings, investments, leadership, and scholarship as set forth in the National Constitution. Local chapters determine the first two grades of membership, the State determines the third, and the national organization confers the fourth degree.

Aims and Purposes:

The primary aim of the organization is the development of agricultural leadership, co-operation, and citizenship. The specific purposes for which this organization was formed are as follows:

1. To develop competent, aggressive, rural and agricultural leadership.
2. To create and nurture a love of country life.
3. To strengthen the confidence of farm boys and young men in themselves and their work.
4. To create more interest in the intelligent choice of farming occupations.
5. To encourage members in the development of individual farming programs and establishment in farming.
6. To encourage members to improve the farm home and its surroundings.

7. To participate in worthy undertakings for the improvement of agriculture.
8. To develop character, train for useful citizenship, and foster patriotism.
9. To participate in co-operative effort.
10. To encourage and practice thrift.
11. To encourage improvement in scholarship.
12. To provide and encourage the development of organized rural recreational activities. (16, p.3)

The motto consists of only four lines, but these lines reflect the true vocational spirit and the sincerity of purpose of the future farmers.

"Learning to do,
Doing to Learn,
Earning to Live,
Living to serve."

One parent of an F.F.A. member expressed some of the values of the organization:

1. The F.F.A. allows the boys to identify themselves with a strong school organization through which they may express themselves and learn to be leaders in worthwhile projects.
2. It provides opportunities for advancement through degrees of membership based on accomplishment.
3. It provides for trips to state and national conventions and contests.
4. The F.F.A. develops boys socially.
5. The F.F.A. teaches boys to accept responsibilities as citizens.
6. It develops abilities in the boys to express themselves.
7. The F.F.A. teaches boys to be leaders and to accept and follow good leadership.
8. The F.F.A. teaches boys their responsibility for community service.
9. It teaches boys to work with others.

10. It teaches boys the need for thrift.
11. The F.F.A. teaches boys the need for conserving health.
12. The F.F.A. stands for work well done.
13. It dignifies the work, the members learn that it is honorable to work with their hands.
14. It develops boys culturally and vocationally. (6, p.216-217)

The Future Farmers of America Foundation, Incorporated:

Many corporations and business concerns have become enthusiastic supporters of the National Organization of the Future Farmers of America. Numerous prizes and awards have been awarded by these commercial concerns in various competitive vocational agriculture activities. Because of the increasing numbers of corporations and business concerns which desired to co-operate, the Future Farmers of America Foundation was incorporated. This Foundation makes co-operation possible without the necessity of establishing any additional types of contests. Through the pooling of funds in the Foundation, more adequate awards can be made with less administrative detail and in addition, each donor receives recognition for all Foundation awards rather than for one specific project or activity.

Program of Activities:

An outline of activities is set up in a program of work covering a definite period of time, approximately one year, which includes specific goals, ways and means of reaching them, and provision for checking on the

accomplishments. The Future Farmers of America realize that well developed programs of work based on the interests and needs of the members and the organization as a whole usually result in a very worthy list of accomplishments. A satisfactory program must be carefully put together from selected materials and, when completed, should represent the combined thinking of a majority of the members. Comprehensive programs stimulate student interest, provide many opportunities for worthwhile experiences, help to develop an effective training program in vocational agriculture, and develop community interest and understandings. Such programs require time, sincere effort and considerable guidance from the adviser. Through such programs the State and National organizations are able to make successful progress and a contribution which is nation-wide in effect.

For a beginning chapter the first year's program is expected to be less elaborate than those of the following years. Each year the program expands into a comprehensive program. The activities should be based on the needs of the individual members, the entire chapter, and the community as a whole. The local advisor must show sound judgment and assist the members in deciding what activities they deem desirable to include in the annual program.

In building a satisfactory program of work for a going chapter the following steps are suggested by the National organization as being helpful. They vary, of

course, with different situations:

1. Review last year's program of work at chapter meetings. Try to find out why certain items were successful. Discuss also the present needs of the chapter, its membership, and the needs of the community.
2. Select from last year's program and list the items which should be continued for the present year. Add suggestions on new items offered by members.
3. From copies of the programs of work of the State association and the national organization, select and list items which can and should be included in the chapter program.
4. Secure copies of other chapter programs and get ideas on other suitable program items.
5. Appoint a program of work committee, if one is not already designated, with subcommittees for each section of the program and turn over the preliminary materials as listed to this group. It should be the duty of this committee to further survey and check needs, study the suggestions already offered, and to set up a tentative program of work including goals and ways and means.
6. Have the committees on program of work report back to the chapter, discuss their reports in open meeting, and have them re-worked as necessary until satisfactory.
7. Check the program of work with school authorities and others concerned.
8. Adopt the program when satisfactory, appoint permanent committees to be responsible for each major division and set to work on it. (16, p.34)

The major divisions for the program of work usually include the following headings:

- | | |
|-------------------------|-------------------------|
| I. Supervised Farming | VI. Conduct of Meetings |
| II. Co-operation | VII. Scholarship |
| III. Community Service | VIII. Recreation |
| IV. Leadership | IX. General |
| V. Earnings and Savings | |

Activities Under Each Section:

Building programs of work which are really worthwhile and then carrying them to a successful completion is highly important. The activities listed below are typical of those which have been used by various chapters. The goals varied with the different chapter situations. (16, p.35-36)

I - Supervised Farming

- Establish a loan fund for members.
- Assist members in locating desirable animals, seed and supplies.
- Increase ownership of productive projects.
- Assist members to start continuation projects the first year.
- Assist members to develop agricultural libraries.
- Encourage home improvement projects.
- Encourage the use of certified seed and pure-bred sires.
- Provide for treating and testing project before planting.
- Conduct project tours.
- Conduct a project contest and offer suitable awards for outstanding accomplishments in farming.

II - Co-operative Activities

- Buy animals and feed co-operatively.
- Buy seed co-operatively.
- Hold pure-bred sale for project animals.
- Operate a "For Sale" and "Wanted" bulletin service.
- Set up a feed grinding co-operative.
- Organize a livestock improvement subsidiary.
- Organize a crop improvement subsidiary.
- Operate a chapter-owned incubator.
- Organize a mutual insurance company.
- Purchase tools for home farm shops co-operatively.
- Provide for group membership in leading farm organizations.

III - Community Service

- Improve poultry by culling.
- Sponsor a community fair.
- Test seed corn for farmers.

III - Community Service (Continued)

Test milk for farmers.
Test soil for farmers.
Erect bird-feeding stations.
Assist in making farm surveys.
Beautify school grounds.
Contribute food and clothing to the needy.
Assist with community Christmas.
Conduct a farm fire hazard survey.
Conduct safety and health campaigns.

IV - Leadership Activities

Provide a chapter leadership training school.
Send members to State and district conventions and leadership schools.
Assist members to prepare for the higher degrees.
Enter the State chapter contest.
Hold chapter public speaking contest.
Prepare and put on radio programs.
Print and distribute a chapter news letter.
Provide committee experience for all members.
Contact eighth grade pupils in rural schools.
Improve the chapter library.

V - Earnings and Savings

Prepare a budget for chapter funds.
Develop a plan for raising chapter funds.
Establish a thrift bank.
Maintain chapter account in a local bank.
Provide personal account books for members.
Increase chapter investments.
Set up a permanent system of chapter accounts.
Encourage members to invest savings in land, live-stock, and farm equipment.
Help members to set up financial goals.
Increase the average member earnings.

VI - Conduct of Meetings

Set up definite schedule for regular meetings.
Provide special training for newly elected officers.
Secure needed official equipment and supplies.
Develop a series of program features for meetings.
Hold joint meetings with nearby chapters.

VI - Conduct of Meetings (Continued)

Plan special meetings for summer months.
Provide recreation and refreshments for meetings.
Hold scheduled initiation meetings.
Provide a chapter room and equip it.

VII - Scholarship

Provide "big brothers" for new members.
Provide recognition for outstanding members in scholarship.
Maintain an honor roll of members with high grades.
Assist members whose scholarship is low to improve it.
Encourage members to try for the National Honor Society.
Use scholarship standing as one determining factor in electing members to positions of honor.
Devote meetings to methods of improving scholarship - how to study.

VIII - Recreation

Hold parent and son banquet.
Send members to the State camp.
Provide games for the chapter room.
Chapter take charge of noon recreation program at school.
Help to provide local playgrounds.
Stage a community sing.
Sponsor recreation programs in isolated areas.
Organize a string band or quartette.
Entertain associate and honorary members.
Sponsor a community picnic.

IX - General Activities

Many activities have not been mentioned.

Some of these may be stated as follows: (8, p.542)

Putting up F.F.A. signs and markers.
Taking pictures of activities.
Preparing 2" x 2" slides of activities.
Conducting assembly programs.
Providing good reading for leisure time.
Giving rural school programs.

