A CASE STUDY OF THE DEVELOPMENT AND EVALUATION OF A PROGRAM OF AGRICULTURAL IMPROVEMENT WITH ADULTS IN THE OLIVET, MICHIGAN, COMMUNITY

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A CASE STUDY OF THE DEVELOPMENT AND EVALUATION OF A PROGRAM OF AGRICULTURAL IMPROVEMENT WITH ADULTS IN THE OLIVET, MICHIGAN, COMMUNITY

BY

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

Adult education is not new in this country. The New England town meeting, the first lyceum in Massachusetts in 1826, the Chautauqua Institution, the University Extension Movement which started during the last quarter of the last century, the impetus given to popular education by the Carnegie Libraries together with the voluntary vocational and non-vocational enterprises sponsored by the tax-supported school systems were all forms of adult education covering the span of this nation's history.[1]

The Smith Lever act, (Extension Service) of 1914 and the Smith-Hughes act (Vocational Education) of 1918 included sections that provided for work with adults.

In June of 1924 the term "adult education" became established in the United States when the Carnegie Corporation of New York summoned its first conference for the education of adults.[2]

The Problem

Statement of the problem. The problem is to describe the development of a program of agricultural improvement

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[1] Morse Adams Cartwright, Ten Years of Adult Education. New York: The MacMillan Company, 1935. p. 10.

[2] Ibid., p.3.

through adult education in the Olivet community and to evaluate the results. This program is a part of the Olivet public school educational activities.

The program in the Olivet community has four phases: (1) To determine the important agricultural problems that need attention, (2) to develop a plan that will improve these problem areas, (3) to carry out the plans and (4) to evaluate the results.

Purpose of the study. The purpose of this study is to describe methods and techniques used in developing the adult education program in agriculture at Olivet. The program is being developed largely with the aid of local people and existing agricultural programs and agencies which may be local, state, or federal. Another important purpose is to show how the public school can be more functional in improving agriculture and building community solidarity.

Scope of the study. The program, started in the Olivet community, is planned for at least three years. However, the present study covers a period of ten months beginning July 1, 1946 and ending May 1, 1947. The study deals with the most important problem areas in agriculture as decided by procedures described in Chapter IV.

Definition of Terms Used

Agricultural improvement. In this study, agricultural improvement is considered to be any change for the better in

farming methods, farm production, farm and home equipment, rural living conditions, and attitudes of rural people.

Olivet community or Olivet area. This study is confined to the rural area around Olivet from which either or both grade and high school pupils come to attend the Walton Township Unit School, which is the public school in Olivet. This school is a Township Unit and Rural Agricultural School for the township of Walton in the southwestern part of Eaton county. However, students attend this school from parts of six adjoining townships. This is discussed in more detail in Chapter III.

Adult education. Bryson[3] terms adult education as including all the activities with an educational purpose that are carried on by people in the ordinary business of life. He says that age alone will not suffice to mark the limits of its clientele. An adult in education is one who has other business in the world but uses part of his time and energy to acquire more intellectual equipment. According to Bryson, adult education is voluntary, self-directed, and based on felt needs in a vocation or in living. For Olivet the program is based to a large extent on the vocational aspects of agriculture, but does not exclude the social phases. The program is for both men and women out of school.

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[3] Lyman Bryson, Adult Education. Chicago: American Book Company, 1936. p. 3.

Setting for the Study

To the casual observer, the farmers in the Olivet area show varying degrees of prosperity. The whole area might be classed as about average. Some visible indication of soil problems are readily noted although the seriousness of these problems may be obscure. The farm buildings in general are in need of paint and repair, as is readily noted in driving around in the community.

The public school in Olivet is a modern, well-built structure. The ability of the school program to be functional in the rural sections would not be known to a person driving through town.

Olivet public school has the conventional school program from the kindergarten through the twelfth grade. Adult education was started in 1939 and was greatly expanded during World War II. No complete appraisal was made of the results of this work. More details on the Olivet community are given in Chapter III under Historical Data.

This study is the first one to be conducted in the Olivet community. In other communities, similar in size to Olivet, studies have been conducted to determine needs for a program of adult education in agriculture. Information of value in establishing the adult education program at Olivet has been secured from reports of these studies. Some of these studies are described in Chapter II.

CHAPTER II

REVIEW OF LITERATURE

Before setting up the program for the Olivet area, considerable information was gathered from studies on adult education in agriculture conducted by other people in various communities throughout the United States. These studies revealed many ideas for planning, carrying out, and evaluating a program for adult education in agriculture in the Olivet area.

Studies Reviewed

A five-year study of program planning and evaluation closely resembling the Olivet study was conducted by H. M. Hamlin, professor of education, University of Illinois, Urbana, Illinois. Mr. Hamlin worked with six cooperating schools in Illinois, whereas the Olivet study deals with one community. The original purposes of the Hamlin study are as follows:

1. To use a general advisory group for policy making.
2. To study the needs of each community for education in agriculture.
3. To plan a tailor-made program with specific objectives for each community.
4. To evaluate outcomes in terms of the chosen objectives.

5. To work out carefully the relationship of the department of agriculture with the community school.[1]

Four sources of community data were used to discover needs: (1) estimates of the community situation by council members, (2) community surveys, (3) farm records and (4) census reports.

Listed below are the outcomes of the first year of the five-year experiment in Illinois.[2]

1. A general advisory council had been set up, usually of nine persons, and was functioning rather effectively.
2. Community boundaries had been determined.
3. Services rendered by the agricultural department had been examined and extended.
4. Communities had studied and determined their special needs.
5. Objectives of the community program of agricultural education had been set up.
6. A start had been made toward the close of the year in planning for evaluation of outcomes.

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[1] H. M. Hamlin, "Three Years of Program Planning and Evaluation," Agricultural Education Magazine, 18:36, Sept., 1943.

[2] H. M. Hamlin, "One Year of Program Planning and Evaluation," Agricultural Education Magazine, 16:54, Sept., 1943.

Hamlin[3] states that in general the plan of the study was found to be sound. Difficulties were encountered only in departures from the plan. He states also that an ideal arrangement for program planning and evaluation will not be accomplished at the end of the five-year period but that at the end of the first year the communities had something better than anyone else has proposed.

When summing up at the end of the third year of the five-year experiment, one of the cooperating school principals had this to say about the program.[4]

> "It is obvious to me that the advisory council is an excellent public relations device. The participation of farm leaders on this council develops a great deal of interest in and loyalty to the school. I can see very clearly that, over a period of years, farm families will be led to a much higher standard of living through the use of more intelligent practices in agriculture."

Hamlin[5] states that on the whole people were very well satisfied with the results which had been secured.

M. J. Scott, teacher of vocational agriculture at Fisher, Illinois, is the teacher in one of the cooperating schools in Hamlin's study. Mr. Scott[6] says that community

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[3] Ibid., p. 55.

[4] H. M. Hamlin, "Three Years of Program Planning and Evaluation," Agricultural Education Magazine, 18:36, Sept., 1945.

[5] Ibid., p. 68.

[6] M. J. Scott, "Community Study Serves as a Basis for an Improved Program," Agricultural Education Magazine, 19:145, Feb., 1947.

study gives direction and impetus to worthwhile educational activities. He further states that such a study aids the teacher in ridding himself from the shackles of many unimportant details which take so much of his time. Furthermore, by using local people he is aided in finding "blind spots" in the agricultural program and establishing a functional program with specific objectives.

Hamlin's studies in community planning and evaluation are the most recent available as the five-year experiment was started in 1941.

Another five-year study and program was conducted at Greenville, South Carolina, under the supervision of Edmund de S. Brunner, with C. B. Loomis as the county director.[7] This was a county-wide project including both the rural and urban people. The project was a large undertaking with an $80,000 grant in 1936 from the Rockefeller Foundation to the Greenville, South Carolina, County Council for Community Development. The whole program was discontinued at the end of the five-year period when the Foundation did not renew the grant and local people refused to finance the project. Many significant outcomes were realized. Some local projects that required little finance continued where local unpaid leadership was used. Brunner[8] reported that community

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[7] Edmund de S. Brunner, Community Organization and Adult Education A Five Year Experiment, Chapel Hill: University of North Carolina Press, 1942. 110 pp.

[8] Ibid., p. 68.

development was greatest in one area where the community council was used to the greatest extent.

Harold L. Noakes[9] completed a study in 1940 to determine interests and needs of adult farmers and the findings were put into use. The purpose of the study was to determine the type of adult education program best suited to the needs of the people. Courses were then arranged to meet the needs of the people each year as shown by an analysis of the information collected.

James E. Woodhull[10] completed some work in 1940 that included an analysis of the needs and interests of adult farmers in a community. The educational program was then prepared to meet those needs. This study provided a basis for a program but there is no statement as to whether the information gathered was put into use.

Peter E. Pasto[11] conducted a study in New York State to determine the interests and needs of adults in a rural community but no action was taken in building a program based on interests and needs of the people.

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9 Harold Leslie Noakes, "A Study of Adult Education in Southern Cayuga County as Organized at Moravia High School," Special Study, M.S. in Education, 1940, Cornell University, Rural Education, Cornell University, Ithaca, New York, 86 pp.

10 James Edward Woodhull, "An Analysis of Education Needs in a Vermont Community," Thesis, M.S., 1940, Cornell University, Library, Cornell University, Ithaca, New York, 52 pp.

11 Peter Edward Pasto, "Meeting Community Needs Through the Central Rural School," Special Study, M.S. in Education, 1940, Cornell University, Rural Education, Cornell University, Ithaca, New York, 80 pp.

In Iowa, Miller[12] conducted a study to discover how the different agricultural agencies of the community were succeeding in reaching adults and to discover the response of these adults to the efforts of the agencies.

It was found that very little organized adult education was conducted by the schools. The extension service was conducting group meetings and some of the farm organizations were carrying on some activities that filled social needs.

A study conducted in North Carolina was similar to Hamlin's experiment.[13] In 1939, Callihan completed work on the problem of determining the educational needs for rural adult education. This included principles which guide the development of an adult program in agriculture, the major problems realized in conducting a program, and the procedures employed in organizing and conducting the adult education program. The chief objective was to raise the living level of the whole community.

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12 Arthur Simon Miller, "Adult Education Activities in Dallas County Iowa," Thesis, M.S., 1937, Iowa State College, Library, Iowa State College, Ames, Iowa, 114 pp.

13 William Baufort Callihan, "A Study of Adult Education in Agriculture," Thesis, M.S., 1939, North Carolina State College of Agriculture and Engineering, Library, North Carolina State College, Raleigh, North Carolina, 125 pp.

In a functioning program of a non-vocational nature for rural people, Lyle[14] found that programs were more successful where people discovered their needs and planned their own activities through a community council.

In Nova Scotia, Voght[15] found the same thing as Hamlin, Brunner, and others in that adult education is a movement of the people. According to Voght the program was most successful where people in local communities decided their own needs and built their own program.

Loomis and Grisham,[16] in a New Mexico experiment found that all aspects of the development program must be related to felt needs. This again shows that a purely statistical analysis of a community by an outsider may not be successfully used in community development. It is with the help of the statistical analysis that local people can decide what to do. That local people of all classes and groups must assist in the securing and analysis of data is emphasized also by Ogden and Ogden.[17]

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14 Mary Stewart Lyle, "A Program of Adult Education to Promote Democracy in Home and Family Life of an Iowa Community," Abstracts of Doctoral Dissertations, Number 40, Columbus, Ohio: Graduate School, Department of Education, Ohio State University, 1939, 122 pp.

15 Paul L. Voght, "Adult Education in Eastern Nova Scotia," Rural America, 17:6, Dec., 1939.

16 Charles B. Loomis and Glen Grisham, "The New Mexican Experiment in Village Rehabilitation," Applied Anthropology, 2:13, June, 1943.

17 Jean and Jess Ogden, "Present Trends in Community Organization," Adult Education Journal, 4:2, Jan., 1944.

Group action is called for in locating and solving community problems, according to Lindstrom.[18]

Summary of Studies Reviewed and Relationship to the Olivet Study

1. For the following reasons the Olivet study closely resembles the recent studies by Hamlin in Illinois:
   a. Local people assisted in planning the program.
   b. Local people contributed from their experience and observation in adding to the basic data.
   c. Local people studied the basic data and formulated the objectives for the program.
   d. Objectives were kept few in number and were simply stated.
   e. The objectives were stated so that evaluation could be made in terms of the objectives.
   f. Local people aided in deciding "where we are now" so that progress could be measured.
   g. A program was planned and executed.
   h. Local leadership was used to carry out certain phases of the program.
   i. Evaluation was made in terms of the objectives established at the beginning of the project.

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[18] D. E. Lindstrom, Knowing Your Community. Department of Agriculture Economics, College of Agriculture, University of Illinois, Urbana. Monograph R.S.E. 83, p. 1.

j. Local people were largely responsible for making the evaluation.

k. Each year's program was in part planned following the evaluation of the preceding year's program.

The difference between the Hamlin studies and the Olivet study exists in the scope of the program. Hamlin's work was with the total program of vocational agriculture which included the all-day, part-time, and adult classes. The Olivet study deals with the adult aspects of rural education which includes those persons out of school.

2. The program of the Greenville County Council for Community Development, as directed by C. B. Loomis, had certain phases that were similar to the Olivet program. These are:

a. An advisory council was used in local rural communities to aid in planning and directing the adult education program.

b. The program was carried out with the aid of the plan.

The outstanding differences between the two programs are that, in the Greenville project, no systematic evaluation was carried out, and non-vocational subjects were preferred more than vocational subjects.

3. Noakes, in New York State, reported on a program that is closely related to the Hamlin and Olivet programs. His report on the Moravia High Schools shows the following phases of community development that are similar to the Olivet program:

   a. Needs of the people were determined.
   b. A program was planned, based on needs.
   c. The program was put into effect.
   d. A questionnaire was used to evaluate the program.
   e. Plans for the following year were based on the previous year's experience.

   The differences between the two programs are listed below. The following points apply to the Noakes study:

   a. The program was not centered in the school.
   b. No advisory group was used.
   c. Existing programs of agricultural agencies or groups made up the total program.
   d. Non-vocational subjects were studied more than vocational agricultural subjects.

4. The Woodhull, Pasto, and Miller studies are alike in the following respects:

   a. The educational needs of the rural people were determined.
   b. Evaluation was used to discover how the needs were being met.

5. A North Carolina study, by Callihan, consisted of determining the needs of the rural people and arriving at principles which should aid in planning a program of action.

The differences between studies listed under items 4 and 5 above and the Olivet study are:

a. None of the methods of determining needs used in the above studies was followed entirely in the Olivet study.

b. Local people were not used to any great extent in the above studies.

c. No programs were evaluated in the above studies.

6. Reports by Lyle from Iowa, Voght from Nova Scotia, Loomis and Grisham from New Mexico, Ogden and Ogden, and Lindstrom from Illinois listed the following as being essential in a program of community development:

a. Use local people to determine the needs of the people in the community.

b. Use local people to plan the total program.

Although no one study of those reviewed is exactly parallel to the Olivet study, several are closely related. By employing some of the methods of analysis used by others and some additional techniques as shown in Chapter III, the present status and resources of the Olivet area were determined.

CHAPTER III

DETERMINING PRESENT STATUS AND RESOURCES OF THE OLIVET COMMUNITY

Before the Adult Education Program became a reality, it was necessary to make a thorough study of agricultural conditions in the Olivet area. This was necessary for two reasons. First, such a survey should lead to a decision on the important problems in agriculture in the area, and, secondly, the survey should provide a basis for deciding the status at the beginning so that achievement could be measured.

To determine the status and resources, three techniques were used. These were:

1. Study recorded information such as the history of the community, agricultural census data, and a survey of local farms conducted by the department of vocational agriculture.
2. Use an advisory council.
3. Personally observe conditions in the community and interview people for opinions on problems.

History of Olivet and the Community

The village of Olivet is 112 years old as the first settlers came in 1835 to take up land.

In 1844 a large group from Oberlin, Ohio, under the leadership of J. J. Shipherd came to establish Olivet College.[1]

Except for the college which is still located in Olivet, the town was rural, and typical of many in Michigan. Indian Creek, which runs through the village, was dammed to provide power to run a large grist mill and smaller saw mill. Both these enterprises have vanished.

Other goods and services were a blacksmith shop, dry goods store, and a general store which handled the general merchandise needed by the farmers and villagers.

The blacksmith shop, in addition to shoeing oxen and horses and fitting wagon tires, made nails and hardware for local use.

The first mail came to the village by way of a planked, toll-gate road from Marshall. In 1901 rural mail delivery was established. Olivet now has two rural mail routes. A star route from Charlotte delivers and picks up the Olivet mail. The service is fast and efficient.

Travel in and out of the community was always a problem until 1916 and 1917 when the Michigan Highway through Olivet was graded and graveled. This is now U.S. 27, which was paved in 1926. Adequate buses are now available.

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[1] Olivet - One Hundred Years - 1844 to 1944. Printed by Lawson Brothers, Battle Creek, Michigan. Published by interested citizens of Olivet, 1944, p. 63.

The original railroad began to operate in 1869, two and one-half miles north of Olivet at Ainger. It was first the Peninsular Road and is now the two-track Grank Trunk Road. The only trains that stop are local freights.

Today 50 local business enterprises serve the Olivet area. Three of these, the Farmers Grain and Fuel Company, Fleming Oil Company, and the Norton's Stock Yards are located at Ainger. These three enterprises serve the farmers of the Olivet area and in some cases farmers out of the area. A list of the services offered appears in Appendix A. Olivet's business and professional enterprises are listed in Appendix B.

History of Public Education in the Olivet Community

After three buildings were constructed and used, starting in 1839 the present school site was purchased and a four-room, two-story school building was erected.[2] The first one-room building had 14 students. In 1885 the Olivet system became a graded district.[3] Six years later the ninth grade was added to the school and in 1892 the tenth grade. The class graduated in 1893 had only one member, a boy. In 1899, the kindergarten was added. Two

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[2] Ibid., p. 9.

[3] Ibid., p. 10.

and three years later, the eleventh and twelfth grades were added to complete the school program.

In 1900, arrangements were made with the Olivet College whereby preparatory students from the college were taught for ten cents an hour. High school students were taught science at the college for 20 cents an hour.

In April of 1919 the six-room, brick school building burned to the ground.

In April of the following year a township election was held to vote on forming a Township Unit School. With 327 ballots cast, 220 were in favor of the plan and 107 were against it.[4]

A five-man board was elected in July of 1920 to complete the consolidation.

On March 22, 1921, an election was held at which time the school electors voted on bonding the district for $50,000 to erect a new school building. Of 543 votes cast, 273 were for and 270 were against the proposal. Bonds for $50,000 were issued at six percent interest payable over a 15-year period. The new building was completed and dedicated during the Christmas holidays of 1921 and 1922 and was occupied in January, 1922.

Due to such a close division of opinion of the taxpayers on the bonding issue, a cleavage developed in the

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[4] Ibid., p. 9.

community which has slowly diminished. Many of the older people still are not very friendly toward the Olivet school system.

In 1923 the school bought the first school bus to transport pupils. It was not until 1929 that the last rural school closed and all pupils were transported.

It is stated in the history of Olivet[5] that the eight rural school buildings were centers of activity in the various communities. In them, socials, spelling bees, singing school, and even religious services were held. Many of the schools were used for church services. The history shows that at one time there were six active churches in the township. Now two churches are active in the township, with one just outside.

Not long after 1929 many students outside the unit desired to attend Walton Township Unit School, the new school at Olivet. These students were transported to Olivet as non-resident students.