IX - General Activities
(Continued)

Co-operating with the school activities.
Buying equipment for the chapter room.
Giving demonstrations.

It is helpful to display the program of work on a wall chart in the classroom.

Such activity programs cannot help but develop greater appreciations and abilities in a boy which will "carry over" with him throughout life.

Unsatisfactory programs of work are commonly due to one or more of the following causes:

1. Insufficient time, thought and study.
2. Getting the program set up too late in the year.
3. Poorly selected items and lack of challenge.
4. Indefinite and impractical goals.
5. Ways and means not well developed.
6. Poor committee organization and work.
7. Leaving too much of the building of the program to individuals or the program of work committee.
8. Inadequate financing.
9. Lack of balance in the program - not enough variety - too many items of the same type.
10. Lack of follow-up on the various items at chapter meetings.
11. Failure on the part of ALL members to realize it is their program rather than that of a smaller group within the chapter.

One of the most satisfactory forms for a program of work is as follows:

Activity	Committee Responsible	Goal	Ways and Means	Accomplishments

Financing Chapter Activities:

The work of a live and growing chapter requires certain funds to carry on its work. The amount needed depends largely upon the program of work and what is hoped to be accomplished. For this reason chapters prepare a budget of expenses for the year. Since local chapter dues do not usually carry the whole financial load, certain fund-raising activities are employed. Conditions affecting the raising of funds vary in every community. Full knowledge of the local situations regarding such matters is most important.

Since one of the principles in the F.F.A. is "paying our own way as we go," donations from outside agencies or individuals is avoided. Overworking the money-raising angle and too much vending is disapproved by the organization.

Some chapters have set up definite plans for securing loans for their farming programs. The loans are largely student managed. There are many activities and methods of raising funds for the chapter; J. B. Kirkland listed thirty-three methods used (28, p.145) and G. C. Cook an extra fourteen. (8, p.548-549)

State and National Chapter Contest:

Every year each chapter is judged in a contest with the other chapters in the state. Each chapter prepares its own annual program of work and its final report, and submits it to the State Advisor. The winners of the contest are

selected on the basis of the quality of the program of work and the accomplishments of the chapter. The four levels of achievement are: first, Gold Emblem Chapters; second, Silver Emblem Chapters; third, Bronze Emblem Chapters; and fourth, Honorable Mention Chapters.

The program of work of the two outstanding chapters in each state is submitted to the National Chapter Contest. The four levels of achievement in the National Chapter Contest are the same as in a State Chapter Contest, namely, Gold, Silver, Bronze, and Honorable Mention. The chapters are classified on the basis of achievement as measured by the official score card.

Supervised practice is given the most stress in scoring, followed by Co-operation, and Community Service. The following is a copy of the National Score Card:

	<u>Program of Work</u>	<u>Accomplishments</u>
I. Supervised Practice	50	150
II. Co-operation	40	120
III. Community Service	40	120
IV. Leadership	30	90
V. Earnings and Savings	30	90
VI. Conduct of Meetings	20	60
VII. Scholarship	20	60
VIII. Recreation	<u>20</u>	<u>60</u>
Total Perfect Score	250	750

In scoring Supervised Practice activities, major consideration is given to the work of the chapter as a group in aiding and stimulating the development of more effective individual farming programs among its members.

In scoring Co-operative activities, major consideration is given to the degree of participation of the chapter members in: (a) business activities such as financing and insuring projects; (b) buying and selling activities; (c) productive activities; and (d) chapter subsidiaries including crop or animal improvement association, spray rings and the like - all of which are sponsored by the chapter.

In scoring Community Service activities, major consideration is given to chapter undertakings relating to: (a) improvement of farm practices in the community; (b) conservation of natural resources (soils, trees, wild animal life, etc.); (c) beautification and improvement of homes, grounds and buildings in the community; and (d) other social and general activities for community betterment.

In scoring Leadership activities, major consideration is given to the extent to which the chapter has provided leadership training for all members and the extent to which members have developed and exercised leadership in school, chapter, farm, and community activities.

In scoring Earnings and Savings activities, major consideration is given to the undertakings of the chapter as a group in earning and wisely using money and in encouraging members with respect to: (a) earnings derived from farming; (b) investments in farming; (c) cash savings; and (d) other investments. Special consideration is given to chapter

budgets, financial statements and evidence of the promotion of savings by means of a chapter thrift bank.

In scoring Conduct of Meetings, major consideration is given to: (a) the type of programs planned for meetings; (b) time of day chapter meetings are scheduled; (c) frequency of meetings; (d) length of meeting period; (e) average attendance at meetings; (f) chapter equipment; and (g) business conducted as revealed in the Secretary's minutes of meetings.

In scoring Scholarship, major consideration is given to the activities of the chapter as a group in attempting to improve the scholarship average of all members, including both academic as well as vocational subjects for the school year ended in June.

In scoring Recreation, major consideration is given to the kind and number of the organized recreational activities successfully sponsored or directed by the chapter and participated in by members, as well as others. This includes summer camps, athletic contests, tours, parent-and-son banquets, and various social or educational events contributing to the improvement of community-wide recreation.

Other Contests:

Besides the National Chapter Contest and the State Chapter Contest, there are a number of other National and State Contests.

Some of the contests or awards sponsored on the National level are:

1. National Chapter Contests.
2. The Farm Mechanics Award.
3. The National F.F.A. Public Speaking Contest.
4. Star, State, and Modern Farmer Awards.
5. Farm and Home Electrification Awards.
6. American Farmer and Superior Farmer Awards.
7. Farm and Home Improvement Awards.
8. Other contests held in connection with the National F.F.A. Convention.

Some of the contests or awards sponsored on the State level are:

1. Better chapter contest.
2. Public speaking contest.
3. Other contests or awards sponsored on the National level and referred to above.
4. Farm mechanics.
5. Milk testing.
6. Selection of livestock.
7. Selection of seed.
8. Grading eggs.
9. Demonstrations.
10. Selection of layers (with emphasis on records).
11. Selection of dairy animals.
12. Weed identification.
13. Panel or booth exhibits.
14. Meat identification.
15. Pasture improvement.
16. Farm Underwriters' Association Award.

Contests and Instructor's Time:

In a recent tour of the United States, Professor H. H. Gibson of Oregon State College noted that F.F.A. activities and chapter projects in vocational agriculture are assuming an increasingly larger place. It appears that certain activities that were formerly classed as extra-curricular have now become curricular activities, and some of them are now assuming major importance rather than minor

importance as formerly. Contests, for instance, with all that they involve in effort to win honors, prizes and awards on a local, state and national level, seem to be assuming more importance as to time requirements. One instructor, whose chapter recently received a national gold emblem award, stated to Professor Gibson that he could have had a much better all-round program in vocational agriculture had he not gone out for winning contests and the national award. Many things which he considered relatively more important in the all-round development of all the boys and young farmers in his community had to be neglected because of the concentration of effort he found it necessary to place upon items that were considered in the evaluation of his chapter program and for the gold emblem chapter award. He said, too, that he found a great deal of time was consumed by him and his boys in preparing the report. (22, p.2-3)

Vocational agriculture instructors meeting at the 1947 National Convention of the American Vocational Association in Los Angeles, California, suggested procedures in simplifying their job. In a survey of agricultural instructors in the State of California, the chairman of the meeting disclosed that many vocational agricultural men are working overtime because their job has become too large for one man. It does not seem to be the answer to solve the problem through the wholesale dropping of activities, but, rather through the addition of more man-power. Mr. Cross,

the chairman, concluded that training judging teams to win is a questionable activity and probably should be dropped by all schools, or, certainly relegated to the same importance as other class-room activities. (10, p.1-10)

To determine the strengths and weaknesses of a local chapter it is desirable to evaluate at the end of the year what has been achieved in terms of the objectives and goals set up. All phases of the local F.F.A. organization should be evaluated, including such items as: the chapter meetings, entertainment, participation by members, officers, program of work, accomplishments, and the like.

IX. PART-TIME AND EVENING INSTRUCTION

Historical Development:

Another aspect of agricultural education in the United States is the instruction for young farmers out-of-school and for adult farmers. This contribution of agricultural education began in 1918 was an active forerunner of adult education which has been advocated strongly in recent years by many other educational agencies.

The United States Congress and the persons responsible for the development and motivation of vocational education realized from the beginning the place and importance of programs of vocational education in agriculture for out-of-school young men and adult farmers. The Smith-Hughes Act mentioned that such education was intended for those "who

have entered upon.....the work of the farm....."

Instruction for out-of-school young men and adult farmers was organized early in various parts of the country. In 1921 the Federal Board for Vocational Education designated one of the members of its agricultural education service staff to make a study of education for those already engaged in farming. This staff member travelled throughout the United States to see what methods States and local schools were following in developing educational programs for these two groups. Because of an increase in emphasis upon education for those already engaged in farming, bulletins covering agricultural education, both evening and part-time classes, were published by the Federal Board for Vocational Education in 1923 and 1926, respectively.