During the 1946-1947 school year, 223 high school and 257 grade school pupils are being transported by 11 buses from Walton township and 20 rural districts located in five townships adjacent to Walton township. There are 135 high school and 125 grade school pupils who reside in Walton township. A total of 584 students attend the Walton

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5 Ibid., p. 9.

School. It is rather significant that 82.1 percent of the students are from rural homes.

To accommodate this increase from 280 students in 1922 to 584 in 1947, some additions were necessary to the school. During 1936 the south wing and the gymnasium were added to the central structure at a cost of $112,000.[6] The P.W.A. gave 45 percent of the total cost and the W. K. Kellogg Foundation gave the remaining 55 percent less $36,000 which the district raised by bonds to be paid over a period of thirty years.

In 1938 the bus garage with a modern repair shop, the school shop, and the cafeteria under the south wing were added to the school plant. The district bore none of this cost of $65,000. The P.W.A. supplied 45 percent and the W. K. Kellogg Foundation 55 percent of the funds.

The whole plant is modern and well equipped. The present insured valuation of the buildings and equipment is $400,000.

A complete list of faculty and of subjects taught for 1946 and 1947 is located in Appendix C. Appendix D contains subject offerings at Walton Township Unit School.

Olivet had one of the earliest departments of vocational agriculture in Michigan. In 1928 under the guidance of Donald H. Shepherd, a local man who started to teach in

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[6] Ibid., p. 12.

Olivet in 1928, the Future Farmers of America was organized.[7]

Following Mr. Shepherd was Keith King, who taught from 1939 to 1941. In 1941 Thomas Kerrey was employed to teach and to do teacher training work in cooperation with Michigan State College and the State Board of Control for Vocational Education.

During and following Mr. Shepherd's teaching, the Olivet department of agriculture has been a leader in activities in vocational agriculture. Combined young-farmer and adult-farmer classes were started in 1939. This was the beginning of adult education in Olivet. Miss Dorothy Rudenberg started homemaking classes for adults in 1941.[8]

Interest in adult education rose rapidly during the war. Mr. Kerrey promoted and supervised adult classes in many phases of agriculture. A summary of the regular adult classes is shown in Table I. Mr. Kerrey states that this program was one of the largest of its kind in the state. Under Mr. Kerrey's direction, four special teachers, who were farmers, conducted neighborhood classes in dairy, pork, and poultry production during the winters of 1942 and 1943. Many farmers and their wives participated in this program.

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7 Ibid., p. 16.

8 Ibid., p. 19.

TABLE I

SUMMARY OF PART TIME AND ADULT AGRICULTURAL CLASSES CONDUCTED AT OLIVET

Teacher	Subject	Type of Class	Years	Enrollment	Number of Meetings
D. H. Shepherd	Farm Mgt.	Part time*	1939-40	**	**
" "	" "	" "	1940-41	**	**
T. H. Kerrey	Farm Mgt.	Part time	1941-42	12	14
" "	" "	Adult	1941-42	15	11
" "	Feeds and Feeding	Part time	1942-43	12	5
" "	"	Adult	1942-43	7	15
" "	Farm Mgt.	Part time	1943-44	8	15
" "	Dairy	Adult	1943-44	12	12
" "	"	Part time	1944-45	12	16
" "	"	Adult	1944-45	18	10
" "	Soils	Part time	1945-46	11	16
" "	"	Adult	1945-46	14	12
" "	Farm Mach.	Adult	1945-46	11	12

*Young farmer classes

**Information not available

Good farmers were used as the special teachers. These farmers came to the agricultural room of the school one evening each week to discuss lessons prepared by Mr. Kerrey. The special teachers used duplicate copies of the lessons in the neighborhood discussion groups. This program was conducted to raise production on farms. The war needs largely regulated the subjects taught.

Extension Service Program for Adults in the Olivet Community

Extension Service started in Eaton county in 1917, with an active Grange worker living near Charlotte acting as the temporary agent. Succeeding agents were T. N. Farrand, Ray E. Decker (now head of the Farm Crops Department at Michigan State College), Ralph Tenny (now director of Short Courses at Michigan State College), Clair Taylor, and Hans Kardel (the present county agent who started in 1929).

Walton township has the oldest extension class for women in the county. This is centered at Emma Grange. Another group with many years of operation is the Walton Center Extension Class for Women.

A soils discussion group was conducted in a neighborhood near Olivet for five continuous winters starting in 1927. This group was led by an extension specialist in soils from Michigan State College.

The local leader plan in extension work for women was started in 1925.

The extension service in the county has been active in promoting demonstrations on farms in the county. The first brome grass grown by a farmer in Michigan was produced by the only certified seed grower in Walton township.

A strong 4-H Club program exists in the county under the direction of Hans Kardel.

Mrs. Dorothy Brannstrom is the present home demonstration agent and was the former Dorothy Rudenberg mentioned previously.

Before putting the present adult education program into effect at Olivet, a study was made of the agricultural needs of the area. The first and most important source in this case was the agricultural census data.

Analysis and Interpretation of 1940 Agricultural Census Data

Some of the significant findings from an analysis and interpretation of the agricultural census data for

Walton, Brookfield, and Lee townships are given in the following paragraphs. A copy of data from the 1940 agricultural census is shown in Appendix E.

Walton and most of Brookfield townships in Eaton county and about two-thirds of Lee township in Calhoun county are included in the Walton Township School area. Parts of Bellevue, Kalamo, and Carmel townships in Eaton county and parts of Convis and Clarence townships of Calhoun are also included.

All of the data from Lee township are included in the analysis even though only two-thirds of the township is in the school patronage area. As Clarence and Convis townships are similar to Lee, it was considered feasible to use all of the Lee township data and none of the other two because the agricultural census data are not recorded in units smaller than townships. Likewise, all of the Brookfield township data was used and none of the data from Bellevue, Kalamo, Carmel, and Eaton townships. The total geographical size of Walton, Brookfield and Lee townships corresponds almost exactly with the geographical size of the school patronage area.

Figure I shows the location of these townships. Walton township is outlined by heavy dashes. The school patronage area is roughly denoted by the circular dashed line.

Walton and Brookfield townships each contains 36 sections one mile square. Eaton county contains 16 townships. Lee township contains 36 sections each one mile square while Calhoun county contains 20 townships. The Olivet school area contains approximately 108 square miles. Olivet is located in the west-central part of the area. Total acres in Walton are 21,527; Brookfield, 22,249; and Lee, 21,357; or an over-all total of 65,133 acres.

The number of farms in the area is as follows: Walton, 207; Brookfield, 180; and Lee 180; or a total of 567. Walton ranks eighth and Lee seventh while Brookfield ranks fourteenth in number of farms as compared to the other townships in the county. This indicates that Walton and Lee have average-sized farms for the respective counties and Brookfield has larger than average farms. The average acres in Walton township farms are 104, in Lee 119, and in Brookfield 124.

Land used for crops in Walton is 10,344 acres. Added to this are 6,130 acres for plowable pasture and 1,122 acres of idle land, making a total of 17,596 tillable acres in Walton of which 81.7 percent is tillable.

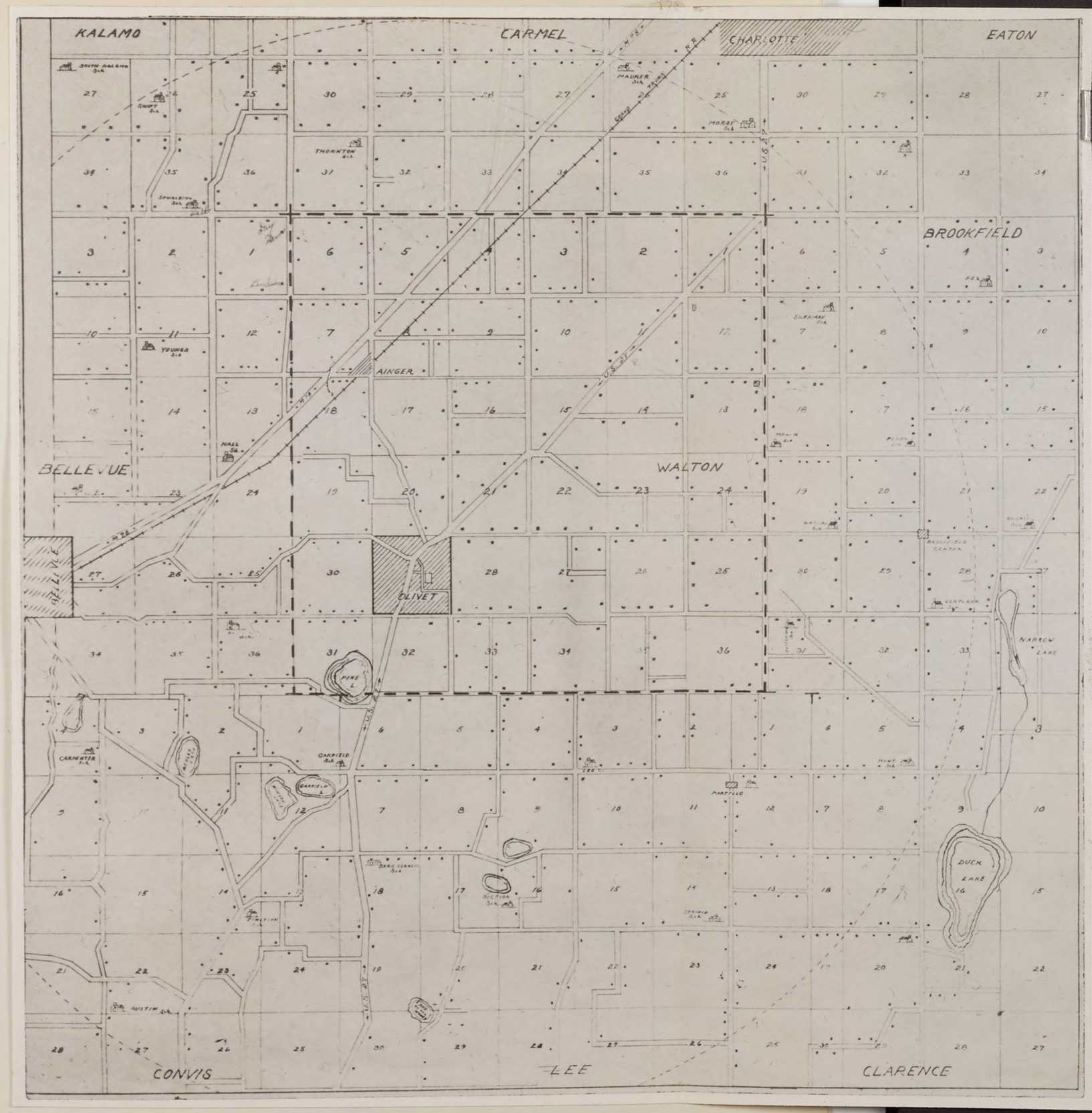

Figure 1. Map of the Olivet Area.

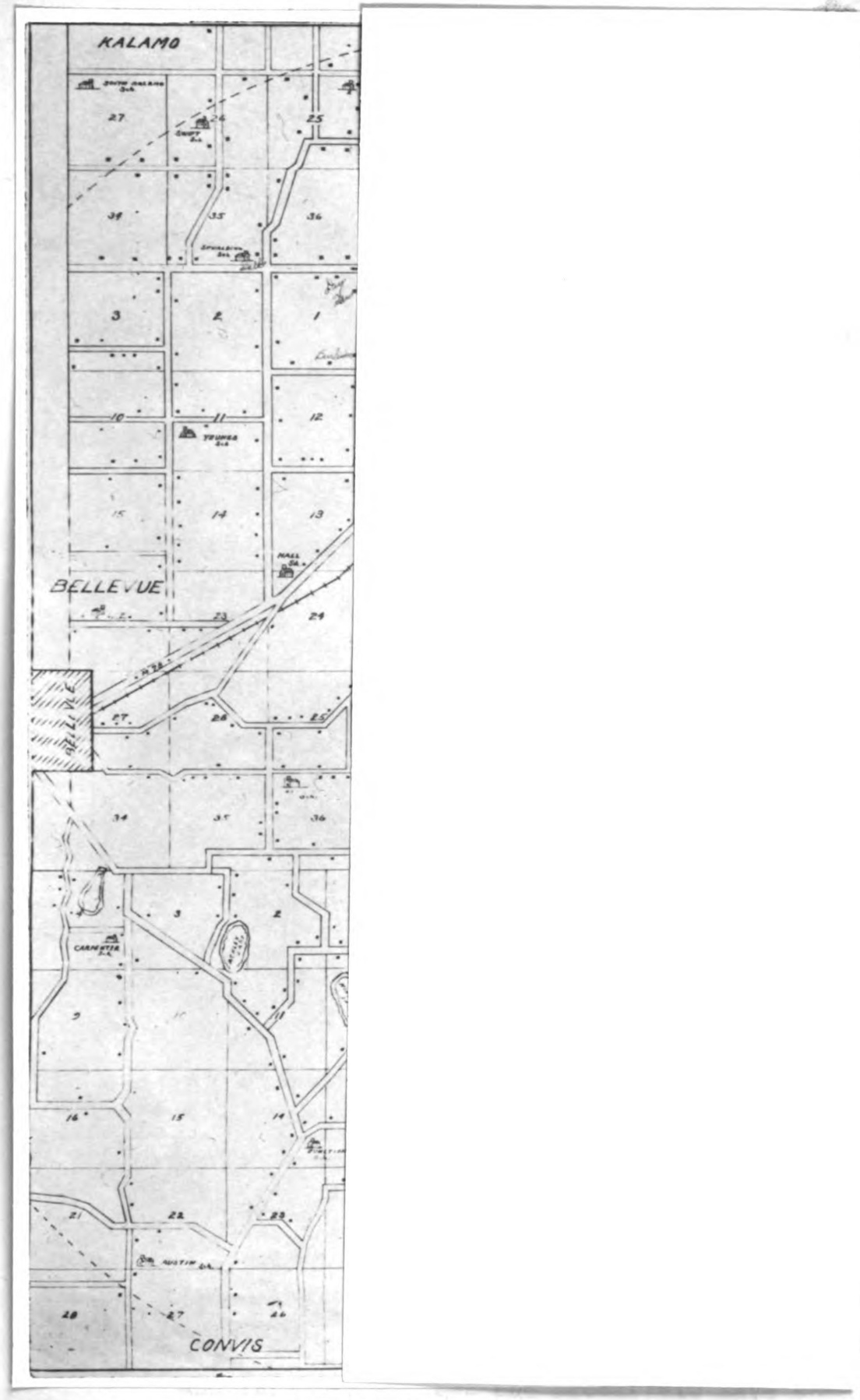

Figure 1. Map of the Olivet Area.

Of the remainder, 9.2 percent is in woodland and 9.1 percent in all other land.

In Brookfield township, 11,244 acres exist for crops. In 1940 there were 448 acres idle and 3,387 acres in plowable pasture. This makes a total of 15,079 tillable acres. Of the total, 67.8 percent of the land is tillable. Of the remainder, 8.2 percent is in woodland and 24.0 percent is in all other land.

In Lee township 8,898 acres are used for crops with 1,418 idle acres and 4,859 acres in plowable pasture or a total of 15,175 tillable acres. The percent tillable is 71 with 8.4 percent in woodland and 20.6 percent in all other land. A total of 47,850 acres of tillable land exists in three townships.

The above analysis indicates the following:

1. Walton township has the highest percentage of tillable land as compared to Brookfield and Lee.
2. Brookfield has the lowest percentage of tillable land and is comparable to Lee, both of which have approximately 10 percent less than Walton.
3. Each township has approximately one-twelfth of the total area in woodland.
4. The difference comes in "all other land" which is waste land, permanent pasture, swamps, roads, and farmsteads. Lee and Brookfield have about

one-fifth of the total land area in this classification, whereas Walton has less than one-tenth.

5. With from seven-tenths to eight-tenths of the land tillable it becomes very important to use that land to the best possible advantage both in the short and long time program.
6. With about one-tenth of the land in woods this may become a very important source of revenue. Study and care should be given to the farm woodlot.
7. With from one-tenth to one-fifth of the land not used for crops, serious consideration should be given to developing this land for the best possible use.

Valuation of land and buildings of the three townships varies considerably. Walton township ranks fourteenth and Brookfield ranks seventh as compared to sixteen Eaton county townships. A rank of one means the highest in all cases. Lee township ranks eighth among 20 Calhoun county townships.

The rank for the value of the average farm in each township for the townships named above is fifteenth, third, and thirteenth. The rank in average value per acre is fifteen and one-half, seventh, and fourteenth. The rank in building valuation for the three townships in the above order is fifteenth, ninth, and ninth.

The implement valuation for the townships in the same order is fifteenth, eleventh, and ninth.

The above information could be interpreted to mean as follows:

1. The soil and buildings in Walton township as a whole are about the least valuable of any township in the county.
2. Walton township buildings and implements carry about the lowest valuation of all townships in the county. This may be closely related to the poorer soils that exist in Walton township.
3. Brookfield's land and buildings rank about in the middle. The average value per farm is near the top. This is due to the fact that there are larger, and therefore fewer farms in Brookfield which brings up the valuation per farm.
4. The value of implements in Brookfield is slightly below the median rank. This is also due to larger farms which makes fewer farms with approximately the same amount of machinery required to operate 124 acres in Brookfield as is required to operate 104 in Walton.
5. Value of land and buildings in Lee lies slightly above the median rank while the value of the average farm and average acre is decidedly below the median. This indicates that there are more

and therefore smaller farms in Lee as compared to the other 19 townships. The low rank of the average acre indicates poorer soil.

6. The value of implements in Lee is near the median and compares with the land and building valuation.

The implications for an agricultural improvement program are:

1. The above conclusions would indicate soil conservation and improvement are necessary.
2. Buildings and machinery need care, repair and improvement.

Cattle and calf numbers rank high in Walton indicating this is an important enterprise. Brookfield and Lee both rank exactly at the median.

Production per cow in Walton is below the average of the county as shown by a rank of fourth in numbers of cows and heifers milked and sixth in gallons of milk produced.

The reverse is true both in Brookfield and Lee. Brookfield ranks fifth in cows and heifers milked and fourth in production, indicating above average production in the respective townships. Lee ranks eleventh in number of cows and heifers milked and seventh in production. This is very favorable in regard to production. However, in terms of pounds of milk produced per cow, the average per cow in Lee

was 4,120 pounds; Walton, 4,784 pounds; and Brookfield, 4,928 pounds. This is a fairly wide range with Lee considerably lower than the other two townships.

Although no accurate information is available on number of various breeds of cows in the three townships, it is known that there are several large Jersey herds in Lee township and many large Holstein herds in Walton and Brookfield. This may, in part, account for the lower average production of milk in Lee township.

All of the above figures are considerably below the 1945 production on the average farm-accounting farm[1] for this area.* The average pounds of milk for Jersey and Guernseys is 6,137. The average for the Holsteins is 8,928 pounds. The state average for Holsteins is 7,000 pounds and for Guernseys and Jerseys is 4,000 pounds per year.[2]

Swine numbers rank high in Brookfield indicating a strong swine producing township. Both Walton and Lee rank

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* Area 5 is composed of Ionia, Clinton, Shiawassee, Genesee, Eaton, Ingham, Livingston, Jackson and Washtenaw and parts of Calhoun, Barry and Kent counties. For purposes of the Farm Management Department at Michigan State College these counties are grouped because of similarity of farming that exists throughout. Area 5 is called the Dairy and General Farming area.

1 "Farm Business Report," Area 5 Dairy and General Farming, 1945, Farm Management Department, Extension Service, Michigan State College, East Lansing, Michigan, p. 11.

2 Clyde May, "Analyzing and Planning the Farm Business," Farm Management Department, Extension Service, Michigan State College, East Lansing, Michigan, p. 23.

slightly below the median, indicating that hogs are less important in those two townships than in others in the county.

Sheep and lamb production is most important in Lee township, which ranks third in the county. Walton ranks seventh and Brookfield fifth. In all these townships sheep and lamb production is fairly important.

The poultry enterprise is most important in Walton township, which ranks fifth in the county. Brookfield ranks eleventh and Lee twelfth.

The above information on livestock could be interpreted to mean as follows:

1. Dairy is the most important livestock enterprise in the area.
2. Swine ranks second in importance.
3. Poultry and sheep are of about equal importance and rank below swine in terms of income produced.
4. Many cows probably are producing at a loss.
5. Low building valuation may mean inadequate housing for livestock and people.
6. Poorly housed livestock may be a threat to health of livestock and people.

The implications for an agricultural improvement program are:

1. An adequate butter-fat testing program should be

instituted to give a basis for culling low-producing cows.

2. Good housing for dairy cows would improve production.
3. Proper housing would improve dairy sanitation.
4. An improved breeding program would raise dairy production.
5. The swine enterprise should receive attention.
6. Sheep could be raised to greater advantage on certain farms in the area.
7. The poultry enterprise is often neglected on many farms but could provide a considerable share of the farm income if properly handled. This enterprise should be developed further on many of the smaller farms.

Corn is the leading grain crop in all three townships. The yields for 1939 were as follows: Walton 39.6, Brookfield 39.8, and Lee 37.6. The five-year average for area 5, 1935-39, was 32 bushels per acre.[3] A recommended standard for profitable production for area 5 is 40 bushels per acre.[4]

Wheat yields were lowest in Lee township in 1939, with 19.6 bushels per acre. Walton produced 23.6 and Brookfield 23 bushels on an average per acre. The 1935-39 average

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[3] Ibid., p. 23.

[4] Ibid., p. 23.

for area 5 was 24.[5] A good standard is 30 bushels per acre.[6]

Alfalfa acreage is low as compared to other hay and pasture acreage in each township. Lee township ranks nineteenth in alfalfa acreage and first in clover and timothy.

The above information on crops could be interpreted to mean as follows:

1. The crop yields are approximately the same as the average of area 5.
2. The hay and pasture acreage is low in legumes.

The implications for an agricultural improvement program are:

1. Due to the hilly topography in some sections the row-crop acreage should be reduced and the hay and pasture acreage increased.
2. Raise improved hay and pasture crops.
   a. Raise more alfalfa-brome grass.
   b. Raise more Reed-Canary grass on low areas.
3. Use more lime.
4. Use more commercial fertilizer.
5. Plow under more green crops.
6. Revise the farm program so as to grow cultivated

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5 Ibid., p. 23.

6 Ibid., p. 23.

crops on the more nearly level land and the hay and pasture on the hilly land.

7. Raise crop yields.
8. Plant forest trees on land unsuited for other uses.

The information provided by the agricultural census should be reasonably accurate as every one of the 567 farms in the three townships was surveyed to get the information. However, no information is given on farming practices. A limited survey was conducted by T. H. Kerrey in 1941 on this phase of agriculture. This is discussed in the next section.

Analysis of Local Agricultural Data

In many communities surveys are made and not used, while in others needed surveys are not made. In the Olivet Adult Education Program nearly all information on the area was secured without great expense in time and effort. Only needed information was secured and all information that was secured was used. Whenever possible available data were studied and used to determine needs.

When Mr. Kerrey came to Olivet in 1941 he made, during the first school year, a survey of the home farms of the students enrolled in vocational agriculture. This detailed survey contained an inventory of crops, livestock,

and machinery and a listing of practices used on these farms. A complete survey was taken on 24 farms of sophomore, junior, and senior students in vocational agriculture. The results of the survey are shown in Appendix F.

As 24 is not a very large sample from the 567 farms in the area, the results of these data should not necessarily be considered as giving as complete a picture of agriculture in the area as does the agricultural census data which was analyzed and interpreted in the previous section.

The importance of the information collected from the 24 student farms lies in:

1. Data of practices used on home farms.
2. Condition of home farm shops.

Based on the survey the following soil improvement recommendations could be made:

1. As 79 percent of the farms need drainage, assistance should be given farmers in getting land drained.
2. Over one-half of the farms reported that some fall plowing was done. This should be minimized due to the topography of the area.
3. As 41.5 percent of the farms purchase feed a revised farm plan may enable farms to produce more feed.

4. More superphosphate should be used in the soil to balance manure.
5. Soil and plant tissue should be tested for lime, nitrogen, potassium, and potash deficiencies.
6. More erosion control crops should be planted. Only two farms out of the 24 were using rye or some other cover crop in cultivated fields in the fall to prevent erosion.

Based on the survey the following dairy improvement recommendations seem appropriate:

1. Promote the keeping of annual production records for individual cows.
2. Use records as a basis for feeding and culling.
3. Encourage the use of simplified rations, using good quality roughage, corn, and purchased supplement if necessary.
4. Discourage the use of stock tonics.
5. Encourage the use of simple mineral mixtures.
6. Encourage regular testing for Bangs disease and in some cases establish a vaccination program.
7. Encourage regular testing for mastitis.
8. Encourage clipping of cows' flanks and udders for sanitary milk production. (Only two of the 24 farms were following this practice.)
9. Encourage sanitary milking practices.

10. With an average of 10.1 cows per herd, profits could be increased by using artificial insemination instead of bulls.

Based on the survey the following recommendations which involve farm mechanics could be made:

1. Develop home farm shops.
2. Teach farmers skills in farm mechanics.
3. Provide facilities for farmers to repair machinery and construct labor-saving devices.

Although the student survey sample was small, the data in this survey agree closely with the data in the 1940 agriculture census.

In studying local needs, it becomes noticeable that three important problem areas recur. These areas are soils, dairy, and farm mechanics. Before any action was taken by the director in building the program for adult education, local people were consulted to get their ideas and opinions.

Using the Advisory Council to Help Analyze Present Status and Resources

In a few schools in Michigan and other states, agricultural advisory councils have been developed to assist in making the agricultural department more useful in the community.

A leader in the development of the advisory council for use in agricultural education has been H. M. Hamlin, professor of education, University of Illinois. Because of his experience, Hamlin is qualified to make some statements on the formation and functions of an advisory council.

Here is a list of reasons why an advisory council should be used, as recommended by Hamlin:[7]

1. The advisory council is one way of saying to the community,

   > "This is your school and your agricultural department. We want you to use it for the attainment of values which you think are important."

2. The members of the council can reach out into the community and learn the real opinions and reactions of the people regarding the school program.
3. The council is also an excellent public relations device for the agricultural department.
4. The council aids in deciding what should be included in local programs.
5. The council aids in evaluating local programs.

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[7] H. M. Hamlin, A Community Program for Agricultural Education. Illini Union Bookstore, Champaign, Illinois, 1943, p. 7.

O. C. Aderhold[8] and H. F. Engelking[9] voice opinions based on their experiences that are similar to Hamlin's.

The department of agriculture can use a council more effectively because of the vital relationship of the work of the department to community welfare. The department of agriculture usually has contact with more adults than other departments in the school.

A community council, which is somewhat parallel to the advisory countil, is used in many communities in Michigan and other states. Such councils work closely with the schools in most cases. Often the council is started by the school. In any event, such councils are for the purpose of improving the community through the expressed will of the people.

It was with this general background that the Adult Education Advisory Countil was put into operation at Olivet.

Not all of Hamlin's suggestions were followed in establishing the council at Olivet. The general philosophy for using a council was very acceptable to the school superintendent at Olivet but the board of education required

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[8] O. C. Aderhold, Wider Use of Community in Building Programs in Education, Address, American Vocational Association, Buffalo, New York, February 7, 1946, 15 pp.

[9] H. F. Engelking, "My Experiences with a General Agricultural Advisory Council," Agricultural Education Magazine, 19:192, April 1947.

considerable information before giving permission to form the council. The board has since had only favorable comment on the council's activities.

After the board of education and the superintendent gave permission for the council to be formed, it was decided that each farm organization in the area by invited to appoint a representative to the council. In addition, the personnel includes the county agricultural agent, the home demonstration agent and the 4-H club agent from Eaton and Calhoun counties, representatives from the County Health Department and from the Olivet Chamber of Commerce, supervisors from Walton, Brookfield, and Lee townships, C. B. Loomis from Olivet College, and the teachers of shop and of agriculture at Olivet.

It should be mentioned that the board of education also acted as an advisory group. On June 8, 1946, the director met with the school board to obtain their thinking on agricultural needs of the community. Mr. Kerrey, teacher of agriculture, and Mr. Scott, superintendent, attended this meeting. Four specific needs were agreed upon as being important. These were: (1) soil conservation, (2) dairy improvement, (3) farm machinery and equipment repair and (4) recreation for youth and adults.

The formation of the advisory council differed in two ways from Hamlin's recommendations. First, approximately twice as many people are on the Olivet council as Hamlin

advises, and secondly, nearly all of the people on the council were choices of organizations rather than choices of the school administration. A list of advisory council members and the organizations represented appears in Appendix G. Location of advisory council members is shown in Figure 2.

The process of deciding what were the important problems of agriculture in the area and how these problems should be met is revealed in the following review of the advisory council meetings. In general, factual data brought problems into focus. Through discussions agreement was reached on action to be taken.

At the first meeting of the council on September 24, 1946, census data were presented on land and building valuation in the two townships of Walton and Brookfield. These data are shown in Table II.

Little discussion followed the presentation of these figures. It was not until the second meeting, when additional data were presented and some interpretations made by the director, that several decisions were made by the group.

At the first meeting the important agricultural enterprises, as decided by the members, were listed on the blackboard. Following these enterprises, a list was made of the things farmers and farm families expect to receive from these enterprises. This information is tabulated in chart form in Table III.

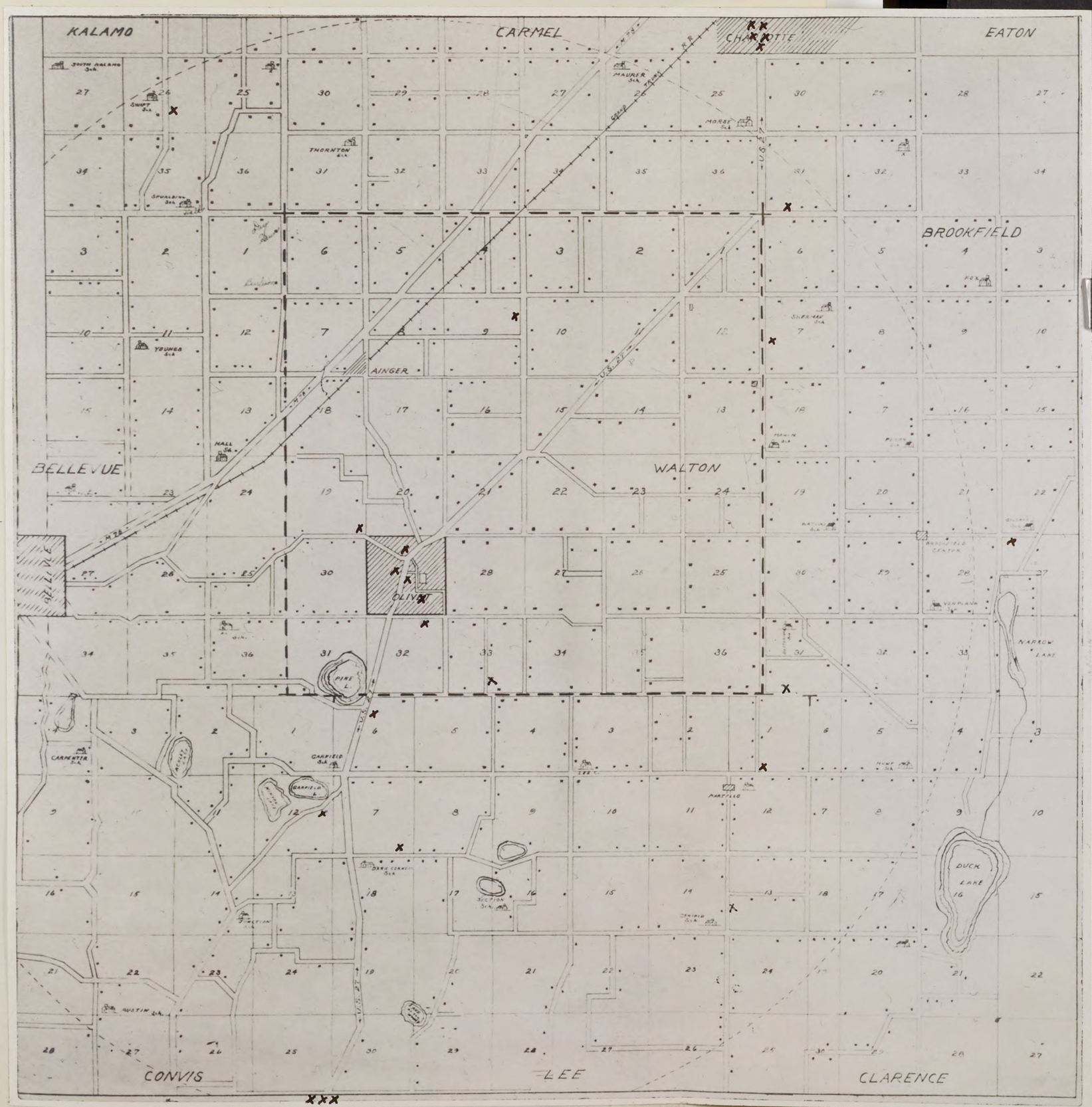

Figure 2. Location of Advisory Council Members.

It was emphasized that the purpose of the adult education program was to meet the needs of the people as decided by all available evidence. Although the program was to be centered in the Olivet School, existing organizations and agricultural agencies were to be used in developing the program.

Several times during this first meeting, council members mentioned the need for meeting neighbors and other people in the community in a more adequate social program. One member emphasized the need for building attractive programs for youth in the community.

Subjects brought up that were postponed to the next meeting were: (1) the situation of part-time farmers and (2) school district reorganization. Minutes of all advisory council meetings may be found in Appendix H, I, J and K.

At the second council meeting on October 30, more census data were presented by the director with some interpretation. Considerable discussion followed and some specific ways and means were suggested for arriving at solutions to problems.

Two other important farm needs were discussed. These were improvement of soil and dairy improvement.

Council members stated that farmers respond more favorably when met individually or in small groups.

The council elected L. E. Johnson, Sr., as chairman and T. H. Kerrey, local teacher of vocational agriculture,

TABLE II

AGRICULTURAL CENSUS DATA* FROM WALTON

AND BROOKFIELD TOWNSHIPS

	Walton	Rank**	Brookfield	Rank**
Land and Buildings				
amount	$946,590	14	$1,232,420	7
average per farm	4,573	15	6,847	3
average per acre	44	15 1/2	55	7
Buildings				
farms reporting	202	9	178	15
amount	$459,320	15	$ 596,355	9
Implements				
farms reporting	171	11	140	16
amount	$106,817	15	$ 139,325	11

*All data taken from the 1940 Agriculture Census.

**Ranking in relationship to 16 Eaton County townships.

TABLE III

ENTERPRISES, WHAT FARMERS EXPECT FROM THE ENTERPRISES, AND NEEDS AS DISCUSSED IN THE FIRST ADVISORY COUNCIL MEETING

Enterprises		Should Produce
Dairy cattle		Home conveniences
Hogs	Beans	Social development
Poultry	Muck crops	Program planning
Corn		Home furnishing
Pasture		Education for children and adults
Oats		Goods and services
Barley		Labor saving machinery

What We Can Do to Get the Things We Need:

Repair farm machinery

Learn farm mechanics skills

Develop 4-H leaders

Use Olivet College and students

Improve dairying

Test soil

Study genetics and improve breeding

Control insects, pests and diseases

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was chosen secretary. Sixteen council members attended this meeting. Three Michigan State College students studying community work at Marshall attended with the Calhoun County Agricultural Agent.

The third meeting was scheduled for December 11 at 8:00 p.m. This meeting included a progress report from the director. Most of the meeting was devoted to arriving at specific needs for the soils program, which was suggested at the last meeting of the council and by the board of education. The five needs were:

1. Complete conservation plans in operation.
2. Establish more soil improvement practices.
3. Test soil for nutrient deficiency.
4. Conduct demonstrations in test strips, fertilizer plots, and run-off plots.
5. Improve health through improved soil fertility.

At the fourth meeting of the council held on February 13, the problem of reforestation was discussed. Hans Kardel, County Agricultural Agent in Eaton county, felt that little reforestation was needed in Eaton county because such a high percent of the land was tillable. He stated that windbreaks could be used on more farms. As for Walton township, he thought there was more possibility for reforestation in this township than in some of the others where land was more nearly level. He told of one farm in Walton township that could be entirely reforested. Several men have

owned the farm recently and have met with misfortune trying to till the soil on this farm. For some reason a bank in Lansing now owns the farm and asked for Mr. Kardel's advice in operating the farm. Mr. Kardel's facetious reply was that he was pleased that some bank owned this property rather than a farmer and suggested that the land be turned back to the Indians. There are parts of many other farms in the area that could be classed as was this farm.

There was a need indicated for providing trees for rural schools, civic organizations, farmers, and others who could use such trees for forest plantings or windbreaks.

The health representative mentioned the need for maintaining soil fertility to provide nutritious food to make healthy people. Mr. Kardel also mentioned the experience of selective service in finding more unqualified men in the rural areas than in urban areas. This problem should receive more attention.

Locating and training leaders for 4-H clubs was again discussed.

Considerable specific planning was done in all these meetings. These plans are listed in Chapter IV and V.

Using Observations and Interviews

In addition to the procedures discussed which aided in determining the present needs and resources of the community, valuable information was secured by observation and interview.

Comparing the Olivet area with others, several factors are noted to the observer.

1. The topography of the land is very rolling and even hilly in most sections. Figure 3 is an example of the topography of the area.
2. There is considerable visible erosion. Figure 4 shows gullying, whereas Figure 5 shows the result of sheet erosion.
3. Some farms appear to be making profits. Such a farm is shown in Figure 6.
4. A majority of the farm buildings need paint and repair. A typical example is shown in Figure 7.
5. There appear to be many unattractive rural homes. Figure 8 is an example of one such home.
6. Olivet, a village of 600 people, is located only four miles from Bellevue, a town of 1500 people. Charlotte, a town of 6000 is eight miles from Olivet, and Marshall, a town of 7000 lies eleven miles south of Olivet. Olivet is in the unusual situation of having a much larger school area than trading area. This is due to Olivet's early consolidation and to the fact that the Olivet school provides a stronger educational program for rural students than the other three towns. Early use of buses to transport pupils is an important factor for the large school area.

Figure 3. An Example of Topography in the Olivet Area.

Figure 4. An Example of Gully Erosion in the Olivet Area.

Figure 5. An Example of Sheet Erosion in the Olivet Area.

Figure 6. A Profitable Farm in the Olivet Area.

Figure 7. Farm Buildings in the Olivet Area that Need Paint and Repair.

Figure 8. Example of an Unattractive Farm Home.

Charlotte used the first school bus in 1941 and now has two. Marshall has only a few buses and these are owned and operated by a private concern. Bellevue has a bus system about half the size of Olivet's. Yet with nearly all the high school pupils and many grade-school pupils coming to Olivet from a wide area, only a small percentage of the farmers trade in Olivet either in part or wholly. This is partly due to the much larger towns nearby that provide much more adequate goods and services. Figure 9 shows Olivet's business district.