During the period 1920-1930 agricultural education leaders recognized the fact that good teaching procedure is as important in carrying on part-time and evening-school classes as in conducting all-day classes. It was realized that instruction must be based upon the actual experience of the farmer. In order to give assistance to teachers in developing a procedure for conducting classes for farmers the Federal Board for Vocational Education published a bulletin under the title, "Conference Procedure in Teaching Agricultural Evening Schools." In 1929 a specialist in part-time and evening-school work was appointed by the Federal Board for Vocational Education.

Young Farmer Classes:

Young farmer classes, also known as part-time classes, are made up of out-of-school young farmers usually between the ages of 16 to 25 years. These classes are organized for interested young farmers who conduct a farming program related to the course of instruction under the supervision of the teacher of vocational agriculture.

This group is the connecting link between the all-day and adult farmers classes. Many young farmers are too old to go to high school, yet they are not established in farming and are too young and too inexperienced to want to enroll in classes for adult farmers. Thousands of farm youth who were in the military service may enroll in the courses for out-of-school youth or adult farmers conducted in connection with the regular programs in vocational agriculture, or they may enroll in courses made possible through Public Law 346, the "Servicemen's Readjustment Act of 1944" (G.I. Bill of Rights).

In a survey of communities in Michigan it was found that there were more out-of-school young men between the ages of 16 and 25 on farms than there were all-day students enrolled in high school departments of vocational agriculture in these communities. Two out of three expressed themselves as being interested in joining a young-farmer class to study farming problems.

During this period of life many of the young men on

farms face the problems of definitely deciding on a vocation and of establishing a home. Many are confronted with problems of finding opportunities for farming, securing the necessary equipment and livestock, and making financial arrangements, as well as problems of producing and marketing products efficiently. It appears that opportunities for satisfactory establishment in farming are decreasing, due largely to the increased mechanization of farming and the general increase in number of large farms. It is desirable for instructors to survey local opportunities to provide guidance to boys in accordance with their interests and qualifications. Problems of establishment are very important for out-of-school young men on farms. The needs or problems of the young-farmer group should furnish a valid basis for deriving objectives for programs of supervised farming and in turn for organized instruction.

Objectives:

The major objective for part-time groups is to develop the abilities necessary for finding opportunities and accumulating the assets for improvement in farming status. As mentioned previously, one of the major objectives of vocational agriculture is to develop effective ability to make a beginning and advance in farming. The contributory objectives necessary to the attainment of this major objective may include effective ability to:

1. Evaluate resources for farming.
2. Analyse opportunities for farming at home and on other farms.

3. Locate advantageously for farming.
4. Arrange for initial participation in farming.
5. Procure suitable land for farm operations.
6. Obtain supplies for farm operations.
7. Procure necessary farm equipment.
8. Procure and maintain livestock.
9. Obtain needed capital on a sound financial basis.
10. Increase size of farming business.
11. Purchase farm lands advantageously.
12. Set up a long-time farming program.
13. Formulate and attain specific advancement goals at definite periods of time.
14. Formulate and carry out a self-improvement program.
(45, p.5)

It is important to develop objectives co-operatively with the young farmers in terms which are meaningful to them.

"The Agricultural education service of the U. S. Office of Education is constantly emphasizing the fact that vocational education in agriculture attains its objective only when it results in the placement and adjustment of the individual in farming; that unless young men who want to farm are helped to get into farming, and unless both young men and adults wanting assistance with their problems of improvement receive such assistance, vocational education in agriculture falls short of its purpose. Placement of young men in farming and the progressive establishment of both young men and adult farmers in farming occupations have become the final criteria for measurement of the effectiveness of vocational education in agriculture for out-of-school activities." (39, p.514)

Developing Course Programs:

In many communities an advisory council is used to

assist in planning and conducting the course. Such councils would probably be in wider use if their work was more understood. The use of an advisory council is discussed in a later section on Community planning.

The needs, together with interests, capabilities, and the home-farm facilities, should provide a basis for deriving purposes or objectives of the programs for young farmer groups. The vocational agriculture teacher should determine the needs by survey techniques, similar to those for the day-school groups. This information can be collected at the time of interviewing prospective members of the class on their farms. Further information can be obtained by holding conferences with the young men after enrolment, and by interviewing the parents. The teacher may then present his findings to the advisory council and discuss the proposed course with them. The young farmers should be given an opportunity to express their desires as to the content of the course. Besides containing the activities which give immediate interest, the course content should be supplemented with social, recreational and citizenship activities which will contribute to establishment as a citizen in a rural community.

In conducting a survey as a primary step in planning the program the instructor is advised to determine (a) the names and locations of persons likely to be interested in these services, (b) the particular services needed by

prospective students, (c) the production and management needs and resources of the farms which provide present occupational opportunities for the students, (d) an analysis of the agricultural trends and resources of the community and (e) the need for and requirements of educational services as indicated by key farmers, officials of local farm organizations, members of advisory boards, members of boards of education and school officials. (42, p.20)

Some phases of supervised farming can frequently be carried over from day-school classes for the young men who have been members of day-school classes. These young men may have built long-time programs which extended into the out-of-school period.

Some Guiding Principles for Developing Supervised Farming for Young Farmers:

A number of basic principles to follow in developing supervised farming programs for young farmers have been developed. A group of teachers in North Dakota formulated the following "guiding principles."

1. The program should be planned to provide the individual members a systematic and supervised program of instruction on their home farm.
2. The program should promise financial returns to the young man and should be planned to contribute to establishment in farming.
3. The program should be of sufficient scope to challenge the interests of young men concerned.
4. The young man and parent, plus the teacher, should plan and organize the program, keeping in mind the boy's share in returns and management, and the possibility of future partnership.

5. The program for each boy should be planned on a long-time basis and should aim toward satisfactory establishment in farming.
6. Individuals should keep such records and accounts as will teach and lead them to keep simple farm accounts and to measure their growth in farming.
7. The program should expand in scope and breadth, and possibly increase the size of the home-farm business so as to provide an opportunity for placement on partnership.
8. When the individual has a share in the home farm business, there should be a written agreement between parent and son.
9. The instructor and the group should strive to find ways and means for financing the supervised farming programs of individual members meriting and needing financial assistance.
10. The instructor will find it necessary to give the young men who do not already have well-established farming programs special help in analysing their situations and in planning possible programs.
11. The instructor has a definite obligation and responsibility in giving help to individual members in planning and carrying out their farming programs.
12. The instructor should know when the critical periods are in the individual farming program and should make sure that the individual is properly prepared to meet these situations.
13. The instructor's trips to the boys' farms should not be just visits. Rather, they should result in teaching of the highest type. (33, p.15-16)

Young Farmer Associations:

Young Farmer Associations have been successfully organized in many states. It has been found that such associations motivate and stimulate the members of a well-organized farmer program. Many worth-while advantages are derived through such a program. It fills a natural need

for training and experience in leadership, organized recreation, co-operative activities, improved agriculture, community service and farmer citizenship. It provides an organization which serves to bridge the gap between high school age and the time when an individual may take membership in an adult farm organization. The Young Farmer Associations co-operate with the Future Farmer Chapters in their activities. Young men may be helped in getting established in farming by encouraging and maintaining a system of information whereby members are kept posted on land available for purchase, renting and leasing.

An example of a state organization is the California Young Farmers Association. It was organized in 1936 as an alumni association of Future Farmers of America. In 1940 membership was opened to any Young Farmer interested in Agriculture. It is a non-political, non-secret, non-profit farm Youth Organization of voluntary membership, centered around an educational program in high schools and junior colleges teaching vocational agriculture. The Secondary Public Schools System sponsors the Organization, with the agricultural teachers as local advisers, Regional Supervisors of the Bureau of Agricultural Education as Regional Advisers, and the Chief of the Bureau of Agricultural Education as State Adviser.

One of the purposes of the California Young Farmers Association is to increase the members knowledge in

agriculture through systematic education. This includes an outline of topics for discussion, possible speakers, movies and field trips in an annual chapter program of work. The topics may include Income Tax forms, health insurance, life insurance, fire insurance, water rights, drainage districts, outlook for various commodities, and others. Whenever the need exists, the Chapter sponsors a "short course" on some farming enterprise and invites all interested people in the community to attend. The Organization considers giving each member an assigned demonstration or an assigned discussion to lead during the year; assign certain members to conduct field experiments and test plots for the combined benefit of all members; present an educational-demonstration program before an adult farm organization meeting. Local legislators are invited to discuss agricultural legislation matters at Chapter meetings. Legislative committees may be appointed with duties of seeking out information on recent legislative proposals and report at each Chapter meeting. A close contact is maintained with all government agricultural agencies available so as to acquaint members with their services. (4, p.7-10)

A Young Farmer program can help the teacher of vocational agriculture. The vice-president of Utah's Young Farmers Association recently said, "To begin with, we are helping the agriculture teacher conduct a stronger and more effective Future Farmer program. In Utah we help the

Future Farmer chapter set up for fairs and field days and we act as judges for many F.F.A. activities. We also offer prizes for F.F.A. contests, and work out co-operative F.F.A. - Y.F. programs for buying and selling feed, supplies and equipment." (29, p.211,213)

A teacher of vocational agriculture in California stated, "Many of the F.F.A. activities that we carry out would be much less effective if it weren't for our Young Farmers. Another thing that shouldn't be overlooked is the assistance Young Farmers give to our supervised farming programs. In my school the Young Farmers offer a \$50.00 cash prize annually to the freshman student of vocational agriculture who develops the most outstanding farming program. The Young Farmers themselves determine the winner by judging the progress made by each member of the freshman class. This one thing alone has made my time-investment in a Young Farmer chapter worth-while."

Young Farmers are excellent public relations agents. The teacher of vocational agriculture can usually depend upon them whenever he needs some local support. From the members themselves there is springing a need for a Young Farmer program on a national level.

Adult Farmer Classes:

With the development of part-time and evening-school instruction there came a need for determining whether the instruction offered was based on the problems confronted in

the farming operations of the recipients. Adult groups were given special consideration as to the development of supervised or directed practice. In 1930 the Federal Board for Vocational Education issued as an assistance to this development the bulletin "Supervised or Directed Practice in Adult Evening Schools." A series of monographs followed presenting suggestions on the type of unit courses appropriate for adult farmers. A number of studies were promoted for discovering the specific needs of out-of-school young men and adult farmers, and previously published bulletins on organizing instruction were brought up to date to meet the changing conditions. "Toward the close of the period 1920-30, vocational agricultural leaders and teachers were beginning to place emphasis on the responsibility resting upon vocational agriculture students to become established in farming." (39, p.513-514)

Teachers and State leaders began to clearly understand the long-time farming program, by the first part of the 1930-40 period. They realized that training for farming will function best when conducted on a long-time, year-round continuing basis, accompanied by a wide variety of comprehensive educational activities.

Need and Growth:

Farmers are turning to schools in ever increasing numbers to find solutions to their problems. The adult program is becoming more important each year. Competition

in farming is becoming greater, and scientific information is needed much more today than it was formerly.

As far as the need for adult education in agriculture is concerned, very little assistance was given before World War II. Beginning in 1940, special funds were made available through the Food Production War Training program for an expanded program in adult education. "From the beginning of this program in December, 1940 to the close of the program in 1945 there were a total of approximately 200,000 courses conducted in approximately 15,000 rural communities with 4,500,000 persons enrolled, which is in addition to the 936,018 persons enrolled in adult classes for the same period reimbursed from Smith-Hughes and George-Dean funds. The number of courses offered and the number of persons enrolled in these programs is indicative of the need for adult education. This is definite proof that farmers will enroll in adult courses in agriculture if given what they want, the way they want it, and where they want it taught."

(8, p.654)

Objectives:

The primary objective for adult farmer classes is to develop through systematic instruction the ability of farmers to intelligently solve their problems and perform the manipulative jobs needed on the farm. This should mean improved farming abilities and improved farm living, resulting in increased proficiency of the farmer and

improved farm family living. Adult farmer classes provide up-to-date information in approved practices pertaining to farming which will result in a number of efficiency measures of production when adopted. The classes should also develop and improve abilities in farm management, farm mechanics, co-operative activities of the members, food production and conservation, improvement projects, and the abilities which will result in making the farm a better place on which to live.

With rapid progress in the mechanization of farms there is a need for training in preventive maintenance and repair of machinery and equipment and the construction of labor-saving devices. It is a question of greater economical production. There is a great demand for training in the various phases of farm mechanics.

One of the most popular courses in adult education in agriculture conducted during the late War Training program was food production, conservation and processing for farm families. Many communities established school community canneries. The first school-community canneries were established in the States of Georgia and South Carolina in 1926 and 1928, respectively. These canneries have met a definite need in the communities, and have been accepted by many state and local officials as a definite part of the high school's educational program.

Farmers will always need organized instruction on

efficiency measures of production and approved practices. If the future needs of the communities are to be met a large number of commodity courses should be promoted. Such courses as field crops, soil conservation, fruits, vegetables, feeds and feeding, dairy, poultry, cattle, swine, and farm management, will continue to be important.

In the appraisal of the Food Production War Training Program the enrollees averaged 37.4 hours in farm machinery, 23.5 hours in food preservation courses, and 15.9 hours for those in commodity courses.

Selecting and Developing Programs:

In Monograph Number 9 of the U. S. Office of Education, entitled "Supervised or Directed Practice in Evening Agricultural Schools," it is indicated that teachers should:

1. Build the course of study on the needs of the group.
2. Choose appropriate teaching procedures, namely, instructing, informing, conference discussions, or a combination of these, as conditions require.
3. Continue the teaching to the doing level.
4. Give individuals encouragement and assistance in carrying out managerial decisions or using instruction obtained in connection with their supervised practice.
5. Emphasize the economic value of the improved practice.
6. Use experimental-station data to supplement experiences of the farmer.
7. Use records of all-day, part-time, and evening students as teaching material.
8. Visit members of the class on their farms.
9. Become familiar with the situations on the farms of each member of the group by personal observation.
10. Keep in touch frequently with members of the group.
11. Consider each member of the group as an individual with special needs.
12. Have a plan for keeping records of supervised practice.
13. See that records kept by the farmers contain usable information.

14. Analyse with the group the results of supervised practice.
15. Assume responsibility for follow-up of the supervised practice.¹

Suggested steps in conference leading, along with preparation, situations and problems that must be met and handled by the conference leader, are listed in the appendix.

X. DEVELOPING A PROGRAM OF VOCATIONAL AGRICULTURE IN A COMMUNITY

The agricultural instructor's activities are increasing in scope as time moves on. In a one-teacher department this situation sometimes develops to the place where the instructor feels that he has neither the time nor the patience to work out what he believes to be a well-balanced community program in agricultural education for his community. The result is that he tends to select certain segments or portions of the work which he believes will receive most local, state and national recognition. "He has a tendency to capitalize on those activities that are more popular, even the activities that border on the spectacular and bizarre. Because of recognition given by local communities, chambers of commerce and other agencies to the spectacular, the instructor is under pressure to do things which he believes are expedient even though, in his judgement, they are not sound and do not make for the

1. U. S. Office of Education - "Supervised or Directed Practice in Evening Agriculture Schools" - Monograph No.9

development of a long-time, well-balanced program in vocational agriculture for the community. On the one hand, we are strong for setting up criteria for evaluating programs in agricultural education with reference to educational abilities and objectives that are considered significant in vocational agriculture. And yet if we were to evaluate all the time-consuming activities that are being performed by agricultural instructors and students, we believe that many would have to be eliminated and others would have to be given a new direction. Agricultural teaching must be more than the performance of a lot of activities and jobs. There must be selection and integration with reference to the aims and objectives which we believe are desirable to attain. If we continue to develop our program mainly through addition of new activities and without elimination and re-evaluation of these activities, then two or more teachers will be needed in all of our developments. However, if we are to continue to have many one-teacher departments, then the approach to vocational agricultural education for the community must begin with a survey and analysis of its needs and with a selection of those activities that are considered relatively most important. Of course a community program in which the people themselves have more of a part in determining needs and objectives and in sharing responsibility for carrying them out would give us a sounder basis for evaluating the agricultural instructor's job. It

would also make it possible to use a great deal more of lay leadership and unused human resources in the community in carrying out the program. It would give the people of the community a better background and prospective for judging and evaluating the program in vocational agriculture. Too often now the teacher is the program and when he leaves or changes jobs a lay leadership or clientele has not been developed to carry on the program. This is due to the fact that a teacher program and not a community program in agricultural education has been developed." (18, p.1-2)

Too frequently the program in vocational agriculture appears to be the teacher's program and not a community program. It is important to make an inventory of local resources and assets, both human and physical, and discover the community needs. Laymen and farmers should co-operate in analyzing their own needs and setting up objectives. Community program making when properly developed should help bring more order and balance to many agricultural departments.

In planning and developing a program of agricultural education in a community the agriculture teacher should develop the ability to:

- I. Discover the Community Needs.
- II. Choose Objectives to Meet the Needs of the Community.
- III. Make Plans for Achieving Objectives.
- IV. Evaluate the Community Program.
- V. Improve and Re-plan Program as a Follow-up of Evaluation.