7. During the past year several important changes in Olivet have brought more farmers to trade in Olivet. These changes include: (a) construction of a combined self-serve grocery and locker plant, (b) addition of the second hardware store and a lumber yard, (c) construction of a $40,000 theatre and (d) opening of a modern "snack-bar." (A complete list of the Olivet business enterprises is listed in Appendix B).
8. The telephone service is in the process of changing from farm lines to Bell. The Bell service extends from one to four miles from Olivet. Two sections are without any phone service. This is partly due to discontinuing

Figure 9. Olivet Business District.

of former lines as is the case in southern Brookfield township. Northern Lee township has no phone service. Farmers in both sections are eager to have phone service as soon as lines are constructed.

9. Fire protection is provided by Olivet to all of Walton, Lee, and Brookfield townships.
10. The Methodist Churches located at Brookfield and Lee Center are poorly attended and are in need of much repair.
11. The non-denominational Church at Five-Corners is in fair repair and is well attended. This church serves as a strong community center.
12. A fundamentalist Church at Ainger is the best attended church in the area.
13. The Olivet Church is Congregational and is in good financial condition. Attendance at services is not large. Farmers and youth are noticeably lacking.
14. Emma Grange in eastern Walton township is one of the oldest Granges in Michigan. This Grange is very active, caters to young people, and provides many community activities.
15. The Grange at Olivet is composed largely of retired farmers and is not too active in rural affairs.
16. Partello Grange seems to have lost the purpose of

a Grange during the last few years. The older generation seem to fill their social needs through the Grange and young people are not included. A primary objective appears to be money raising through dances held at the hall. A balance of over 500 dollars is in the treasury at present.

17. The Farm Bureau is strong in both Eaton and Calhoun counties. Active discussion groups exist at Five-Corners, the section east of Olivet.

18. The most prosperous section of the area is the eastern part of Walton and most of Brookfield townships. Emma Grange and the Five-Corners Church provide strong community ties in this section. These people are good supporters of the school.

19. Very poor soil exists in Convis township. The soil, except for the muck, in this area is class 2, 3, and 4. All of the area has electrification except parts of this township.

The only tavern in the area exists at Garfield Lake. Liquor is also sold from a rural store located on U.S. 27, two miles south of Garfield Lake, and at the Partello store.

20. The only serious deliquency in the area persists at Partello where a store, school, Grange Hall, and several houses are located.

21. A well-knit community exists at Lee Center but is formed around the school rather than the church.
22. A considerable number of farms are occupied by part-time farmers. These men work in Charlotte, Marshall, Lansing, and Battle Creek.
23. The U.S. highway through the area is good. The state and county roads are only fair. Some of the township roads are impassible at times in the spring. Varying amounts of school time are lost each year due to snow conditions.

One outstanding interview regarding the Olivet community was held with Mr. Henry Curtis, a man now about 70 years old. He grew up in the area, attended Yale University and Johns Hopkins, and later became a consultant on playground construction.

He was very emphatic about the tumbled-down appearance of farm buildings and farmsteads in the area. He noted that the farm machinery was outdoors and in poor repair in many cases. His contention was that 50 years ago the farms looked better than today.

It would be reasonable to assume that considerable top soil has been lost during the past fifty years. However, improved practices may have kept farms at about the same productive capacity.

However, it is noticeable that buildings are in much better repair on the heavy, nearly level land in Brookfield township.

Native people in general say that farmers are experiencing about the same degree of prosperity as has existed during the past 50 years.

Summary of Needs and Resources

From the foregoing analysis a fairly complete picture can be gained of the economic resources and needs of the Olivet area.

For resources the Olivet area has the following:

1. About 108 square miles of agricultural territory in which lie 65,125 acres of land; 46,830 acres is tillable.
2. 567 farms that are moderately productive and moderately equipped.
3. Experienced farmers and families tilling most of the soil.
4. A good public school system.
5. A village which provides minimum farm needs.

The important agricultural needs of the area are:

1. Soil improvement is needed because a wide variety of soil problems exist. The most important problem is water erosion. Improved

soil will directly or indirectly solve many other farm problems of the area.

2. Although dairy is the most important enterprise in the area, improvement in efficiency is needed.
3. Poultry efficiency is low and should be raised.
4. On some farms livestock efficiency would be raised through improved soil management.
5. Buildings need paint and repair.
6. Farm implements and equipment need repair and maintenance.
7. Farmers need education in the skills of farm mechanics.

To put the program into effect many approaches and procedures were used. Some of these were more successful than others. No possible technique was overlooked in developing the program.

CHAPTER IV

PROCEDURES USED IN DEVELOPING THE PROGRAM

To organize an effective action program it is necessary to become acquainted with leaders of the people in the area, and all organizations in which they participate.

Morgan[1] with his broad experience in community organization asserts that the leadership has to have lively imagination, and a cultural inheritance that includes more understanding of men, more respect and good will for them, and more friendly interests and neighborliness which will make for greater participation on the part of the community members in directing their own lives in that community.

Getting Acquainted with the People and Community Leaders

To become acquainted with the people, it is necessary to be with them in their work, recreation, and other activities. With this in mind the director of the adult program at Olivet attended all school functions both pupil and adult, and by invitation joined the Olivet Lions Club, the Olivet Chamber of Commerce, the Olivet Grange, the Calhoun County Farm Bureau, and the Olivet Congregational Church. With the exception of the Grange and the Farm Bureau, an active part

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[1] Arthur E. Morgan, The Small Community, New York: Harper and Brothers, 1942, p. 102.

was taken in all organizations. No invitations to meetings were refused.

One of the first activities which enabled the director to meet many people was the visiting of 25 community leaders for the purpose of inviting them to attend a "Goodwill Conference" near Battle Creek. This work was done during the second week after arrival for work.

Some time was then spent interviewing people in the director's neighborhood regarding the possibility of securing phone subscribers as no telephone line existed in that area.

Persons working locally in state and federal agricultural programs were then visited.

In all visits the director had a question to be answered or a request for service or materials. During the call the people usually asked questions about the adult program and satisfactory explanations could be made.

Contact with ten newspapers was made to provide publicity. This is described in more detail in a later section.

During the second month many farm calls were made in establishing the dairy improvement program and asking people to become advisory council members.

By this time enough organized activities were under way that contacts were being made to work out some problem regarding one of the programs. In all cases some specific thing was sought for in personal contacts. This saved time for all concerned and obtained results.

Many appearances were made at farm organization meetings either to give a talk or to visit the group.

Getting Acquainted with Agricultural Organizations Working the Area

Part of the process of getting acquainted with the agricultural organizations is discussed in the previous section. No effort was made to "muscle in" on any organization. In every organization joined, invitation to join was extended to the director and in some cases to his family. In all the organizations joined, and some not joined, at least one meeting was devoted to a discussion of the adult education program. None of these was at the director's suggestion or request.

Using the Advisory Council

Numerous reasons for establishing an advisory council are discussed in Chapter III. In establishing and using the advisory council, as in every other phase of the program where people are involved, the process is as important as the outcome.

After the school administration agreed on who should be on the council, the director called on all of these people before the secretary of the board sent the invitations for membership. This did four things: (1) the director became acquainted with each leader, (2) each local leader became

acquainted with the director, (3) the purpose of the adult program was explained to each leader, and (4) the local leader was in a better position to explain to neighbors and others the nature of the program.

This last point has been a major objective for forming the council. Members attending meetings were always aware of program developments because they helped decide what was to be done. Members were urged to discuss, with groups represented and with neighbors, developments in the program. Council members were urged to bring in and discuss ideas from neighbors and groups represented. Following the first meeting a special folder was mailed to each member with a copy of the minutes for that meeting. Subsequently, after every meeting a copy of the minutes was mailed to every council member, for insertion in the folder. Copies of the minubes for all of the council meetings are included in Appendix H, I, J, and K.

A copy of all council minutes was sent to each local newspaper.

The methods used in the council to determine community needs are described in Chapter III. The council was very valuable in determining how these needs could be met. Specific suggestions made at the first meeting were: (1) organize farm machinery repair classes, (2) organize 4-H clubs, (3) improve dairying and (4) assist organizations in program planning. No action was taken at this meeting in putting

these recommendations into effect.

At the second council meeting a large part of the time was given to solving the farm machinery problem. According to data presented and observations of council members, the farm machinery, equipment, and buildings needed immediate attention. As materials and parts were scarce, farmers needed help in making use of what was available. To do this job the council was in favor of a mobile shop being constructed by the school. This shop would be equipped with mechanics' tools, carpenters' tools, forge, welder, and other available equipment. The shop would operate one or two days a week in various neighborhoods. A competent instructor was to accompany the shop at all times. The purpose of such a program would be to instruct farmers how to care for, maintain, and repair farm machinery, install plumbing, wire for electricity, remodel farm buildings and homes, install home conveniences, and do any other jobs related to the farm. The council agreed that the two-fold purpose of the program would be to teach farmers how to do the jobs and for them to actually do the jobs on their own equipment.

At the third meeting on December 11, specific goals were established for the soil conservation program. The evening was used in arriving at the following goals for soil improvement:

1. Complete conservation plans in operation on 20 farms.

2. Ten or more improved practices in effect on 80 farms.
3. Test soil for nutrient deficiencies for all farmers requesting the service.
4. Conduct demonstrations in test strips, fertilizer plots, and run-off plots.
5. Improve health through improved fertility of the soil on 50 farms.

On investigation of cost of constructing a mobile repair shop, the school found the cost to be out of line with available finances. Through the War Surplus Property Service a four-wheel, mobile, navy repair unit was secured and was at the school for inspection on December 11.

Visitors at the December meeting were: Ralph Wenrich, Assistant Superintendent for Vocational Education in Michigan, Harry Nesman, Chief, Agricultural Education Division, State Board of Control for Vocational Education and Dr. Harold Byram, Professor of Agricultural Education, Michigan State College. These men were very helpful in stimulating the thinking of council members. These men also made some suggestions that would aid in achieving the goals.

The fourth meeting on February 13 was devoted to discussion of 4-H Club organization, reforestation, and rural health problems.

The three primary objectives for the adult program as decided by the council were:

1. Soil improvement.
2. Dairy improvement.
3. Farm machinery repair.

These objectives are discussed in more detail in Chapter V.

Using Personal Calls

As mentioned previously, the personal calls were largely the basis for building the program. No opportunity was overlooked to gain information from individuals. Many times this was done during the process of assisting the person or asking the person to assist with some phase of the program.

A daily record of all personal calls was kept together with other data which was submitted to the board of education each month. The daily record form is in Appendix M. A mileage report is submitted to the school board each month. This report lists in detail calls made. A copy of the January mileage report is in Appendix L.

Using Telephone Calls

An extension telephone from the school office was installed in the director's office at the school in August. Whenever possible, telephone calls were made to save time and driving expense. The Marshall, Bellevue, and Charlotte exchanges serve parts of the Olivet area; consequently many

long distance calls had to be made. Many long distance calls were made to Lansing and East Lansing.

The policy followed was to get the information or get the job done at the opportune time rather than to wait for a more convenient time which might save a few cents.

Using Letters and Post Cards

A full-time secretary was employed and kept busy most of the time. A policy followed was to keep people well informed. This, of course, meant a considerable amount of mailing of information to tell about a meeting and mailing of results of the meeting in some cases.

With over 200 people in the three phases of the program, considerable mail was sent.

Using the Office

A small office was provided for the director in the school. There was room for a desk, file, library table, and three chairs. At one end of the room a bulletin rack was made on which from six to ten copies of 56 different bulletins were hung. The library table was used for a display of books and literature that were of interest to adults. The three chairs in addition to the desk chair were enough for most office callers. By January first, the room proved to be none too large for materials and equipment that needed to be stored there.

Using Group Meetings

As previously mentioned the council recommended the use of small group meetings. These meetings were generally arranged to be held in neighborhoods where the activity was to take place. Only in a few cases was a general announcement made for large meetings at the school. Many meetings were held in the school for such groups as dairy improvement members who were located over a wide area. Soil meetings were held at the school for the purpose of instructing special teachers. Some local farmers attended these meetings.

Using Local Organizations

Local organizations, both agricultural and non-agricultural, were of great assistance in developing the program. An older man who was a member of the Olivet Grange felt there was great need for what he called "pasture renovation." He "sold" the Olivet Grange and the Emma Grange on doing something about this problem when he learned that the adult program was to be based on what people considered to be important. This was emphasis from another source on the soils problems. These two groups without stimulation from the director took the action described above. As previously mentioned no opportunity was missed to discuss agricultural or community problems with any groups.

Using Government Agricultural Agencies

Prior to making any planned activities, contact was made with the Extension and Soil Conservation Offices in Eaton and Calhoun counties. General agricultural problems of the Olivet area were discussed. In most cases the local representatives for these agencies had been in the counties for a number of years and hence were able to give valuable information. It was stressed that the adult program was to dovetail with existing programs and not to compete with them. All representatives were very favorable and offered assistance where necessary.

Developing A Publicity Program

The Olivet Optic, the local weekly newspaper, is very friendly toward the school and has a wide circulation. Twelve hundred copies are published weekly and most of these go to residents of the area.

Complete publicity was given in that paper on the decision of the school to accept the funds from the W. K. Kellogg Foundation to implement the program. Later a story was published on the hiring of a director. A complete story of events prior to July 1, 1946, was published, together with a picture of the director, the last week in June, 1946. No further publicity was given until the middle of August when the director arrived in the community to live after completion of summer school.

Personal contact was then made by the director with the weekly papers, including the Bellevue Gazette, the Charlotte Republican-Tribune, and the Eaton Rapids Journal and with daily papers that covered the area, including the Marshall Chronicle, the Battle Creek Enquirer News, and the Lansing State Journal. Only the Eaton Rapids Journal was uninterested in news stories from Olivet. About January first the Springport Signal, also a weekly, started to accept publicity of the program.

Weekly news stories were sent to all of the papers starting September first. All the papers seemed to be interested in the news and practically all of the stories were printed. An example of this publicity is found in Appendix N.

It took about six weeks for the director to become oriented and acquainted with the community. It was not until the latter part of September that objectives were definitely formulated for the program.

CHAPTER V

OBJECTIVES FOR THE PROGRAM

After considerable study of the data and available information gathered from local people as previously described, the objectives for the program were decided upon. First consideration on specific objectives was given by the board of education on June 8, 1946. Work and study on the part of the director were continued during summer school. Considerable data and information were compiled after arrival on the job in August. After putting all the evidence together, three prominent needs came to the surface and were crystallized at the second advisory council meeting on October 31. Many other needs were, and still continue to be, in evidence. It was desired that the objectives be simply stated, few in number, and stated in such a way that goals could be established and evaluation made with reasonable accuracy.

The three primary objectives for the Adult Education Program with secondary objectives are listed below:

1. Raising the farm living level through an improved dairy production program. The goal was to include 150 farms in the following phases:

Goals--	Number of farms
a. Breeding	
(1) Establishing an artificial breeders' association	30
(2) Improving herd sires	10
b. Improving feeding	100
c. Improving housing	
(1) Remodel barns	30
(2) New construction	3
d. Improving pasture	100
e. Raising calves and young stock	50
f. Improving sanitation and disease control	75
g. Increasing production of milk	100
h. Providing milk-testing service for local farmers by Olivet department of agriculture	20
i. Improving health of people through proper use of clean milk from healthy cows	100

2. Raising the level of farm living through farm mechanics by use of the school shop and mobile shop in the following phases:

	Number of farms	Number of Mach. or other
a. Learning to operate, care for, repair, and adjust farm machinery and equipment	50	100
b. Repairing trucks and tractors	20	25

		Number of farms	Number of Mach. or other
c.	Installing home conveniences	10	10
d.	Remodeling farm buildings	20	25
e.	Remodeling farm homes	5	5
f.	Constructing labor-saving devices	30	75
g.	Constructing farm equipment	20	25
h.	Installing electric wiring	20	25
i.	Improving health of people through proper sanitation and improved efficiency	100	

3. Raising the farm living level through an improved soil conservation program:

		Number of farms
a.	Conserving soil through complete conservation plans	20
b.	Putting into effect 10 or more improved practices	80
c.	Testing soil for nutrient deficiencies for all farmers requesting such service	100
d.	Conducting demonstrations in test strips, fertilizer plots, and run-off plots	50
e.	Improving health through improved fertility of the soil	50

These objectives were set up to be accomplished over a three-year period starting July 1, 1946.

It may be that some secondary objectives will be added to one or more of the three primary objectives.

CHAPTER VI

GETTING THE PROGRAM INTO ACTION

Chapter IV on procedure covers many of the points of getting the program into action. Much of the work discussed in Chapter IV was necessary before the objectives were established. Some of the work such as forming the advisory council is a job that is done only once. Continual follow-up is necessary, however, in that activity as in others if the activity is to continue.

The following activities as discussed in Chapter IV were continuous throughout the program. In some of these, a higher degree of effectiveness was achieved than in others.

1. Getting acquainted with the people and the community leaders.
2. Getting acquainted with agricultural organizations in the area.
3. Using the advisory council.
4. Using personal calls.
5. Using telephone calls.
6. Using letters and post cards.
7. Using the office for receiving callers.
8. Using local organizations.
9. Using governmental agricultural agencies.
10. Developing the publicity program.

Dairy Improvement

The dairy program was developed first with only one phase, the milk testing and the related problems, receiving emphasis the first year.

As the local Dairy Herd Improvement Association had been without a tester for nearly a year, many farmers were asking for a solution to this problem.

As many high school departments of agriculture in the state had been carrying on herd improvement programs, the possibility was strong that Olivet could carry such a program. T. H. Kerrey, the local agricultural instructor, was approached on the proposition and was favorable.

A list of the members of the former D.H.I.A. was secured and personal visits made to each farm. Explanation was made to each farmer that the Olivet department of vocational agriculture would start an owner-sample dairy improvement program, if enough farmers desired the service. A small monthly charge would be made for the service. Students would test the milk brought in by the farmer on a set day. Students would do all the calculations and keep a simple record for each herd owner. Farmers would have to purchase sample bottles, dairy scales, milk sample dipper, and a box in which to carry the bottles.

Twenty-two farmers liked the idea and wanted to start immediately. The testing started October 14.

The farm-shop class constructed the boxes for 50 cents each. Thus, even though the program was for adults, two school departments were affected by the program.

Mr. Kerrey ordered all the necessary equipment. The director then delivered the equipment to the farm the first time and collected for the material purchased. The date for the first test, and instructions on taking the milk samples were left with each farmer. As each farmer brought in his samples, he was given empty sample bottles, a milk weight sheet, and the next testing date.

Mr. Kerrey supervised all the testing and calculation while the director assisted the farmers with their problems.

An evaluation of this program is presented in Chapter VII.

Farm Mechanics Program

The farm mechanics program was strongly advised by the advisory council at the second meeting. It was thought at that time that a trailer could be constructed to carry tools and a workbench that would enable farmers to do most of the farm repair and construction jobs that should be done on the farm. This idea did not develop because it was found that over $200.00 would be required to build such a unit. Knowing that Mr. Nesman, Chief of the Agricultural Division

of the State Board of Control for Vocational Education, was very interested in developing the mobile-unit idea, a call was made to his office. The director learned that the War Surplus Property Service had a navy mobile unit in the state. It developed that this unit was allocated to the public schools at Marine City, a small town north of Detroit. Most of the tools in the unit were taken by the Marine City school but no use was made of the four-wheel, six-ton trailer. This trailer was secured by Walton Township Unit School. Figure 10 shows the unit on the road to Olivet.