Each of these abilities may be further developed as indicated in the following outline:

- I. Discover the Community Needs:
 - A. Select and use available sources of information
 1. Records of department
 2. Records of Extension Service
 3. Soil Surveys
 4. Census data
 5. Soil Conservation Service
 6. Other agencies
 - B. Use Co-operating Agencies and Individuals
 1. Advisory Committee
 2. Farmers
 3. Veterinarians
 4. Feed dealers
 5. Bankers
 6. Farmer Organizations
 7. Others
 - C. Make Surveys to Collect Information Relating to Conditions and Needs
 1. General farm surveys
 2. Enterprise surveys
 - D. Discover kinds and extent of opportunities in farming; individuals and farms
 - E. Discover what needs to be done to improve the living conditions of farm people
 1. Buildings
 2. Sanitation
 3. Live-at-home needs
- II. Choose Objectives to Meet the Needs of the Community: These objectives will have to do with developing the abilities of present and prospective farmers to:
 - A. Become established, placed or employed in farming or related occupations.

Example: Assist in developing parent and son agreements.
 - B. Produce farm commodities more efficiently

Example: Develop feed and pasture programs; improve livestock sanitation; increase butterfat production

- C. Manage and operate a farm business more effectively

Example: Increase efficiency in use of farm machinery

- D. Market farm commodities more efficiently

Example: Organize a co-operative

- E. Conserve soil and other natural resources

Example: Use of terraces; contour farming

- F. Maintain a favorable environment

Example: Develop a program of home beautification; put in water systems

III. Make Plans for Achieving Objectives

- A. Determine how to use the following agencies most efficiently

1. Advisory Committee
2. All-day instruction
 - a. Class instruction
 - b. Supervised farming
 - c. F.F.A. program
3. Young farmer and veterans classes
4. Adult classes
5. Adult organizations
6. Summer program
7. Publicity
8. Community service
9. Outstanding farmers

- B. Use an appropriate form in setting up an immediate and long-time community program (include objectives, goals, ways and means and a calendar schedule).

IV. Evaluate the Community Program

- A. Determine the evaluative criteria to be used

- B. Select procedure to be used in making evaluations: persons co-operating, group conference, field studies, etc.
 - C. Make evaluations of progress of current year's program
 - D. Determine progress made
 - E. Make periodic evaluations of progress
- V. Improve and Replan Program as a Follow-up of Evaluation
- A. Discover and suggest possible improvements and adjustments in program

It would seem desirable for agriculture instructors to develop a lay leadership that will have the vision and know-how to plan and to develop community programs. In the past the people themselves, through properly selected or appointed representatives of all classes and interests, did not participate in developing a program in vocational agricultural education for the community. Professor Gibson of Oregon State College was surprised to find in his 1947 cross section tour of the United States that little has been accomplished (taking the country as a whole) in using advisory councils in community program planning of vocational agriculture. "In one state where advisory councils have always been a requirement, it was reported that a recent survey study revealed that not more than fifteen per cent of the advisory councils were in any degree effective and that only a small percentage of these had really functioned. However, I did find everywhere a renewed interest

in community program planning and evaluation, with the use of advisory councils, out of all proportion to results achieved to date. Frequently, it would seem that the cart was placed before the horse -- that is, advisory councils were appointed and then a question was raised as to their purpose. For this reason, many of them never started to function." (19, p.1)

The advisory council is not new in agricultural education. In Massachusetts the use of advisory councils preceded the passage of the "Smith-Hughes Act." Since 1911-1912 every Massachusetts department of vocational agriculture has been required by law to have an advisory council. However, in spite of early successful use of advisory groups in certain areas, they have not been widely used. In professional publications or meetings there has been very little discussion of them. Training in their use has not been given to new teachers. Only recently have detailed procedures been worked out for working with advisory groups. (23, p.12)

A council is a method for helping a public school to serve the public. By giving a council a real share in determining policies, the agricultural department of a school will be used to serve more people more fairly, and will provide more appropriate educational services. The teacher can obtain an estimate of the community agricultural situation from the council. A council can share with

professional people in arriving at an evaluation of the work of a department fairer than either laymen or professional workers could reach by working separately. Such a council can secure the co-ordination of the school with the activities of other useful agencies, and aid in getting co-operation among the groups sponsoring them. Probably no method of aiding teachers in service is superior to the advisory council.

A council is advisory not only to the teacher, but also to the school administrator and to the board of education. Council members have usually been more willing to promote adult education than teachers, administrators, and boards of education have been. (23, p.36) Many benefits can be obtained in the high school program in vocational agriculture through the use of an advisory committee.

XI. SUMMARY AND CONCLUSIONS

The history and development of agricultural education in the United States presents several important implications for a program of agricultural education in Canada. In view of what has been developed in the United States with excellent results, the following recommendations are presented.

1. Vocational education in agriculture should be recognized and developed as a definite part of the Canadian program of public education. The aims and objectives of this

phase of education must be in harmony with, and support the general objectives and philosophy of the whole public school education.

2. Except for a few separate schools, vocational agriculture should be presented in composite secondary schools of Canada. These schools would have general education as the chief aim, with optional courses in academic, commercial, agricultural, industrial, and home economic subjects. This can be done only by establishing larger secondary schools at central points in rural areas. Transportation would have to be provided for the student's daily journey to and from school. In some instances, properly organized dormitory facilities may be erected, but this is not favored.
3. The Department of Education for each province should have charge of its own agricultural education program. Each province would be stimulated, encouraged, and given a new interest in a national program of agricultural education in Canada, if generously subsidized by the federal government.
4. Agricultural education in the secondary schools of Canada should be vocational in type. Emphasis must be placed on practical farm experience as an essential part of training for farming. Carefully selected and planned programs of supervised farming programs should provide a rich source of experiences for persons

- seeking to become proficient in farming. Long-time supervised farming programs should be organized for each student. Incorporated in the objectives, should be the approved practices to be stressed, and efficiency factors to be achieved. These should be determined as a result of surveys, home visits, and student conferences. The teacher must develop understandings with all persons concerned with the student's program, assist parents and students in selecting suitable projects and activities, plan procedures to follow, approve practices to adopt, and carefully supervise the programs.
5. The student's home farm, and his class farming enterprises should be the foundation for his education in agriculture. Through associating his home farm problems with his day school work, the student's interest is aroused, and he is motivated to think effectively. Supervised farming programs, related information and activities, should be used as a basis for instruction. Subject matter should be organized to permit a graduation and distribution of course materials in keeping with successive levels of understanding as each student gains maturity and experience.

Instruction in farm mechanics should be an important part of the program in supervised farming. Many student abilities can be developed which are essential for

success in farming and farm-family living. The program of farm mechanics must be correlated with the other activities in the department, and with each boy's supervised farming program. The details of instruction should vary with the needs, interests, and abilities of the students.

6. Guidance will always be needed. The individual should understand his capacities, limitations, and abilities, and his relationships to individuals, home, and society. He needs to be aided in acquiring desirable personal qualities and characteristics. Personal-group relationships should be promoted, with emphasis upon home and family life as fundamental to the individual's growth and to the public welfare. Agricultural education offers a wonderful opportunity for individual guidance and the development of good character.
7. Special attention and assistance should be given to out-of-school young farmers and adult farmers. The young farmer has important problems of life to solve, and the adult farmer will always need organized instruction on efficiency measures of production and approved practices. Instruction for these two groups, especially for the out-of-school young farmer, may well supersede the organization of all-day classes in a community.
8. An organization for agricultural students should be established on a national scale, with each province

participating as a unit. A primary aim would be the development of agricultural leadership, co-operation, and citizenship. Each school in the Dominion with a department of vocational agriculture would have its own chapter. Each chapter should develop comprehensive programs throughout the year to stimulate student interest, provide many opportunities for worth-while experiences, help develop an effective training program in vocational agriculture, and develop community interest and understandings.

Conventions, and various types of contests should be held each year by the national and provincial organizations. Care must be taken that no chapter participates in too many contests, with the result of weakening the schools instructional program in agriculture.

If possible, it would be best to unite other agriculture organizations and clubs for youth, along with this organization. Failing this effort, strong co-operation should be given by all organizations concerned, so that no overlapping of work, or rivalry causing antagonism, may result.

A similar organization for out-of-school young farmers would be of great service to its members, as well as to Canada.

9. The approach to the development of a long-time, well

balanced program in vocational agriculture for the community, must begin with a survey and analysis of its needs, and with a selection of those activities that are considered relatively most important. A community program in which the people themselves have a part in determining needs and objectives, and in sharing responsibility for carrying them out, would give a sound basis for evaluating the agricultural instructor's job. Teachers of agriculture, as well as school administrators, should be taught how to use advisory councils.