The following equipment came with the unit: a Wyllis powered 110-volt generator and air compressor which was attached on the front of the unit, an air hammer, a Barrett brake drum lathe, a riveter with all the attachments, a portable hydraulic press with attachments, a gear and wheel puller set, a cylinder hone, a valve refacer and a valve seat grinder with all the attachments. This equipment excluding the generator was valued at $1500. All the equipment was new.

The unit was slightly remodeled inside to carry two four-by-four foot wall boxes for hand tools. Enough hand tools from war emergency classes were located at the school to fill one box. Equipment from the unit filled the other box. The unit was painted red with the school's name in

white on each side. A picture of the remodeled unit is shown in Figure 11.

During this time the director was trying to locate a suitable building outside Olivet where classes could be held. Four possible buildings were located in the territory by asking farmers if they knew of possible buildings.

Ten farm calls were made in the Narrow Lake neighborhood in an effort to arouse interest in a farm machinery repair class. A meeting was called on January 7 at the Hunt School. Only three farmers attended. It was decided that a class should not be started in that neighborhood at that time but it was suggested that the farmers from the Narrow Lake neighborhood visit a class that was operating to show them what could be done.

Immediately the director called on Robert McManus, a farmer living ten miles northeast of Olivet. From him were secured names of 20 farmers whom he thought would be interested in farm machinery repair. January 14 was also set as a date for the organization meeting in his shop. Six of the farmers were called on, the program explained, and these farmers were asked to tell their neighbors about the meeting. On that evening 18 farmers were in attendance to have questions answered regarding the farm machinery repair class. Ten of these farmers stated that they would attend if the class was formed.

On January 20 at nine o'clock in the morning the

Figure 10. Mobile Shop Unit on Way to Olivet

Figure 11. Remodeled Mobile Shop Unit. W. P. Schroeder, Director of Adult Education, on the left and Sterling Treadwell, Special Instructor in Farm Mechanics, on the right.

class started. Nine men were enrolled and continued through one thirty-hour course. A summary of the work completed is in Chapter VII.

Prior to starting a second farm machinery repair class in the Olivet bus garage, cards were sent to 150 farmers in the Olivet area who at one time or another had shown interest in farm machinery repair work.

The card stated that a meeting would be held in the school shop on February 5. The weather was bad on that night and only two farmers attended. At all times the program was given wide newspaper publicity.

The class was started on February 10 with six farmers. The class operated from 9:00 to 12:00 o'clock in the morning and from 1:00 to 4:00 o'clock in the afternoon, Monday through Friday. An average enrollment of 12 men continued through five continuous weeks. No farm calls were made to promote this class. Many farmers asked about the class when talking to the director on the streets of Olivet or elsewhere.

No other farm machinery repair classes were held.

Soil Improvement Program

The soils improvement program was developed concurrently with the farm mechanics program.

In looking forward to the development of a soil improvement program, the opportunity arose to use one farm near Olivet as a demonstration farm. This farm, owned and

farmed by Bryon Waddell in partnership with his father, was used as a laboratory for a soils workshop held October 15 and 16, 1946, for teachers of vocational agriculture. This was sponsored by the State Board of Control for Vocational Education and the Division of Education, Michigan State College, with the cooperation of the Soil Conservation Service and Extension Service. Complete working plans for a soil-improvement program were developed for this farm. These plans were used in the adult-farmer classes which were held later. One prospective special teacher attendad the two-day work-shop session. It later developed that Byron Waddell, who is an American Farmer in the Future Farmers of America, was one of the leaders of a soils discussion group.

The following procedure was followed in organizing eight neighborhood discussion groups for organized instruction in soils:

1. Locate a capable leader by going directly to a man or asking neighbors for the names of men.
2. Secure the leader's consent to lead a group.
3. Ask the leaders and others for names of neighbors who might be interested in a soils discussion group.
4. Call on several of the people listed and explain the nature of the soils program. An invitation was extended to these people and they were asked

to invite neighbors to the first meeting which was usually held in the discussion leader's home.

5. Send post-card notices of the meeting to arrive one day prior to, or on the day of the meeting. The mailing list was under constant revision and addition.

Selection and Training of Special Teachers

The selection and training of the special teachers was one of the important jobs that added to the success of the soils discussion groups. Very few of the prospective teachers accepted without considerable persuasion. Most of the reluctance to accept was founded on a sincere opinion that they were not qualified to do the work.

The eight regular teachers and one substitute teacher did not seriously object after the work of the special teachers was thoroughly explained. The payment of $50.00 to each teacher for teaching ten lessons may have been a factor that influenced men to accept the job.

Six of the teachers had some previous experience in leading discussion groups. In all cases the teachers were good farmers and recognized leaders. Three of the men were under 25 years of age. The remainder were less than 50 years old.

Some time was spent in teaching the men techniques of leading a discussion. One-half of the first meeting was

devoted to a demonstration on how to lead a discussion. This was done by the director who drew from the group the main points of good discussion technique. The teachers were able to participate and also see the demonstration conducted. Extension folder F-39 entitled "Making Group Discussion Meetings Click," published by Michigan State College, was then handed to each member. Further discussion followed on other points that were listed in the folder. The discussion procedure was used in all future meetings.

Occasionally points of proper discussion procedure were reviewed at later times in class sessions for these teachers. The remainder of the first meeting was devoted to deciding the important soil problems of the area and these were organized into ten lessons.

The director conducted the second meeting and parts of remaining meetings. The eight remaining meetings were conducted largely by Mr. Kerrey and four student teachers from Michigan State College.

The special teachers gained information on soils subject matter in all meetings but the first.

Mimeographed copies of each lesson were prepared previous to each meeting for special teachers by the director, Mr. Kerrey and student teachers.

These lessons in three cases were in outline form. As the discussion progressed in the teachers' meeting, the men made suitable notes in space provided. A copy of lesson

two is in Appendix O. Enough copies were mimeographed to provide lesson sheets for each neighborhood class member. Each special teacher took copies from each teachers' meeting for his local group. The special teachers conducted local group discussions in a manner similar to the special teachers' meeting.

The director visited each group at least twice during the ten weeks. No group was visited on the first meeting night, as it was thought advisable for the special teacher to meet his group the first time without "interference" from the director.

Visits to local groups by the director were to conduct soil and plant tissue test demonstrations, or to show pictures.

Each of the special teachers was met individually one or more times to work out problems in conducting the discussion for his group. The director was also busy before and after each teachers' meeting in checking details with special teachers. In some groups attendance was irregular and work with the teacher at the group sessions and on his farm was necessary. Many personal contacts were necessary to keep some of the classes in operation. One community group which would have been number nine, did not materialize even after considerable effort was made to organize it.

Not all techniques of promotion, discussed in this chapter, proved to be successful in all cases. The personal contacts produced the best results. The effectiveness of

any particular method of promotion is difficult to measure. Such measures are not the primary purpose of this study. The real measures of the success for the program are in the improvement of those phases of agriculture listed in the objectives.

CHAPTER VII

EVALUATING THE PROGRAM

One of the important phases of the whole program is the phase of evaluation. Evaluation is important to:

(1) Determine progress towards goals or objectives.

(2) Aid in determining the effectiveness of those directing the program.

(3) Provide information of value in appraising the whole program.

The project was started on July 1, 1946, and the actual program was in operation about seven months when this report was written. Hence, it was possible to measure only part of the outcomes.

Several methods were used for evaluating the program thus far. These were:

1. Noting of changes which had taken place in agriculture, such as numbers and kinds of machinery repaired and cows culled, which were accomplishments in terms of stated objectives. This type of measure has been presented in record form as is to be noted later.
2. Picture records of activities.
3. Picture records of results.
4. Individual's opinions of results.

5. Stated intentions of participants in the program of changes to be made on local farms.

Further and more complete evaluation can be made in the future.

Evaluating the Dairy Improvement Program

The dairy improvement program was the first to get underway. Figure 12 shows the location of the farms cooperating in this phase of the program. Only two of the original farmers dropped from the program. Although the dairy program will receive emphasis in neighborhood discussion groups next winter, some achievements have been noted this winter.

Mr. Kerrey states that 31 cows have been culled from 20 herds since October 14, 1946. They were culled because of low production which was discovered by testing each cow's milk for butterfat and computing her production.

A beginning was made on improved health of people through the proper use of clean milk from healthy cows. The director supervised one field trip with the students of vocational agriculture at Olivet where a demonstration was given on cleanliness in milking and proper procedure in securing samples of milk for mastitis testing. All producing cows in the herd visited were sampled for mastitis. These samples were then taken to the Olivet College bacteriology department where students viewed the samples through a microscope.

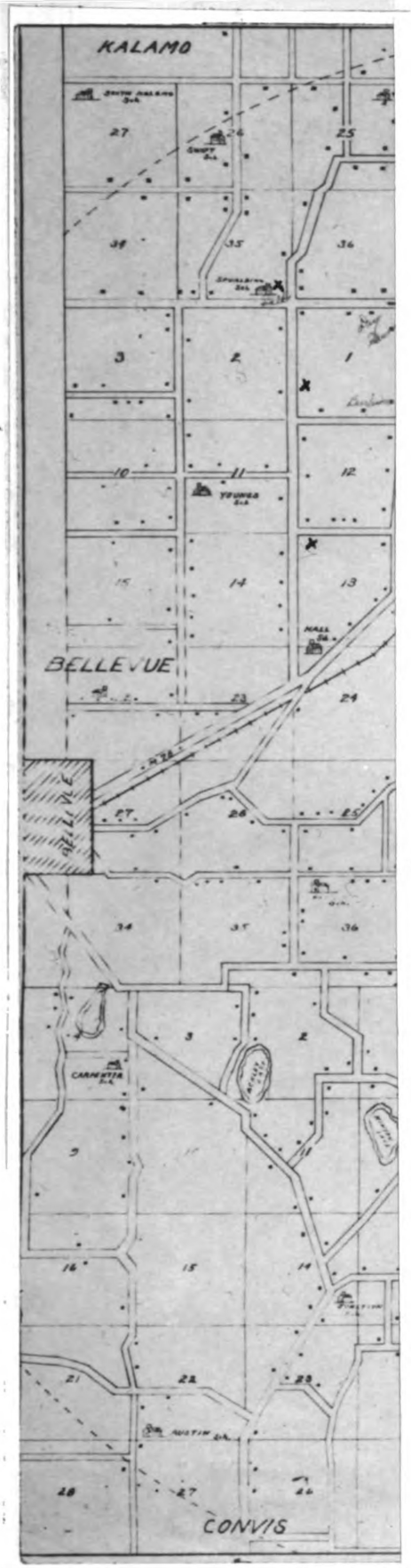

Figure 12. Location of Dairy Improvement Members.

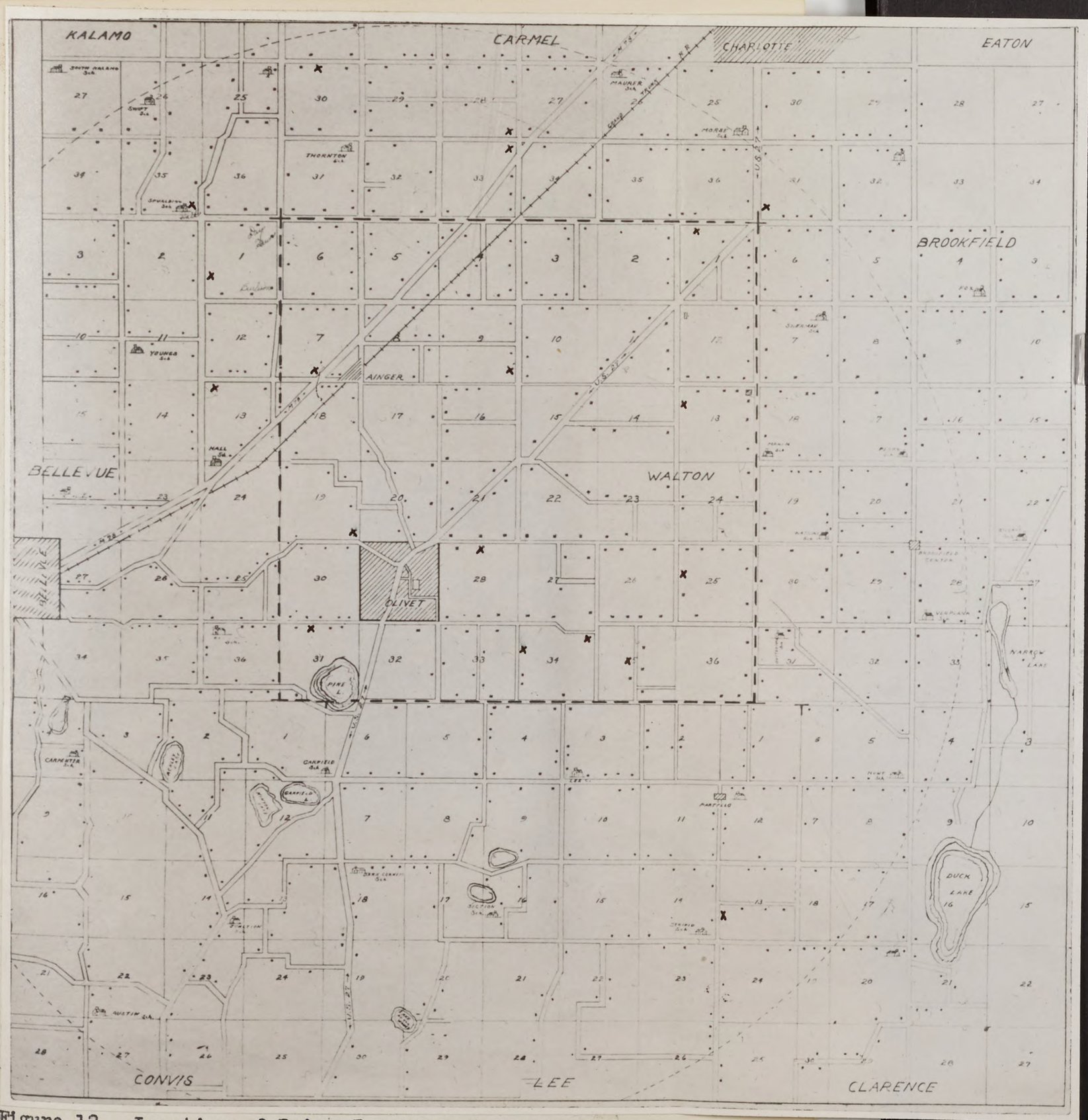

Figure 12. Location of Dairy Improvement Members.

The director is now in the process of assisting all farmers, especially those in the dairy herd improvement program, in getting all cows of producing age tested for mastitis, and in establishing a continuous testing program.

Figure 13 shows a demonstration for students in agriculture at Olivet High School on taking mastitis samples from one of the herds of one of the adult farmers.

To determine the opinions of the herd owners in the dairy improvement program, a questionnaire was given to each of 20 farmers in this program. Eleven of these were returned. The questionnaire, together with the results, is shown in Table IV.

The data indicate:

1. Herd owners are reasonably well satisfied. None checked unsatisfactory on any question.
2. It is interesting to note that most farmers requested more "on farm" service, but prefer to have herd books mailed or to attend a meeting to get the books. Attendance was very poor at the meetings of herd owners during December and January, and as a result these were discontinued. According to the survey, farmers liked the monthly meetings. As a result of this, the monthly meetings will be resumed.

This information was discussed with T. H. Kerrey, the instructor in agriculture, and with the students doing the testing.

Figure 13. The Director Demonstrating How to Take Mastitis Samples.

Listed below are comments from some of the herd owners:

> "I enjoy the discussion at the monthly meetings and would like to attend regularly. I would like to use one of the herd books (the simplified book) the others are using rather than start a new year in the D.H.I.A. book."
>
> "I think it is a very worthwhile project and should be continued."
>
> "The program is OK. I would like to see more done on feeding."
>
> "I am not gaining very much benefit from the actual testing and usually find it impossible to attend the meetings. The tests vary quite a bit on individual cows, so much in fact that it is difficult to reach conclusive decisions on value of this animal."
>
> "I think they are doing good."
>
> "I think it is a good program and I think the 'on farm' service would also help. They might also figure the average herd test."
>
> "I would like on-the-farm testing. I would like to have herd-test figures."
>
> "I think the monthly meetings were worthwhile if the weatherman cooperates."

The milk testing is only an emergency service for farmers until a regular D.H.I.A. tester can be secured. However, the overall improvement work will be continued and will receive greater emphasis this coming year.

Evaluating the Farm Mechanics Program

The farm mechanics program is more readily evaluated

TABLE IV

RESULTS OF DAIRY IMPROVEMENT

Question	Response
1. Are you satisfied with the present program?	
Very satisfactory	5
Satisfactory	6
Unsatisfactory	0
2. How well do you think agricultural students are doing the testing and calculation?	
Very well	4
Satisfactory	6
Occasionally done poorly	1
Unsatisfactory	0
3. Do you like the monthly meetings at which herd books are returned?	
Yes	9
No	0
4. Would you like to have the books delivered to your farm each month by either Mr. Schroeder or Mr. Kerrey, mailed or attend a meeting?	
Delivered	1
Mailed	3
Attend a meeting	5

TABLE IV (continued)

Question	Response
5. Would you like to have more "on-the-farm" service in your dairy program? If yes, check service desired.	
Yes	7
No	2
Feeding	3
Breeding	1
Sanitation	0
Use of records	1
Pasture improvement	3

than the soils or dairy program. Pictures of men at work on farm implements are shown in Figures 14 and 15.

Figure 14. Farm Machinery Class in Operation at McMamus Shop.

Figure 15. Farm Machinery Class in Operation at Olivet School Bus Garage.