10. The training of agriculture teachers requires special attention. In Canada, there is a great need for properly trained teachers of agriculture. Such teachers should obtain well-rounded courses of training in agriculture and education, and have had practical experience on a farm. Departments of agricultural education should be established in teacher-training institutions, in conjunction with colleges of agriculture. Opportunities for professional improvement should be offered through conferences, in-service training, field trips, reading, workshops, and graduate courses offered during the school year, or during short summer sessions.
11. Research should be made in the field of agricultural education for constructive recommendations of a

worthwhile program in Canada. The solution to many problems should be based on correct and clearly defined objectives supported by dependable data, scientifically collected, analysed, and interpreted.

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A P P E N D I X

SELECTING, PLANNING, AND DEVELOPING
SUPERVISED FARMING PROGRAMS

	Indicate year(s) taught or suggested time allotted.			
	Ag I	Ag II	Ag III	Ag IV
1. Acquainting boys with nature, scope and objectives of supervised farming programs.				
2. Making home farm surveys and farm maps.				
3. Considering possibilities and adaptability of different kinds of live stock and crop production projects.				
4. Selecting production enterprises - animal enterprises, crop enterprises.				
5. Selecting and planning improvement projects.				
6. Selecting and planning supplementary farm practices.				
7. Selecting and planning group or FFA cooperative farming projects and activities.				
8. Making and using budgets.				
9. Making financial business plans and agreements.				
10. Formulating project enterprise and supervised farming objectives.				
11. Making study and work calendars.				
12. Explaining and keeping project records; project record book.				
13. Analyzing, summarizing and using project records. a. Seasonal, periodic and monthly records. b. Year end records.				
14. Determine and list important jobs involved in conducting project.				
15. Making and writing project job and farm practice plans.				
16. Using class notebooks or project record books for writing project plans. Show relation of these two kinds of books.				
17. Making and writing up tentative long time supervised farming programs.				
18. Revising and making plans for continuation projects.				
19. Developing a list of approved practices for jobs or objectives in each kind of production project.				
20. Judging and evaluating projects of class members. Planning and conducting project tours. Better farming contests.				
TOTAL				

A LONG-TIME JOB OUTLINE

<u>Enterprise or Major Unit --</u> Jobs or (Problems and Objectives)	Indicate the year(s) job is to be taught by a dash (-) or esti- mated number of hours to each			
	Ag I	Ag II	Ag III	Ag IV
1.				
2.				
Etc.				

YEARLY AND LONG TIME COURSE
AND CLASS INSTRUCTION OUTLINES

List of Major Units and Farm and Project Enterprises to be taught.	Weeks Allotted			
	Ag I	Ag II	Ag III	Ag IV
I. Getting boys acquainted with and started in vocational agriculture and FFA program.				
II. Selecting, planning, and developing supervised farming programs.				
1. Acquainting boys with nature, scope and objectives of supervised farming programs.				
2. Etc.				
III. Class FFA Instruction and activities. (Examples)				
1. Developing a program of work.				
2. Planning FFA Banquet.				
3. Etc.				
IV. Teaching production enterprise. (Both crop and animal; farm and project).				
1. Dairy				
2. Alfalfa				
3. Etc.				
V. Farm Shop and Agricultural Engineering				
1. Fitting and sharpening tools.				
2. Rural electrification.				
3. Farm power and machinery.				
4. Etc.				
VI. Farm Management Problems				
1. Developing the feed crop program, selecting feed crop enterprises, kind and size.				
2. Selecting cash crop enterprises.				
3. Making farm layout.				
4. Etc.				
VII. Other Major Units				
1. Finance, Credit				
2. Soils				
3. Feeds and feeding				
4. Etc.				
TOTAL				

HORIZONTAL AND MONTHLY LAYOUT OF TEACHING JOBS FOR A YEAR'S WORK IN _____

Showing the jobs to be taught in each enterprise or major unit and the month in which each job is to be taught.

Enterprise	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	(Summer)		Aug
										June	July	

Etc.

AGRICULTURE _____ COURSE CALENDAR _____

- Sept. 1. Selecting projects--3 days.
2. Learning how to keep records--3 days.
3. Learning FFA organization and purposes--3 days.
4. Etc.

Oct.

Nov.

Dec.

Jan.

Feb.

March

April

May

June

July

August

SUGGESTIVE TYPES OF WORK, TEACHING AIDS
AND ACTIVITIES TO TAKE UP UNDER JOBS IN
MAJOR UNITS OF CLASS INSTRUCTION

UNIT 1 -- Selecting, planning, and developing supervised farming programs.

JOB 1. Acquainting boys with nature, scope, and objectives of supervised farming programs.

- a. Have advanced or former FFA boys present on blackboard or chart his complete farming program by years and accomplishments.
- b. Point out and explain from these examples the different phases or kinds of farm practice in the FFA boys farming program -- production and improvement projects, supplementary practices, etc.
- c. Visit home farms of boys having different kinds of supervised farming programs. Point out and discuss what has been made of home farm opportunities and conditions.
- d. Present project programs of boys who entered the "better farming contests."
- e. Point out and discuss cases showing how project programs helped boys to get started in farming. Also other values, the need for relating project studies and problems to class instruction.

JOB 2. Making home farm surveys and maps (a means of studying the home farm and project selection).

- a. Prepare farm survey blanks or use duplicate copies of those in project record books.
- b. Take boys to a farm and with farmer make a survey of his farm.
- c. Have boys with their dads make survey of home farms; study and check these and have them copied in record book.
- d. Have boys put map in record book, following discussion of use and methods of making maps.
- e. Make class farm survey summaries, and supply a copy to each boy. Study and bring out different types or kinds of farming and possible reasons.

JOB 3. Considering possibilities and adaptability of different kinds of livestock and crop production projects.

- a. Discuss possible advantages and disadvantages of different crop and livestock enterprises for (1) community and (2) different local home farms.

- b. Have a few boys, using blackboard or other means of present farm survey, tell what project enterprises they might select and why. (Note - boys, instructor and parents will discuss this matter individually and co-operatively in making final selection).

JOB 4, 5, 6. Selecting (1) production projects, (2) improvement projects, (3) supplementary farm practices.

- a. Have boys present proposed yearly and long-time supervised farming programs to class. Use blackboard or chart to present farm survey and map, and proposed project program. Have them give reasons.
- b. Have class discuss advantages and disadvantages of proposed project selection plans. (Guard against personal embarrassment).
- c. Use any budget studies that can be made or have been made to bring out cash costs, possible returns or profits; favorable or unfavorable factors.
- d. Have members of FFA supervised farm practice committee discuss questions as to size and quality of projects, requirements for degrees. Keystone chapter, or possible ways of FFA financing.
- e. As and when supervised farming programs are selected make chart showing kind and scope of projects selected by each boy.
- f. Boys record yearly and long-time selection of farming plans in their project record books. Use appropriate forms.

JOB 10. Keeping milk production records.

- a. Discuss need and value of individual cow production records.
- b. Use dairy herd improvement records to show relation of yield or production to costs and income.
- c. Have boys prepare or study sample milk production sheet for use in home herd.
- d. Encourage or urge boys to weigh and record daily production of each cow in home herd (once a month) and to test milk of each cow monthly.
- e. Explain nature of work of dairy herd improvement associations.
- f. Explain the owner-sampler method in Oregon.
- g. Discuss feasibility of FFA cow testing, cooperative cow testing and relation to other dairy improvement agencies.
- h. Check and discuss record, problems and results (1) monthly and (2) summarize and analyze results at end of year.
- i. At parent, owner, banquet, grange meetings have FFA committee in charge report results of cow testing and dairy herd improvement.

UNIT 5 -- FFA organization problems and activities.**JOB 11. Developing the local program of work.**

- a. Review last years program.
- b. Determine achievements and accomplishments.
- c. Discuss different phases, needs and objectives in the local yearly and long-time program of work, for the community, and determine from this study, how the local FFA chapter may assist objectives of the local community program.
- d. Review FFA state program for suggestions. Study state calendar.
- e. Discuss and utilize problems and activities as they come up in the course of study and class discussion for suggestions, objectives and activities to include in the local chapter program.
- f. Have members from each class represented on the different local FFA chapter committees.
- g. Determine changes and improvements that should be made in last years program.
- h. See that local FFA program is planned and developed in relation to all phases of the course of study, class instruction and the instructor's and community program.
Don't make it a quick, separate and superficial job.

POULTRY PRODUCTION
(sample job and suggested activities)

JOB 10. Culling the laying flock. Suggested activities:

1. Display a chart which show fluctuations in egg prices from month to month.
2. Lead a discussion on the importance of securing a high rate of egg production. Show how a few low-producing hens will decrease the egg-laying percentage of the flock.
3. Have boys secure information on current production in their home flocks and compute the daily egg-laying percentage. Discuss what might be done to improve egg production. Discuss need for learning how to cull.
4. With the assistance of the class, list some problems and questions for further study, such as:
 - What is culling?
 - What is a good layer like?
 - What is a poor layer like?