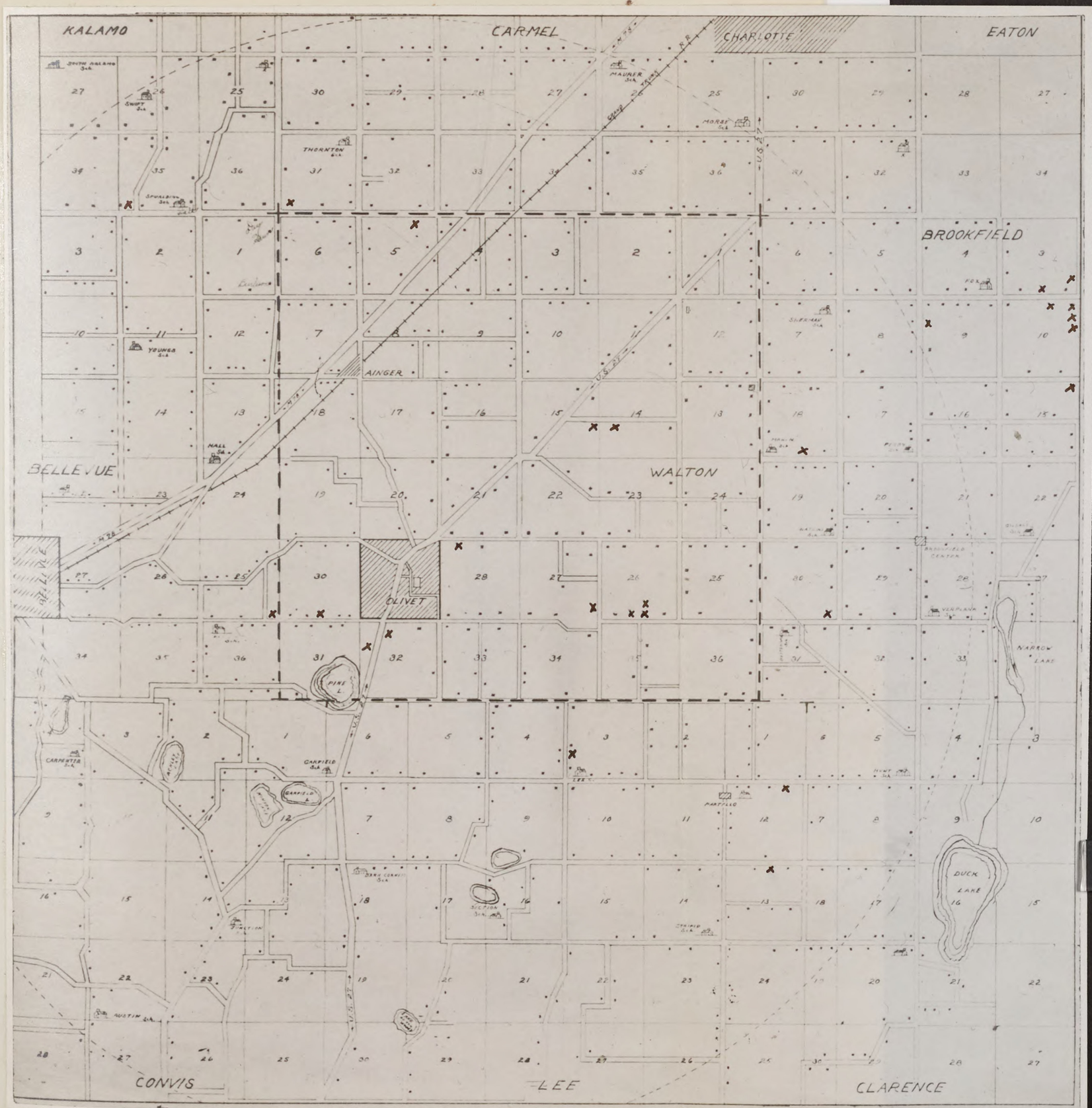

Figure 16. Location of Farm Machinery Class Members.

Sterling Treadwell, the instructor, was very competent and exacting in his instruction. All the farmers received more than a repair job. They all in some degree gained the "know how" for repairing the implement brought to the shop.

One weakness of the instruction might be the fact that little related instruction in farm mechanics was given. Only the job at hand was done and extras such as saw-sharpening and drill-grinding were not taught. This is a point among others that should receive emphasis next year.

Tables V and VI show a summary of the work done by each class member in each shop.

Evaluating the Soils Improvement Program

The soils improvement program was well established during the winter months. In all, 107 persons were enrolled in adult classes. Number of persons participating in a program does not always indicate a successful program. However, in large and small groups attendance was fairly regular and interest seemed to be high. In group meetings, soil problems were always quickly recognized and those attending the groups seemed anxious to do something about their problems. Discussion was always lively in the teachers' meetings. Several times, problems were discussed for which no immediate answer could be found. The subjects for discussion were outlined at the first meeting by the special teachers.

TABLE V

SUMMARY OF FARM MACHINERY REPAIR CLASS

McMANUS SHOP, JANUARY 21 - JANUARY 30, 1947

STERLING TREADWELL, INSTRUCTOR

Name	Machine	Original Value	Finish Value	Increase in Value
Milo Ashton	Tractor Wheels	$ 50.00	$ 70.00	$ 20.00
Hall Ellsworth	Double disc	40.00	175.00	135.00
Max Johnson	John Deere A tractor	800.00	900.00	100.00
	Mount plow on rubber	80.00	125.00	45.00
Earl Marquardt	John Deere B tractor	600.00	650.00	50.00
Wilbur McClure	Farmall H. tractor	800.00	900.00	100.00
	Double disc	80.00	150.00	70.00
Alden McManus	F 14 tractor	400.00	600.00	200.00
Jack McManus	Welding hitch and tractor wheel	150.00	250.00	100.00
Robert McManus	Helped A. McManus			
Lawton Swan	Mounted steel wheels on rubber	50.00	150.00	100.00
	John Deere B tractor	400.00	500.00	100.00
Totals		$3,450.00	$4,470.00	$1,020.00

TABLE VI

SUMMARY OF FARM MACHINERY REPAIR CLASS

OLIVET SCHOOL BUS GARAGE, FEBRUARY 10 - MARCH 14, 1947

STERLING TREADWELL - INSTRUCTOR

Name	Machine	Original Value	Finish Value	Increase in Value
Gerald Miller	M. M. Tractor	$1,450.00	$1,550.00	$100.00
John Berkimer	F - 14 Tractor	350.00	500.00	150.00
James Hall	Olivet 70 Tractor	1,300.00	1,450.00	150.00
Kenneth Putney	B N Farmall	600.00	750.00	150.00
Cecil Heisler	Welding on Drill and Repair Tractor	150.00	165.00	15.00
Carl Reid	Model -A- John Deere	750.00	900.00	150.00
Carl Winegar	Case Tractor	800.00	900.00	100.00
Lester Day	Model -A- John Deere	800.00	950.00	150.00
Robert Merrifield	Repair and Paint Drag, Plow, and Tractor	1,100.00	1,300.00	200.00
Ed. Borgman	Paint Truck	800.00	900.00	100.00

TABLE VI (continued)

Name	Machine	Original Value	Finish Value	Increase in Value
Kenneth Moon	Case Tractor	$ 900.00	$1,000.00	$100.00
Merlin Moon	Case Tractor	1,200.00	1,215.00	15.00
Roy Leonard	Repair Truck	600.00	675.00	75.00
Gerald Little	John Deere B Tractor	800.00	850.00	50.00
William Little	Wagon	50.00	75.00	25.00
Sterling Treadwell	Paint Tractor	700.00	775.00	75.00
Wayne Turner	Gas Engine	5.00	15.00	10.00
Cecil Heisler, Jr.	Paint Disc	75.00	90.00	15.00
Totals		$12,430.00	$14,060.00	$1,630.00

Figure 17 shows one of the meetings of the teachers. One of the groups where both men and women attended is shown in Figure 18. This group was led by Byron Waddell. Although the group was not large, the interest was high, and the attendance was regular, and the sociability was high. These people were in Byron's neighborhood and in all cases older than Byron. It may be because of Byron's demonstration farm that three of the farmers in the group have requested service from the Soil Conservation Service.

Table VII lists the response of class members to practices decided by the teachers as being important. This list was given in duplicate to some class members at the last meeting of the class. Where the list was not received, duplicates were mailed to the member. Each class member kept one for himself and the other was filed in the office. A copy of the questionnaire is in Appendix P. These lists are used in follow-up work, as every farm will be visited at least once during the spring or summer. The number of visits will be governed by each farmer's needs.

Of the people enrolled in eight soils classes, 21 were farmers' wives and four were farmers' sons. This reduces to 82 the number of farms represented. Of this number 59 persons received diplomas at the night school banquet. For these 59 farms 25 forms for intentions of soil improvement practices were filled out on or before April 18.

Figure 17. Special Teacher Instructional Meeting at Olivet School Agricultural Room.

Figure 18. North Walton Soils Discussion Group, Taught by Byron Waddell.

The summary of these intentions is shown in Table VII.

Although less than half of the reports are in, certain tendencies can be noted. (The remaining reports will be secured by personal visits to the farms.)

The data in Table VII indicate that:

1. A reasonable understanding was gained through class discussions as shown by an average of 8.7 practices which each farmer plans to do as compared to 6.4 now being done.
2. Further indication of understanding of subject matter is indicated by an average of 3.2 practices per farm on which farmers are requesting more information.
3. It is reasonable to assume that more practices per farm would be listed under "Doing Now" and "Plan to Do" because farmers aided in deciding what practices should be approved at the last meeting of the special teachers.

In the soils program, as in the farm machinery program, one class did not materialize. Considerable effort was put forth in the Duck Lake area to get a class started. Two possible reasons for failure could be that, (1) the Duck Lake territory is only partly in the Olivet School area and (2) the leader, a young farmer, was making plans to get married at the time the class was being formed.

TABLE VII

SUMMARY OF SOIL IMPROVEMENT PRACTICES

	Question	Doing Now	Plan to Do	Need More Information
1.	Test permanent pasture soil and fertilizer or lime as needed	3	15	3
2.	Establish one acre of alfalfa-brome pasture for each milking cow	11	10	1
3.	Test soil for lime and fertilizer as needed	8	13	5
4.	Use sudan grass for emergency hay and pasture	4	3	3
5.	Use soy beans for emergency hay	4	2	1
6.	Sow 100# of 0-20-20 or equivalent per acre at seeding time in heavy soils for each year seeding is used	5	8	3
7.	Sow 300# of 3-9-18 or 3-9-27 or 0-9-27 on light soil at seeding time	2	5	3
8.	Top dress seeding on light soil after first cutting with 200-300# of 0-9-27 or 0-12-12 per acre of every other year	3	6	5
9.	Clip alfalfa-brome or sweet clover if crop approaches seeding stage	3	6	5
10.	Plant cover crops in cultivated crops, especially corn	0	18	3
11.	Plant rye-grass and sweet clover in last cultivation of corn	0	18	2

TABLE VII (continued)

Question	Doing Now	Plan to Do	Need More Information
12. Seed a legume in every grain crop	12	4	1
13. Use high percent legumes as a cover crop	11	7	3
14. Plow under green crop before seed stage	6	7	1
15. Always keep a crop on the soil	11	7	2
16. Apply 6-8 tons barnyard manure per acre before corn	15	6	0
17. Top dress wheat with barnyard manure	10	5	2
18. Apply 0-20-0 in soil on which manure has been applied	2	5	2
19. Watch for hunger signs in crops and fertilize when needed	2	12	11
20. Test soil and plant tissue for N, P and K and fertilize as needed	0	10	10
21. Strive to sow an average of 100# of fertilizer per tillable acre per year	13	8	1
22. Develop and use a good cropping program	12	11	0
23. Develop a cropping program to fit the soil and produce needed crops	9	10	4
24. Provide adequate drainage	5	11	6
25. Cooperate with neighbors on drainage problems	9	10	3
Total	160	217	81
Average per farm	6.4	8.7	3.2
Farms reporting - 25			

One of the outstanding outcomes of the soils program was the cooperative development of the Waddell farm as a demonstration farm. Byron and his father are working on changes in the farm program which will be visible this summer. It was partly because Byron participated in this demonstration that he was chosen to be a special teacher even though he was only 22 years old. In Byron's group, three farmers signed with the Thornapple-Grand Soil Conservation District. A total of four other farmers from other discussion groups have joined the district. This farm will be used as a demonstration farm for soil conservation practices that may be slightly different from practices on other farms in the Thornapple-Grand District.

One thousand red pine seedlings were also planted in the area for reforestation and windbreaks.

The location of class members is shown in Figure 19.

The over-all evaluation is summed up in the next section.

The Over-all Evaluation of the Program

In evaluating the over-all program, moderate success was experienced to date in carrying out the three primary parts of the project. These were the dairy improvement program, the soils improvement program and the farm machinery repair program. The success may have been due in part

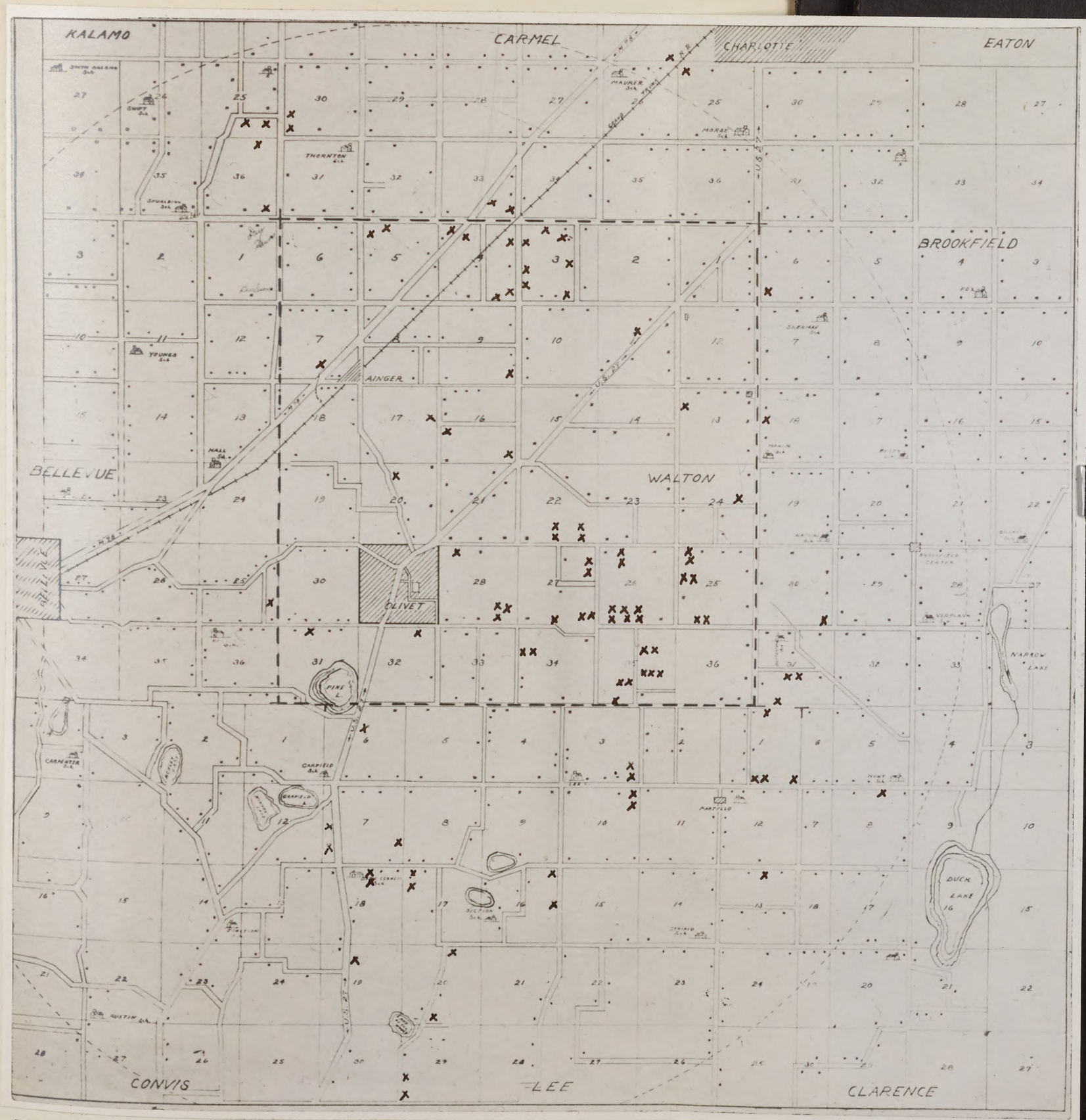

Figure 19. Location of Soils Class Members.

to the procedures used to get favorable responses from people in the community.

The school administration has stated several times that more good will toward the school has been created in the area than has existed for many years. This could be due largely to meeting people where they are, rather than asking them to come to the school and meet school officials or teachers. In many cases people did not have to dress up when going to neighborhood meetings. A certain stiffness always seems to persist in meetings held at the school. Only a small percentage of people in the area attend school functions.

In the director's opinion, some of the reasons for wide response to the program are listed below:

1. A strong effort was made to get acquainted with the people and the leaders of the community. Being friendly and interested in their problems was always paramount.
2. Leaders and some members of all the agricultural organizations in the area were visited. Interest in their program was shown on the part of the director. This led many times to the comment, "Let us know if we can help in any way."
3. The advisory council was an important factor in building public relations for the program and the school. First, the advisory council provided an

opportunity for democratic planning at the "grass roots" level. A second equally important outcome of the advisory council was that first-hand information of program plans and activities was carried to local communities by people who helped make the plans. The advisory council members were constant evaluators of the program.

4. Through personal calls people became familiar with the director. Although direct mailing and publicity have a place, nothing can substitute for face-to-face conversation either in promoting or keeping a program alive. Many farmers expressed unfavorable opinions about agricultural leaders who spent too much time in the office and not enough time out on farms. Farmers, in general, like to have agricultural leaders come to the farm dressed in suitable clothes for the occasion.

Calls at the times requested by the farmer or when the job should be done were always much more valuable than delayed calls. A compilation of visits of the director is listed in Table VIII. The non-farm calls in most cases were calls on the county agricultural agent or persons connected with similar types of agencies.

TABLE VIII

SUMMARY OF VISITS AND MILES DRIVEN

BY THE DIRECTOR OF ADULT EDUCATION

	Farm Calls	Non Farm Calls in the Community	Calls Out of the Community	Miles Driven
July	1	1	14	814
August	24	27	8	527
September	24	7	13	387
October	36	7	27	794
November	30	13	26	857
December	34	1	16	679
January	64	7	26	964
February	14	12	32	851
March	27	9	16	414
Totals	254	84	178	6,287
Average per month	28.2	9.3	19.8	698.5

5. Telephone calls saved many miles of driving and considerable time. Such calls were used to confirm some point or in some cases make important decisions both locally and out of the community. Telephone calls were a good substitute for personal calls.
6. Letters and post-cards ranked third in effectiveness of getting people to do things. This method is the least expensive and the quickest way to contact many people. A summary of first and second class mail sent and first class mail received is listed in Table IX.
7. Articles in newspapers rank fourth in effectiveness of getting people to do things. However, publicity in newspapers serves more to inform people about the program. For this purpose the newspapers are excellent. News of the program was supplied to and printed by all the newspapers covering the area. The newspapers cooperated very well and were anxious to get the news.
8. It is important to have an office in which records and materials can be kept. It is equally important to devote considerable time to working out details and keeping records of activities. The director does not believe that every hour of the

TABLE IX

FIRST AND SECOND CLASS MAIL SENT AND FIRST CLASS MAIL RECEIVED BY THE ADULT EDUCATION OFFICE FROM JULY 1, 1946 TO APRIL 1, 1947

	Letters Sent	Post Cards Sent	Letters Received	Post Cards Received
July	0	0	2	0
August	5	0	1	0
September	70	0	9	1
October	83	0	7	5
November	48	0	12	1
December	7	0	3	2
January	80	395	3	2
February	42	45	6	0
March	147	37	7	0
Totals	482	477	50	11
Average per month	54.6	53	5.5	1.2

day should be spent out in the community. It is possible to visit some people too often. In general, the forenoon was spent in the office and the afternoon in the community.

9. It was found that people like to meet with their neighbors in small groups. This activity had largely ceased, due to consolidation and closing of rural schools. No adequate substitute had been made for the social activities held in the rural school, although the Farm Bureau discussion groups are making the substitution in two communities. However, these groups came from a much wider territory than one school district.

About 20 farmers was the largest group to attend any of the adult classes at Olivet. In the same territory, with the eight discussion groups, 107 people including many women attended the meetings. Much more sociability was in evidence at the neighborhood meetings. The group discussion technique is apparently very necessary if the community is to be strong, virile, and creative in community improvement.

10. Local organizations other than agricultural offered some assistance in developing the program but not as much as agricultural groups. The non-agricultural groups were of help largely

in promoting good will.

11. The government agricultural agencies were always very helpful. This could be due to the fact that the director made a special effort to cooperate with them. Things were done that helped in the promotion of some of their programs.

12. Care was taken to keep the school faculty informed on the program of activities with adults. The faculty was very interested in the program. Every person exhibited the greatest degree of cooperation in working for the program. The departments of vocational agriculture, farm shop, and typing were especially helpful.

13. An achievement banquet was held at the end of the winter program. People participating in the soils, dairy, and farm mechanics program attended. Certificates from the State Department of Public Instruction were presented to participants in the soils discussion groups and in farm machinery repair classes. An interesting program on soil conservation followed the presentation.

This banquet was attended by 102 people even though it was a new venture for the Olivet community. Figures 20 and 21 show part of the people attending and the presentation of the certificates.

Figure 20. Part of the 102 People Attending the Adult School Banquet.

Figure 21. Supt. W. W. Scott Presenting Class Members Certificates to the Special Teachers.

In general, the process of doing a job or developing the whole program was as important as the outcome in terms of changes in people.

Some weak points of the program to date are:

1. The Advisory Council served in somewhat of a dual capacity with the board of education.
2. The Advisory Council may be too large. All the members have never attended any one meeting. The only person never to attend a meeting was a township supervisor. He has made several promises that he will attend.
3. The program is somewhat experimental and financed from sources outside the school. However, a good feature is that the finances are channeled through the school administration. People in some cases wonder if the program will be continued after the three-year period. In the director's opinion, the school district at present would not finance the program, because all available funds are being used. An increase in local taxes would be necessary to raise the $5,000 budget required for the adult program. If more state aid is available, the school administration and the local people will be favorable

to financing the program. This indicates that the local people do not value the program sufficiently to pay for it. This is one person's opinion and the point could not be proved until a test is made.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The problem in this study was to describe the development of a program of agricultural improvement through adult education in the Olivet, Michigan, community and to evaluate the results. This program was a part of Olivet public school educational activities.

The program in the Olivet community had four phases: (1) to determine the important agricultural problems that needed attention, (2) to develop a plan of action that would improve these problem areas, (3) to carry out the plans, and (4) to evaluate the results.

The purpose of the study was to describe the methods and techniques used in developing the adult education program in agriculture at Olivet. The program was developed largely with the aid of local people and existing agricultural programs and agencies which were local, state and federal. Another important purpose was to show how the public school can be more functional in improving agriculture and building community solidarity.

Literature reviewed by Hamlin, Aderhold, Morgan, and others revealed that many studies have been conducted to determine the need for adult education in a rural community, but few have built a program based on needs and still fewer have evaluated results. It is on the last two points that

the Olivet study was similar to work done by Hamlin but different from other studies reviewed.

The Olivet community is considered to be that area which provides pupils for the consolidated school at Olivet. This area contains 567 farms, is about 108 square miles in size, and covers parts of nine townships. The school is a Township Unit also and receives pupils from 21 sending districts in eight other townships.

The topography of the land is hilly in most of the area. The soil is eroded in many sections. Special treatment for soil is needed in three-fourths of the area. Poor soil has created problems in crops and livestock production. This has led to problems in building, implement and home maintenance.

The action to be taken in solving the agricultural problems of the area was decided by an advisory council of representatives from agricultural organizations in the community. Data from the 1940 agricultural census and the local school department of agriculture, together with people's opinions were used to arrive at three primary objectives for the three year improvement program. These objectives were (1) improving soil, (2) improving the dairy enterprise, and (3) improving farm equipment and buildings.

A program was then put in operation based on the established objectives.

In the soil improvement program eight special teachers,

who were farmers in the area, were trained in weekly instructional meetings on ten soil problems that they considered important. These special teachers then conducted ten discussion group meetings in their local neighborhoods. One hundred and seven persons were enrolled in the eight groups. Emphasis was placed on over-all soil conservation programs for each farm and use of improved soil management practices. Farmers planned changes in soil practices and then put these changes into effect with the aid of the director of the project, the teacher of vocational agriculture, the Soil Conservation Service, and the Extension Service.

A demonstration farm was established in cooperation with other agencies.

One thousand red pine seedlings were planted in the area.

The dairy program will receive greater emphasis in the second year. However, during the first year, 20 herd owners brought milk samples to the Walton school each month to have local students in agriculture, under the supervision of Mr. Kerrey, the teacher of Vocational Agriculture, test the samples and keep the records. A start was made in improving dairy sanitation and disease control through the taking of milk samples to be checked for mastitis.

The farm mechanics program was conducted by a special instructor who had charge of a war surplus, seven-ton mobile

shop unit which was secured and equipped by the school. This unit was used in a farmer's shop building and the Olivet bus garage where a total of 24 farmers repaired or reconditioned 31 farm implements with a finished value of $18,530.00.

Conclusions

There was a reasonably good response to the program. This may have been due to adult classes held in previous years by the local department of agriculture and home economics and to the use of an advisory council. Meetings were conducted by the local department of agriculture during World War II, but on a reduced scale because no full-time director was available.

For the first time in the community an owner sampling, milk testing project was conducted. This service is limited largely by the capacity of the local department of agriculture to handle such work. An interest in dairy improvement work has been created through this program.

The farm mechanics program provided visible results quickly. The mobile shop idea was successful and will be enlarged next year.

Using the advisory council to aid in determining needs and setting up objectives was very worth while, as the local people from all sections of the area had a voice in planning the program.

Special teachers enabled the program to be spread to more people. The use of special teachers and the advisory council developed local leadership and initiative which is important if people are to recognize and solve their own problems.

There was important social change brought about in various neighborhoods through the use of the neighborhood discussion technique.

Implications for a Continued Program

1. If the methods used in the program developed during the first year are continued, the program should enlarge during succeeding years.
2. About 100 farms were reached in all phases of the program. There are over 500 farms in the area. This fact, plus unrealized objectives, gives a focus to work that should be done in the future.
3. Since much of the soil around Olivet has steadily declined in fertility during the last 100 years that it has been tilled, there is a real challenge to change the trend.
4. Declining soil fertility has an effect on farmers' income, health and welfare. Hard work is necessary if the Olivet area is to be made a prospering rural community.

The productiveness of the soil in the Olivet community will determine whether or not it is to be a prosperous, progressive, desirable community or an area that has undesirable economic and social conditions.

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APPENDIX

APPENDIX A

SERVICES OFFERED AT OLIVET

1. Modern food stores
2. New locker plant with butchering and curing facilities
3. Dry cleaning service
4. Modern theatre
5. Banking facilities (locally owned)
6. Hardware stores
7. Lumber yard
8. Eleavator and feed store (elevator at Ainger)
9. Funeral home
10. Home appliance
11. Automobile sales and service
12. Furniture store
13. Car repair service
14. Gas stations
15. Farm machinery sales
16. Farm machinery repair service
17. Clothing shop
18. Shoe repair
19. Beauty parlor
20. Restaurants
21. Drug store
22. Snack bar
23. Meat market
24. Variety store
25. Electric shop
26. Floral shops
27. Jewelry shop
28. Insurance service
29. Barber shop
30. Construction contractor
31. Plumbing
32. Stock yards (Ainger)
33. Machine shop
34. Fuel and oil delivery
35. Livestock dealers
36. Dental service
37. Medical service
38. Electrical contractor
39. Painting contractor
40. Blacksmith
41. Six buses stop at Olivet each day

APPENDIX A (continued)

42. Second class post office
43. College
44. Church
45. Real estate agency
46. Newspaper
47. Job printing
48. Trucking and excavating services

APPENDIX B

OLIVET BUSINESS AND PROFESSIONAL ENTERPRISES

1. Roger Baker's Garage
2. Bartlett's Grocery
3. Weldon Bartlett (electrician)
4. Bib 'n Tucker Snack Bar
5. Bo-Pa Jewelry
6. Bishop Brothers Hardware and Lumber Yard
7. Burkhead's Funeral Home
8. Burkhead's Furniture Store (appliances and flowers)
9. Campbell's Food and Locker Plant
10. Herbert's College Inn
11. Herrick's Community Shoppe
12. E. C. Corey, Real Estate Agent and Insurance
13. Dr. P. H. Engle (M.D.)
14. DeBaun Dairy
15. Farmers' Grain and Fuel Company
16. Frank Fleming (oil dealer)
17. Orville Goodwin (livestock)
18. Elmer Horn's Gas Station
19. Jewell's Garage
20. Janousek's Meat Market
21. Charles Kendall (shoe repair)
22. King's Grocery (and service station)
23. Morgan's Variety Store (and flowers)
24. Myers' Barber Shop
25. Main Insurance Agency
26. McAllen's Grocery (and service station)
27. Rev. Thomas W. Nadal
28. Norton Stock Yards
29. Olivet Cafe
30. Olivet Machine Tool Engineering Company
31. Olivet Optic
32. Olivet State Bank
33. Pratt's Plumbing
34. L. L. Parks and Company
35. Pine Lake Resort
36. Noble Ryor (contractor and builder)
37. Progress Electric Shop
38. Sours' Drug Store
39. Smith's Cleaners (and Flowers)
40. Starks' Beauty Salon
41. Starks and Goodrich (auto and implements)
42. State Theatre
43. Ralph Vahs' Service Station
44. Taylor's Hardware
45. C. VanNortrick (blacksmith)
46. Dr. Raymond Wilks (D.D.S.)
47. Winegar's Dairy
48. Walcott's Olivet Insurance Agency

APPENDIX C

FACULTY AND SUBJECTS TAUGHT AT WALTON TOWNSHIP UNIT SCHOOL, OLIVET, MICHIGAN, 1946-47

Walter W. Scott	Superintendent
Lillian Walcott	Principal (acting)
Thomas Kerrey	Agriculture
Mary Ellen Wood	Home Economics
Gordon McAllen	Science, Coach
Lyle Beardsley	Commercial
Donna Binkhorst	Librarian
Winifred Linsday	English
Martha Trainor	History, Latin, Home Economics
Harold Johnson	Manual Arts, Farm Shop
Lenice Kipp	Junior High
Olive London	Girls' Physical Education
Samuel Robinson	Band
Alice Fletcher	Vocal Music
Martha Turpen	Grade 6
Ruth Bugbee	Grade 5
Bernice Montague	Grade 4
Agnes Halsey	Grade 3
Moreen Zeluff	Grade 2
Florence Ledyard	Grade 1
Mary Grimm	Kindergarten
Hazel Heisler	Grades 5 and 6
Walter P. Schroeder	Adult Education

APPENDIX D

SUBJECT OFFERINGS BY YEARS IN HIGH SCHOOL

WALTON TOWNSHIP UNIT SCHOOL

1946-47

Ninth Grade

Agriculture I
Algebra I
Biology
English
Latin I
Homemaking I
Manual Arts
Band

Tenth Grade

Agriculture II
World or European History
English
Latin II
Band
Homemaking II
Farm Shop
Business Training
Geometry

Eleventh Grade

Chemistry
Physics
United States History
Economics
American Government
Modern Social Problems
American Literature
Advanced Algebra
Band
Trigonometry
Business Training
Shorthand I
Typing I
Latin I
Homemaking III
Agriculture III
Advanced Shop

Twelfth Grade

Chemistry
Physics
American Government
Economics
Modern Social Problems
English Literature
Band
Advanced Algebra
Trigonometry
Shorthand II
Typing II
Latin II
Agriculture

APPENDIX E

1940 AGRICULTURAL CENSUS DATA FOR THE OLIVET SCHOOL AREA

	Walton	Rank*	Brookfield	Rank	Lee	Rank**	Total
Number farms	207	8	180	14	180	7	567
All land in farms	21,527	5	22,249	6	21,357	4	65,134
Average per farm	104	8	124	1	119	8 1/2	237
Crop land harvested							
farms reporting	197	7 1/2	177	15	176	5	550
acres	10,190	10	11,195	6	8,842	6	30,227
Crop failure							
farms reporting	20	1	6	11	9	8	35
acres	154	1	49	13	56	15	259
Plowable pasture							
farms reporting	170	2	99	15	130	10	399
acres	6,130	1	3,387	5	4,859	6	14,376
Crop land idle							
farms reporting	78	2	29	13 1/2	62	10	169
acres	1,122	1	448	14	1,418	9	2,988
Woodland							
farms reporting	103	14	93	15	111	6 1/2	307
acres	1,974	7	1,815	8	1,785	10	5,575

*Rank in relation to 16 townships in Eaton County.

**Rank in relation to 20 townships in Calhoun County.

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
All other land in farms							
farms reporting	178	14	170	15	176	5 1/2	524
acres	1,957	16	5,355	7	4,397	7	11,709
Land used for crops							
farms reporting	198	7	178	14	176	8	552
acres	10,344	10	11,244	7	8,898	9	30,486
Land available for crops							
farms reporting	203	9	179	15 1/2	180	7 1/2	562
Land and buildings							
amount	$946,590	14	$1,232,420	7	$822,090	8	$3,001,000
average per farm	4,573	15	6,847	3	4,567	13	15,987
average per acre	44	15 1/2	55	7	38	14	137
Buildings							
farms reporting	202	9	178	15	175	6	555
amount	$459,320	15	$596,355	9	$423,700	9	$1,479,375
Implements							
farms reporting	171	11	140	16	149	7 1/2	460
amount	$106,817	15	$139,325	11	$110,108	9	356,250
Horses or mules							
farms reporting	152	5 1/2	136	14 1/2	127	7 1/2	415

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Horses and colts over 2 months old							
farms reporting	151	5	136	12	127	5	414
number	462	5	438	8	470	2	1,370
Colts 3 to 27 months old							
farms reporting	4	15	11	13	25	1	40
number	7	15	16	14	50	1	73
Mules and mule colts over 3 months							
farms reporting	1	15	2	12	6	3	9
Hogs and pigs over 4 months							
farms reporting	115	8	114	9	111	8	340
number	858	9	1,105	5	811	12	2,774
Sows and gilts to farrow							
farms reporting	95	7	92	8	82	10	269
number	286	7	326	3	249	8	861
Cattle and calves over 3 months							
farms reporting	174	11	157	15	143	9	474
number	1,986	4	1,880	8	1,649	10	5,515

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Cows and heifers 2 months or over							
farms reporting	172	9	155	15	141	9	468
number	1,231	3	1,229	4	882	11	3,348
Cows and heifers milked							
farms reporting	172	9	157	10	133	12	462
number	1,174	4	1,162	5	804	11	3,140
milk produced (gal)	702,789	6	716,190	4	413,885	7	1,832,864
Butter churned							
farms reporting	5	16	14	8 1/2	19	10	38
pounds	1,145	15	5,214	4	3,962	7	10,348
Whole milk sold							
farms reporting	138	2	97	8 1/2	42	10	277
gallons	538,347	4	501,662	6	179,132	15	1,219,141
Cream sold							
farms reporting	31	13	53	9	70	10	154
pounds of B. F.	30,899	11	64,683	7	43,826	12	139,408
Butter sold							
farms reporting	3	9	2	12	2	12	7
pounds	460	10					460
Sheep and lambs over 6 months							
farms reporting	60	9	63	7	54	7 1/2	177
number	1,837	7	2,388	5	2,035	3	6,260

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Cows and heifers 2 months or over							
farms reporting	172	9	155	15	141	9	468
number	1,231	3	1,229	4	882	11	3,348
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farms reporting	138	2	97	8 1/2	42	10	277
gallons	538,347	4	501,662	6	179,132	15	1,219,141
Cream sold							
farms reporting	31	13	53	9	70	10	154
pounds of B. F.	30,899	11	64,683	7	43,826	12	139,408
Butter sold							
farms reporting	3	9	2	12	2	12	7
pounds	460	10					460
Sheep and lambs over 6 months							
farms reporting	60	9	63	7	54	7 1/2	177
number	1,837	7	2,388	5	2,035	3	6,260

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Ewes							
farms reporting	56	11	62	7	49	9	167
number	1,674	7	2,272	4	1,676	7	5,622
Yearling ewes							
farms reporting	53	2 1/2	50	5	41	5	144
number	406	3	430	2	302	2	1,138
Other ewes							
farms reporting	49	12	58	8	40	12	147
number	1,268	9	1,842	4	1,374	8	4,484
Sheep and lambs shorn							
farms reporting	56	10 1/2	56	10 1/2	51	6	163
number shorn	1,694	10	1,838	5	1,964	3	5,496
wool shorn (lbs.)	13,525	7	13,480	6	14,072	3	41,077
Any poultry on hand							
farms reporting	181	9	165	13	146	9	492
raised, farms reporting	158	3	145	11	125	11	428
Chicks on hand over 4 months							
farms reporting	178	10	165	12	145	9	488
number	13,232	5	11,576	11	8,341	12	33,149

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Raised							
farms reporting	157	3	144	11	121	11	422
number	22,560	3	20,478	8	15,318	9	58,356
Sold							
farms reporting	122	5	114	9	76	12 1/2	312
number	11,221	2	9,727	10	6,832	11	27,780
Turkeys over 4 months on hand							
farms reporting	5	10	7	6	6	11	18
number	23	10	36	6	89	3	148
Raised							
farms reporting	3	10	4	8	5	10	12
number	308	5	60	12	907	2	1,275
Ducks over 4 months on hand							
farms reporting	7	10	10	7	15	6	32
number	38	11	78	3	47	10	163
Raised							
farms reporting	3	13	6	9	15	3	24
number	131	8	140	5	480	1	751
Corn harvesting for all purposes							
farms reporting	172		156		150	8	478
acres	2,600	5	2,726	4	1,880	13	7,206

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Corn harvesting for grain							
farms reporting	169		151		147	8 1/2	467
acres	2,080		2,208		1,634	12	5,922
bushels	82,616		87,844		60,757	6	231,217
Cut for silage							
farms reporting	58		41		17	16	116
acres	431		384		149	16	964
tons	3,417		2,926		1,136	15	
Hogged off or grazed or cut for fodder							
farms reporting	19		18		11	6	48
acres	89		134		97	7	320
Mixed grains threshed							
farms reporting	2		2		8	7	12
Wheat threshed							
farms reporting	119		115		99	11	333
Winter wheat							
farms reporting	127		104		97	11	320
acres	1,459	10	1,722	5	1,001	15	3,994
bushels	28,470	12	39,362	6	19,763	14	89,184
Spring wheat							
farms reporting			12		2	4	14
acres			194				194
bushels			4,593				4,593

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Oats							
farms reporting	139		123		103	11	365
Threshed for grain							
farms reporting	137		123		99	11	359
acres	1,686	9	1,752	8	1,055	14	4,493
bushels	60,143	10	64,382	8	37,253	13	161,778
Cut and fed unthreshed							
farms reporting	4				7	1	11
acres	10				65	2	75
Annual legumes saved for hay							
farms reporting	32		26		12	9	70
acres	154		140		74	8	368
tons	158		212		82	11	452
Alfalfa hay							
farms reporting	96	9	79		56	19	231
acres	934		977	10	660	19	2,471
tons	1,438	9	1,314	13	1,013	19	3,765
Sweet clover hay							
farms reporting	8		31				39
acres	70		502				572
tons	68		597				665

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Clover and timothy hay alone or mixed							
farms reporting	130		88		118	1	336
acres	1,624	5	1,274	14	1,955	1	4,853
tons	1,691	9	1,292	15	1,960	11	4,943
Small grain hay							
farms reporting	3		5		2	11	10
acres	21		31				52
tons	19		39				58
All other tame hay							
farms reporting	9		2		9	7	20
acres	40				61	6	101
tons	49				58	7	107
Wild hay							
farms	2		2		2	7	6
Barley threshed							
farms reporting	32		30		21	1	83
acres	204		211		135	1	550
bushels	5,022		4,299		3,071	1	12,392
Rye threshed							
farms reporting	14		14		27	2 1/2	55
acres	72		107		197	9	376
bushels	1,033		1,517		1,974	10	4,524
Buckwheat threshed							
farms reporting	2				2	10	4

APPENDIX E (continued)