Provide references and time for supervised study. Utilize these materials in the discussion on the following day.
5. Arrange to borrow four hens for class use. Provide hens which represent a range of characteristics used in culling, with at least one hen definitely good and one a cull. Show boys how to hold hens for inspection. Choose around the class (formed in a circle). Have them decide which one they would keep and which they would cull, and be prepared to tell why. From this discussion derive a list of characteristics which they should consider in culling. Have them apply this list to the remaining hens.
6. Develop a further assignment based on questions arising from the preceding discussion and laboratory activities, such as:
 - In what order is pigment lost?
 - How can we tell how long a hen has been molting?
7. Bring several more hens into the laboratory, with varying gradations in egg-laying ability. Have each boy inspect these hens and tell which ones to keep and which to cull. Check the boys on their reasons. Help them interpret such characteristics as molt, pigmentation changes, body changes, head changes, and general vigor and health. Emphasize the importance of using all characteristics for evaluating each hen.

8. Help boys discover problems needing further study, and provide references and time as needed for this study.
9. Plan and carry out a field trip to cull a small flock of hens. Make necessary arrangements beforehand so hens will be shut up and equipment available for catching them. Start out by providing each boy with a hen, with instructor checking decision of boy on whether to keep or to cull. Continue until culling is finished.
10. If possible, have the class cull a fairly large flock, with increasing responsibility placed on the boys for making decisions. Provide special assistance as seems necessary.
11. Encourage each boy to cull the home flock and have them report as this is done. (If it seems desirable, instructor should contact the parents to secure their co-operation. In some cases, the instructor should plan a home-farm visit when the culling is in progress, and give additional instruction as needed).
12. Prior to culling the home flock, encourage the boy and his father or mother to keep a simple egg record which shows the total eggs produced daily. By using the number of hens in the flock for a given day, the daily egg-laying percentage is easily computed. By means of this information, progress in the flock is shown, and changes due to culling and other practices.
13. Later in the year, have the students consider the importance of additional culling. Utilize records of production, from time to time, to determine when this might be desirable.
14. The following fall give further training in culling, as needed for culling pullets before laying and after the laying season starts.

The following is a guide which may be used in locating Jobs, Problems, Difficulties, Situations needing attention and requiring On-the-Job and On-the-Farm Instruction.

I Farm Management

- A. Preliminary farm survey (looking over farm with trainee).
- B. The annual farm plan (prepared each year):
 1. Includes farm inventory
 2. Includes financial statement
 3. Includes budget of income and expenses
 4. Includes cropping program:
 - a. Selection and adaptability with respect to farm and soil type
 - b. Methods of disposal: (1) Marketing facilities (2) Livestock feed requirements
 - c. Estimate of yields and production
 - d. Availability of machinery, equipment, and labor
 5. Includes livestock program:
 - a. Selection and adaptability of livestock enterprises with respect to:
 1. Availability of feed produced on the farm
 2. Marketing facilities for:
 - a. Livestock
 - b. Livestock products
 6. Is used as one basis to determine probable degree of success
 7. Aids in determining jobs, problems, etc. requiring special or intensive on-farm instruction
- C. Prepare a list of enterprise jobs and practices to work out in carrying out a good farm program
- D. The long time farm plan includes: (j = jobs -- p = practices)
 1. Soil management:
 - a. Improving fertility. (j and p)
 - b. Controlling erosion. (j and p)
 - c. Relamation (clearing or leveling).
 - d. Irrigation and drainage. (j and p)
 - e. Improving structure. (j and p)
 2. Crop management:
 - a. Crop improvement plans (j and p)
 1. Seed selection and certification
 2. Weed control methods
 - b. Crop rotation plans (j and p)
 1. For soil improvement
 2. For disease and insect control
 3. For success of livestock enterprises

- c. Storage: (1) Facilities (2) For feed (3) For market (j and p)
 - d. Marketing: (1) For cash (2) By contract (3) Through livestock (j and p)
 - e. Efficient use of machinery, equipment and labor
3. Livestock management:
- a. Improving quality through:
 - 1. Use of purebred sires
 - 2. Selection and buying
 - 3. Culling and marketing
 - b. Increasing volume or quantity of: (1) Meat production (2) Egg production (3) Dairy production (4) Wool production (j and p)
 - c. Animal nutrition: (1) Winter feeding (2) Summer feeding and pasture management (J and p)
 - d. Sanitation and disease control (j and p)
 - e. Efficient use of equipment and labor
 - f. Marketing: (1) Breeding stock (2) Feeder stock (3) Fat stock (4) Livestock products (j and p)
4. Machinery and equipment management:
- a. Selecting and purchasing: (1) Investment per acre? (2) New? (3) Used? (j and p)
 - b. Storage (j and p)
 - c. Maintenance and operation (j and p)
 - d. Repair and construction (j and p)
5. Major improvements (j and p)
- a. The farm home: (1) Maintenance (what?) (2) Repair (what and when?) (3) Construction (what, when, where?)
 - b. Farm buildings: (1) Maintenance (what?) (2) Repair (what and when?) (3) Construction (what, when, where?)
 - c. Fences: (1) Maintenance, (2) Repair, (3) Construction
 - d. Other improvements (i.e., roads, bridges, head boxes and drops)
6. Improving the farm layout:
- a. Prepare map as of present date
 - b. Prepare map of farm as it should be laid out as an objective
 - c. Use Soil Conservation Service map when available
7. Calendaring major jobs by the year (e.g., 1949 - seed new pasture on east 20 acres; 1953 - plow and seed some field to corn; 1950 - lay new tile drainage system)

II Farm Business Management:

- A. Farm records and analysis of farm business:
 - 1. Use an approved record book: (a) Accrual or inventory basis (b) Cash basis
 - 2. Keep daily records of: (a) Income and expenses (b) Breeding (c) Production (d) Hired labor
 - 3. Keep annual record of:
 - a. Inventory increase and decrease
 - b. Financial statement
 - c. Depreciation
 - d. Interest on investment
 - 4. Summarize at close of each year
- B. Farm financing: 1. Credit sources 2. Credit problems: (a) Regarding existing loans (b) Regarding proposed loans
 - (1) For operating expenses (2) For major improvements (3) Money values and savings
- C. Buying feeds, seed, and supplies
- D. Legal aspects of farm business

III. Home Management and Personal Improvement:

- A. Adequate live-at-home program
 - 1. Food conservation
 - a. Producing on the farm
 - b. Preserving and storing
 - 1. Methods
 - 2. Facilities
 - 2. Fuel Conservation: (a) Producing on the farm (b) Economic use
- B. Farm home conveniences:
 - 1. Water supply: (a) Adequate (b) Sanitary (c) Convenient
 - 2. Light and power: (a) Adequate (b) Safe (c) Convenient
 - 3. Adequate heating system
 - 4. Health and sanitation
 - 5. Adequate housing for family
- C. FARM SAFETY (jobs and problems): (1) Fire hazards (2) Accident hazards (3) Security of dangerous animals
- D. Budgeting family and household operating expenses
- E. Farmstead layout and beautification
- F. Education, training and experience
 - 1. Farmer's age and interests
 - 2. Wife's and/or family's interests

IV Critical Periods and Emergencies:

- A. Those that can be foreseen: (1) Labor requirements (2) Harvesting
- B. Those that cannot be foreseen: (1) Power cut off (2) Storm damage (3) Illness

- V. Co-ordinating Off-Farm With On-Farm Instruction
 - A. Know the farmer and his problems
 - B. Know the farm and its problems
 - C. Prompt follow-up of class instruction applicable to on-farm instruction
 - D. Teach timely courses in class as jobs occur on the farm
 - E. Keep up with current developments affecting agriculture
 - F. Close observation and "follow through instruction" on improved and approved jobs and practices
 - G. Organize Young Farmer group into a co-operative association for business and social purposes:
 - (1) To develop business management
 - (2) To develop ability and leadership

How to locate Jobs, Problems, Difficulties, Situations needing attention and requiring On-the-Job and On-the-Farm Instruction.

1. Use the guide
2. Landlord, employer-trainer, parents
3. Veterinarians
4. Crop Improvement Association secretaries
5. Dairy Herd Improvement Association secretaries
6. Farmer Co-operative Association managers
7. Community leaders and experienced farmers
8. Extension Service: (a) County Agents (b) Extension Specialists (c) County planning programs
9. Experiment Station superintendents
10. Soil Conservation Service technicians
11. A.A.A. personnel
12. Forest Service
13. Farm credit agencies: (a) Local banks (b) Production Credit Association (c) National Farm Loan Association (d) Farmers Home Administration
14. Local Advisory Committee
15. Analyzing and summarizing enterprise jobs, practices and problems at end of each year and determine future program of work

XCHECK SHEET

Suggested form to be used to list jobs, practices, problems, difficulties, situations, etc., needing attention and requiring on-the-job and on-the-farm instruction.

List jobs, practices, problems, etc.	Work time allotted	Date work started	Date work completed
Map of farm Analyzing and summarizing year's records Pruning orchard Leveling south forty Culling laying hens			

^x One sheet to be used for each trainee and kept in a field folder with instructor's comments, observations, and notes.

CONDUCTING ON-FARM INSTRUCTION

Methods of Individual On-Farm Instruction

Correlate on-farm instruction with off-farm instruction.

Use current publications (bulletins, magazines, text books) material.

Thoroughly explain the farm training program:
What is expected of the farmer? What is expected of the instructor?

In the event the instructor does not know or is not sure of a recommendation, he should admit it but promptly mail or phone information as soon as it is available.

Keep a current record of jobs and practices to be done by each farmer during each year. Follow up on progress made between visits at time of each visit. Keep a record of all advice and recommendations offered in order to efficiently follow through. This may be done with the aid of a job check sheet and running record of progress made. Such records must be kept daily and may be kept in individual field folders.

Keep abreast of current farm practice recommendations by having groups attend field tours and demonstrations sponsored by the Extension Service, Experiment Stations, Soil Conservation Service, and other agencies and organizations.

Test class at start to bring out questions for discussion to help locate jobs and problems. Follow up with individual on-farm instruction.

Gain the trainee's confidence and respect by observing the following "Do's and Don't's:"

1. Do know what instruction you are going to give before arriving at the farm.
Don't arrive with only the hope in mind that some problem will arise to make your visit worth-while.
2. Do discuss urgent problems and observe progress.
Don't waste time discussing unimportant items.

3. Do show interest in the farmer's welfare and farm. Don't argue.
4. Do offer suggestions and advice. Don't give orders or act tough.
5. Do be attentive, courteous, and friendly. Don't do all the talking.
6. Do dress appropriately and be neat. Don't be too well dressed.
7. Don't keep farmer from urgent work. Do permit him to continue as soon as possible. Your time can be well spent by going over the farm alone to observe jobs accomplished or jobs requiring attention.
8. Do know your facts. Don't guess.
9. Do spend as much time with the farmer as is necessary (do not disregard item 7 above). Don't be in a big hurry to leave.
10. Do schedule your visits in advance if possible. Don't arrive unexpectedly. Trainee may either be elsewhere on business, or too busy to give sufficient time.
11. Do encourage farmer trainee. Give him full credit for following improved and approved practices. Don't criticize. This will discourage him.
12. Do refer to your check sheet of jobs, problems, practices, etc., which are being completed, or which require attention.

Follow-Up:

An effective follow-up program of instruction must be used or the foregoing suggestions and recommendations will prove of little or no value.

Methods of Handling Field Work or Group Work as a Phase of On-Farm Instruction:

1. Field trip must be organized and planned in advance.

2. Instructor should contact the farmer, or organization, where the field trip is to be taken and make necessary arrangements.
3. The Young Farmers must be prepared for the field trip.
4. The Young Farmers must know what to look for and what is expected of them.
5. Do not take a field trip not relating to problems and enterprises.
6. The field trip must be timely.
7. After a job has been studied in class, follow-up with a group field demonstration, then give each Young Farmer on-farm instruction in doing the job.
8. Do not take a field trip if it is not organized, planned, and has a purpose.
9. Organize a class field trip to Young Farmer's farm. Young Farmers actually see each others problems and approved practices.
10. Ample time should be allowed for a field trip to completely cover the situation.
11. Notebooks should be used on the field trip.
12. Young Farmers must be encouraged to ask questions and take an active part.
13. A follow-up review should be made of the field trip.
14. Field trips should be made in small groups.
15. Make a map of farm showing field, size, current and last year's crops, soils, etc.

SUGGESTED STEPS OR PHASES IN CONFERENCE LEADING

1. Stating or defining a proposed job or problem. This should be in terms of actual farm jobs or problems as leader might expect farmers to state it.
2. Analysing the job.
3. Assembling experience.
4. Providing supplementary factual data and information.
5. Selecting and evaluating experience and factual data.
6. Making or coming to decisions, conclusions or approved practices.
7. Making a working plan.
8. Putting plan into operation.
9. Follow up work and checking results.

INSTRUCTOR'S PREPARATION FOR CONFERENCE LEADING

The steps in conference leading as listed above suggest the nature and scope of the instructor's preparation for conference leading. In conference leading the instructor does not prepare an organized outline of subject matter which he plans to put over with the group. However, throughout he is primarily responsible for getting participation of the group, keeping in mind the steps of conference leading and also he is responsible for supplying information that will supplement the experience of the group. Supplementary information may be provided by conference leader from experimental sources or from outside specialists and by farmers who are recognized authorities in particular farming enterprises.

It is much better to lead the farmers to discover and state their own problems rather than to have these formulated by the conference leader or by an outsider. Through home farm visitation and by individual conference with farmers, the conference leader should be fairly well aware of the problems that may be of concern to the members of the group. Getting the farmers to think through their problems with all important factors considered and to make their own evaluation may be more important than coming to definite conclusions or to the information that develops through exchange of farmer experience or from supplementary sources.

Before preparing a tentative conference procedure plan or operating sheet, the conference leader should have a tentative analysis worked out for the job needing

consideration including an analysis of the main points or factors and references to specific factual material that will be needed for discussing and applying the factors. He should be thoroughly familiar also with the situation relating to the job or problem in the locality and on the farms of the members of the group. He should have also available in well organized form supplementary factual data upon which he can draw as need arises.

The conference leader's plan or operating sheet should consist of notes for his own use with reference to methods he proposes to use in the following:

1. Assisting the group to define the job.
2. Presenting the local situation and calling attention to the importance of the job.
3. Getting the farmers reactions as to the need for doing something about the job.
4. Pulling out the "factors or questions to be considered" and the "decisions to be made." The conference leader should use his own previous job analysis as a guide.
5. Assembling facts from the farmers experience.
6. Presenting facts from other sources.
7. Assisting the group to select and evaluate the facts.
8. Assisting members of the group to think through their individual situations and to arrive at definite conclusions as to what to do about the job.
9. Securing group action where advisable or necessary.

SITUATIONS AND PROBLEMS THAT MUST BE MET
AND HANDLED BY THE CONFERENCE LEADER

Experience has shown that there are certain typical situations which a conference leader is likely to meet and which he must handle. Some of the more common of these are listed below:

1. Establishing and holding the interest of the group.
2. Securing participation by all members of the conference group.
3. Holding the confidence of the members of the conference group.
4. Interspersing information or instruction with conference procedure.
5. Noting ideas as they come out of the discussion.
6. Keeping pace with the rapid flow of points.
7. Starting a discussion when necessary.
8. Checking up on the situation as the work progresses.
9. Adapting plans to situations as they develop.
10. Preparation of supplementary material.
11. Following up the results of the conference in reference to the changed practices of the individual members.
12. The preparation of reports or summaries of the conference discussions.

THE FOLLOWING ARE SOME OF THE COMMON AND SPECIFIC
DIFFICULT SITUATIONS ENCOUNTERED IN CONFERENCE LEADING

1. Two men do all the talking.
2. Group goes dead; no one talks; no one interested.
3. Everyone talks at once.
4. Some members of group go to sleep.
5. Two members of group have personal row on some subject.
6. Group gets off the subject.
7. One member of group persists in having irrelevant subjects discussed.
8. Group wants to shift to another job or subject.
9. Member of group asks conference leader for his reactions.
10. Man starts to argue with conference leader.
11. Conference leader asks a question which results in committing the group to a certain opinion or course of action, thereby precluding further discussion.
12. Leader uses a prepared check list when he should have pulled items from the group.

13. Leader shows that he has a mistaken idea of conference procedure; for example, he asks the men to do outside work.
14. Group thinks leader is trying to put something over on them.
15. Group lacks confidence in leader's ability.
16. Leader does not know when discussion has gone far enough.
17. Leader offends member by abruptly cutting him off in discussion or by not recognizing his contribution.
18. A clique that wants to run things is formed within the group.
19. Leader does not distinguish between a lull in discussion for the purpose of thinking and a situation where subject is all talked out and group is no longer interested.
20. Leader is too quick to give information.
21. Leader resorts to instructing process when not necessary.
22. Leader asks too many questions.
23. Leader does too much talking.
24. Leader advances own opinions.
25. Leader holds to original objective instead of shifting as developments indicate.
26. Conflicting evidence is submitted.
27. Position taken by group is contrary to what leader knows to be correct.
28. Leader encourages group to guess when they have no adequate basis of knowledge or experience.
29. Group does not want to defer action until sufficient facts are secured.
30. Members of group begin to drift away from meetings.