	Walton	Rank	Brookfield	Rank	Lee	Rank	Total
Irish potatoes							
farms reporting	170		146		125	10	441
acres	94 1/2		79 1/8		236	2	409 1/8
bushels	8,714		6,894		34,005	1	49,613
Sugar beets for sugar							
farms reporting	5		8		4	1	17
acres	28		85		41 1/2	1	154 1/2
tons	189		585		379	1	1,153

APPENDIX F

SURVEY OF HOME FARMS OF VOCATIONAL AGRICULTURAL STUDENTS AT WALTON TOWNSHIP UNIT SCHOOL, 1941-42 OLIVET, MICHIGAN

TABLE I

Crop	Total Acres	Number Farms Reporting	Average Acre Per Farm Reporting	Percent of Farms Reporting
Alfalfa	254	19	13.4	79.0
Red clover	33	16	20	66.7
Mammoth clover	181	7	25	29.0
Sweet clover	0	0	0	0
Soybeans hay	20.5	2	10.2	8.3
Mixed	18	2	9	8.3
Other	5	1	5	4.1
Red clover	93	6	15.5	25.0
Mammoth clover	75	4	18.7	16.6
Corn grain	500	23	21.7	95.8
Corn silage	111	9	12.3	37.5
Oats	420	23	18.3	95.8
Wheat	337	22	15.6	91.6
Barley	67	7	9.6	28.0

APPENDIX F (continued)

TABLE I (continued)

Crop	Total Acres	Number Farms Reporting	Average Acre Per Farm Reporting	Percent of Farms Reporting
Soybeans grain	5	1	5.0	4.1
Beans	344	16	21.5	67.0
Sugar beets	7	1	7.0	4.1
Potatoes	9.5	16	.6	67.0
Sudan grass	2	1	2.0	4.1
Legumes	803	23	39.1	95.8

APPENDIX F (continued)

TABLE II

Kind of Breeding Stock	Total Acres	Number of Farms Reporting	Average Number Per Farm Reporting	Percent of Farms Reporting
Dairy cows	212	10.1	21	87.5
Beef cows	56	9.3	7	25.0
Mature bulls	16	1.0	15	62.5
Heifers	32	5.2	21	87.5
Calves	84	4.7	18	75.0
Steers	22	3.1	7	29.0
Colts	20	2.2	9	37.5
Stallion				
Breeding ewes	610	61.0	10	41.6
Feeder lambs				
Brood sows	63	3.3	19	79.0
Boars 6 months	3	1.0	3	12.5
Pigs raised to 200 lbs.	351	29.3	12	50.0
Hens	1,424	74.9	19	79.0
Pullets	1,225	102.0	12	50.0
Broilers	780	195.0	4	16.7
Turkeys	170	85.0	2	8.3
Geese	5	2.5	2	8.3
Ducks	6	6.0	1	4.2

APPENDIX F (continued)

TABLE III

		Number Reporting	Percent Reporting
1.	Do you have fields that are in need of drainage	19	79.0
2.	How many acres have you limed in the last five years	465 A. 18 farms	75.0
3.	How many acres of legumes have you plowed under in the last five years	1,493 A. 19 farms	79.0
4.	How many acres of fall plowing do you average	210 A. 13 farms	54.0
5.	Do you purchase feed	10	41.6
6.	Keeping individual production records of dairy cows	6	25.0
7.	Feeding cows in proportion to individual production	9	37.5
8.	Feeding commercial mixtures for grain	6	25.00
9.	Selling cream	6	25.0
10.	Selling whole milk	17	70.8
11.	Using complex mineral	5	20.8
12.	Using special tonic feeds	6	25.0
13.	Furnishing minerals to calves	8	33.2
14.	Raising own heifers	19	79.0
15.	Testing regularly for Bangs disease	13	54.0

APPENDIX F (continued)

TABLE III (continued)

		Number Reporting	Percent Reporting
16.	Feeding dry grain mixtures to calves	20	83.2
17.	Disinfecting navel of new born calf with iodine	5	20.8
18.	Feeding hay and grain to calves fed skim milk	18	75.0
19.	Clipping tail, flanks, udder and underline of cow	2	8.3
20.	Testing regularly for tuberculosis	14	58.0
21.	Culling the poultry flock regularly throughout the year	8	33.2
22.	Culling the poultry flock once a year	12	50.0
23.	Purchasing vigorous chicks from a certified hatchery from stock that has a definite record of production	15	62.5
24.	Cleaning and disinfecting the brooder house before placing chicks in it	20	83.2
25.	Raising chicks on ground not used by poultry the previous year	8	33.2
26.	Keeping chicks and older hens separated	18	75.0
27.	Removing and killing all sick chicks	19	79.0

APPENDIX F (continued)

TABLE III (continued)

		Number Reporting	Percent Reporting
28.	Cleaning and scrubbing the laying house with hot water and lye twice a year	5	16.6
29.	Seeding the range for chickens to alfalfa	3	12.5
30.	Placing netting under the roosts to prevent hens from walking in the droppings	6	25.0
31.	Spraying the laying house with a disinfectant after cleaning	11	45.8
32.	Feeding a ration of home-grown grain	17	70.8
33.	Furnishing some sort of green feed for the flock during the winter, preferably alfalfa or alfalfa chaff	17	67.0
34.	Treating the flock for worms if affected	9	37.5
35.	Treating the flock for lice and mites	13	43.0
36.	Maintaining a system of lighting for the laying house	4	16.6
37.	Replacing old hens with pullets each year	17	70.8
38.	Providing grit for the laying flock	16	67.0
39.	Breeding and raising all hogs fattened for market	16	67.0

APPENDIX F (continued)

TABLE III (continued)

		Number Reporting	Percent Reporting
40.	Buying pigs to be fattened for market	5	20.8
41.	Keeping a good mineral mixture before hogs at all times	5	20.8
42.	Keeping or selecting pigs for breeding purposes from large, healthy litters	18	75.0
43.	Scrubbing pen and sow with warm water before farrowing	3	12.5
44.	Disinfecting farrowing pen after farrowing	2	8.3
45.	Placing pigs on pasture not used by swine the previous year	8	33.2
46.	Feeding tankage or milk regularly to brood sows and market hogs	14	58.0
47.	Feeding legume hay to sows during the winter	13	54.0
48.	Placing the sow and suckling pigs on pasture as soon as weather permits (within 7-10 days if possible)	15	62.5
49.	Painting the sow's udder to prevent anemia unless on pasture	2	8.3
50.	Eliminating external parasites with applications of used automobile oil	10	41.6

APPENDIX F (continued)

TABLE III (continued)

		Number Reporting	Percent Reporting
51.	Providing a guard rail inside farrowing pen	4	16.6
52.	Treating sheep to prevent worms	7	29.0
53.	Feeding ewes grain for about a month previous to lambing season	10	41.6
54.	Providing plenty of pasture four weeks previous to start of breeding season	6	25.0
55.	Docking lambs at 10-14 days of age	8	33.2
56.	Castrating lambs at 10-14 days of age	8	33.2
57.	Feeding lambs crushed oats and corn in a creep to which the ewes do not have access, at three weeks of age	3	12.5
58.	Trimming all ewes carefully about the rear parts and eyes previous to lambing	8	33.2
59.	Dipping for ticks and lice not less than one month after shearing	4	16.6
60.	Hauling out manure daily	6	25.0
61.	Reinforcing manure with superphosphate	3	12.5
62.	Testing soil on your farm for nitrogen, phosphorous and potassium	5	20.8

APPENDIX F (continued)

TABLE III (continued)

		Number Reporting	Percent Reporting
63.	Testing soil for lime	12	50.0
64.	Planting rye or some other cover crop in cultivated fields in the fall to prevent erosion during the winter	2	8.3
65.	Having available a shop building in which to repair farm machinery	13	54.0
66.	Varying the amount of feed fed to horses in accordance with amount of work they do	16	67.0
67.	Keeping a definite system of farm accounts	13	54.0
68.	Carrying sufficient insurance to protect farm business:	3	12.5
	Life	10	41.6
	Fire	20	83.2
	Tornado	20	83.2
	Animal	11	45.8
	Crop	11	45.8

APPENDIX F (continued)

TABLE IV

HOME FARM SHOP INVENTORY

	Number Reporting	Percent Reporting
Anvil	10	41.6
Post-drill	5	20.8
Emery wheel	10	41.6
Forge	5	20.8
Level	18	75.0
Planes	16	67.0
Saws	22	91.6
Chisel	21	87.5
Grindstone	16	67.0
Soldering outfit	14	58.0
Screw plate	4	16.6
Electricity in shop	8	33.2

APPENDIX G

ADVISORY COUNCIL MEMBERS FOR THE ADULT EDUCATION PROGRAM AT OLIVET, MICHIGAN

Name	Organization Represented
Ray Baker	Supervisor, Walton Township
Art Bishop	Olivet Chamber of Commerce
Mrs. Dorothy Branstrom	Eaton County Extension Service
Clyde Butterfield	Partello Grange
Ray DeBaun	School Board
Lyman Chamberlain	Eaton County Health Department
Darius Goodrich	Olivet Grange
Ivan Goodrich	Supervisor, Brookfield Township
Albert Hansen	Olivet Grange
R. L. Helm	Calhoun County Extension Service
Burl Henry	Calhoun County Extension Service
Wayne Hookway	Dark Corners Community
Miss Elizabeth Hunt	Eaton County Health Department
Leonard Johnson, Sr.	Five Corners Farm Bureau
Hans Kardel	Eaton County Extension Service
Tom Kerrey	Department of Vocational Agriculture, High School
Keith King	Emma Grange
Clair Lake	Special Teachers (training)
C. B. Loomis	Olivet College

APPENDIX G (continued)

Name	Organization Represented
Earl Midlan	Supervisor, Lee Township
Dr. G. C. Stucky	Eaton County Health Department
Walter W. Scott	Superintendent of Schools
Mrs. Therese Tordt	Calhoun County Extension Service
Walter Schroeder	Adult Education Program
Orville Eishen	Olivet Farm Bureau
Harold Johnson	Shop Instructor

APPENDIX H

MINUTES OF SEPTEMBER, 1946, ADVISORY COUNCIL MEETING

An advisory council of community leaders has been formed to assist with planning and evaluating the Adult Education Program for the Olivet area. The council held the first meeting Tuesday, September 24, at the high school. Representatives from various community organizations attended this meeting at the invitation of the board of education of the Walton Township Unit School. However, any interested persons are welcome to attend all meetings of the council.

Purposes and the origin of the Adult Education Program were discussed by Superintendent W. W. Scott and Director Walter Schroeder. Although the program is to be community-wide, the discussion for the first meeting was centered largely on agriculture. Mr. Schroeder presented figures on land and building valuation of two townships in the area. Special reference was made to the ranking of these townships to other townships in Eaton county.

The important agriculture enterprises of the Olivet area and the things that farmers expect to receive from the income of those enterprises were listed by the group. Such things as home conveniences, labor-saving machinery and education were mentioned. Some time was given to deciding how these needs could be achieved. Such methods as organizing farm machinery repair classes, 4-H clubs, and home

APPENDIX H (continued)

demonstration clubs, studying dairying and helping organizations in program planning were listed. It is to be the purpose of the Adult Education Program to carry out a satisfactory program that will meet the needs of the people in the community as decided by the council. Although the program is centered in the Olivet school, existing agencies and programs will be used in developing the work. Emphasis was placed on assistance and information available at the Adult Education Office for organizations and individuals.

Several times members of the council mentioned the need for the meeting of neighbors and other people in the community in a more adequate social program. Special reference was made by one member to the need of organizations for help in building attractive programs for youth. Subjects brought up to be discussed at the next meeting were the situation of part-time farmers and school reorganization. Also officers for the council will be chosen at the next meeting to be held Wednesday, October 30, at 8:00 p.m. in the agricultural room of the high school.

APPENDIX I

MINUTES FOR THE OCTOBER, 1946, ADVISORY COUNCIL MEETING

The Olivet Adult Education Advisory Council, at the October meeting, discussed farm shop work and suggested that a mobile or "traveling shop" be built and used in the Olivet area. Such a mobile shop will be equipped with a forge, acetylene welder, and carpenters' and mechanics' tools used on farms. The purpose of such a shop is to instruct farmers how to install plumbing, build small farm equipment, wire for electricity, care for, repair, maintain, and operate farm machinery, remodel farm buildings and home, install home conveniences and do any other mechanical jobs related to the farm.

Such a shop will be brought into neighborhoods one or two days a week where there are enough farmers interested in shop work and where a suitable building can be used as a work area. A trained person will be with the shop at all times to provide instruction in all phases of farm mechanics work. The work will be brought in or constructed wherever the tools are located.

Council members stated that there is a great need for such repair work in the area and much work is being held up because of a lack of material. Dealers, however,

APPENDIX I (continued)

are able to supply increasing amounts of farm supplies and parts that will be needed in such a program.

Improvement of soils through a soil conservation program and improvement of dairy herds were two other large farm problems that require attention. Council members stated that work with individual farmers and small groups should be increased.

The council elected L. E. Johnson, Sr., for chairman and Tom Kerrey for secretary. Members attending the meeting were Wayne Hookway, K. W. King, Ivan Goodrich, W. C. Butterfield, Orville Eishen, John Wilde, Albert Hansen, C. B. Loomis, W. W. Scott, Ralph Helm, T. H. Kerrey, L. E. Johnson, Sr., Art Bishop, G. A. Wegner, Marjorie Grove, Lucille Bunn and Anita Miller.

The next Advisory Council meeting is scheduled for Wednesday, December 11, at 8:00 p.m. in the agricultural room of the high school.

APPENDIX J

MINUTES FOR THE DECEMBER, 1946, ADVISORY COUNCIL MEETING

The December meeting of the Olivet Adult Education Advisory Council was held in the high school agricultural room with L. E. Johnson, Sr. presiding. Mr. Johnson was elected chairman of the group at the last meeting. Secretary Tom Kerrey read the minutes of the previous meeting.

Chairman Johnson called on Walter Schroeder, the director of the program, to give a progress report. Mr. Schroeder stated that the D.H.I.A. program was well under way with twenty-five herds being tested by agriculture students under Tom Kerrey's supervision. Most of these herds were in Eaton No. 3 D.H.I.A. who were not being tested because no man was available to do the work. December is the third month of the testing program.

Mr. Schroeder reported that two suitable shops have been located in the rural area where farm mechanics classes will be held. Organization of these classes is under way. Such a class also will be held at Walton Township Unit School in Olivet.

Considerable discussion followed on the soils phase of the adult education program.

APPENDIX J (continued)

Five general areas of soil improvement were suggested as follows:

1. Complete soil conservation plans in operation on 20 farms.
2. Ten or more improved practices in effect on 80 farms.
3. Test soil for nutrient deficiencies for all farmers requesting such services.
4. Conduct demonstrations in test strips, fertilizer plots and run-off plots.
5. Improve health through improved fertility of the soil on 50 farms.

On the last item the group suggested that Mr. Jensen of Michigan State College could give some help. Considerable discussion was held on the relationship of animal and human health as it is related to soil fertility. More work should be done locally on this problem. If farm produce can be improved nutritionally then follow-up should be done in advertising and marketing of the produce.

Emphasis was placed on small group meetings and work with individual farmers as methods of solving soil and other problems.

APPENDIX J (continued)

Members present were Mrs. Branstrom, A. Hansen, D. Goodrich, R. DeBaun, C. Lake, L. E. Johnson, Sr., H. Johnson, W. W. Scott, T. H. Kerrey, and Walter Schroeder.

Visitors were Arnold Branstrom, Ralph Wenrich, Director of Vocational Education for Michigan, Harry Nesman, Chief, Agriculture Education, State Board of Control for Vocational Education and Dr. Harold Byram, Professor of Agriculture Education, Michigan State College.

The next meeting of the Council is to be held Thursday, February 6, at 8:00 p.m. in the agricultural room of the high school.

APPENDIX K

MINUTES FOR THE FEBRUARY, 1947, ADVISORY COUNCIL MEETING

The Adult Education Advisory Council met Thursday, February 13, at the Walton Township School. Chairman L. E. Johnson, Sr., called on W. P. Schroeder for a report of activities up to the present time. Mr. Schroeder stated that there are three programs in operation as follows: (1) milk testing for twenty farmers, (2) farm machinery repair now operating at the Olivet School and (3) eight soils discussion groups with 108 persons enrolled. Preceding the report some colored slides were shown of activities in the program.

Following the report there was some discussion on reforestation in the area where land was suited to such use. It was decided to make an effort to provide trees for rural schools, civic organizations, farmers, and others who could use such trees for forest plantings or windbreaks.

Some discussion followed on the problem of rural health and the importance of maintaining soil fertility to provide nutritious products to make healthy people.

After discussing 4-H work in the community, the council felt that locating the training leaders was the first problem.

APPENDIX K (continued)

Cookies and cake were served in the cafeteria following the meeting.

The following people were present: Ray Baker, Art Bishop, Ray DeBaun, Lyman Chamberlain, Darius Goodrich, Albert Hanse, Burl Henry, Wayne Hookway, Miss Elizabeth Hunt, Leonard Johnson, Sr., Hans Kardel, Tom Kerrey and Walter Schroeder.

APPENDIX L

MILEAGE AND EXPENSE ACCOUNT

ADULT EDUCATION PROGRAM, WALTON TOWNSHIP UNIT SCHOOL

OLIVET, MICHIGAN

Date	From Olivet to	Purpose	Miles	Rate	Cost
Jan. 2	Olivet	Work on mobile unit			
3	Olivet	" " " "			
	Battle Creek	Paint sprayer parts			
		Motor parts	40		
4	Olivet	Work on mobile unit			
	Charlotte	Tools and parts for unit	22		
6	Charlotte				
	H. Kardel	Soils program			
	B. Waddell	Special teacher in soils, D. H. I. A.			
	Lansing				
	H. Nesman	Tools for mobile unit			
	Ray Clark	" " " "			
	Remington Rand	Typewriter			
	E. Lansing				
	H. Byram	Adult Program			
	G. P. Deyoe	" "			
	M.S.C. Film Service	Films	84		

APPENDIX L (continued)

Date	From Olivet to	Purpose	Miles	Rate	Cost
Jan. 7	B. Waddell	Teach soils class			
	A. Jaquette	" " "			
	L. Johnson, Sr.	" " "			
	Hunt School	Organize shop class			
	S. Treadwell	Teach farm mech. class	38		
8	R. McManus	Organize shop class			
	Clair Swan	" " "			
	Cecil Swan	" " "			
	Hall Ellsworth	" " "			
	Ray Spotts	" " "			
	Fred Verick	" " "			
	Marshall R. Helm	M. S. C. Caravan, bulletins	78		
9	Harold McConnell	Organize soils class			
	Werlin Bradley	" " "			
	George Bugbee	" " "	8		
10	Clair Lake	Organize soils class			
	Douglas Barlond	" " "			
	Bill Gallihugh	" " "			
	Olivet - Dr. Engle	" " "	41		
13	Frank Gordon	Organize soils class			
	Edwin Hester	" " "			
	Homer Bischoof	" " "	28		

APPENDIX L (continued)

Date	From Olivet to	Purpose	Miles	Rate	Cost
Jan. 13	Board of Edu. Meet	Monthly report			
14	Charlotte				
	H. Kardel	Bulletins			
	S. C. S.	Assist on soils class			
	H. McConnell	Start soils class			
	M. Neirenberger	" " "			
	D. Raidel	" " "			
	I. Baker	" " "			
	R. McManus	Organize shop class	88		
15	Hugh Oxby	Teach soils class			
	Special teachers meeting	Orient special teachers	6		
Jan. 16	H. Oxby	Sign Qualifications			
17	R. McManus	Deliver mobile unit	15		
	S. Treadwell	Class at Morrice			
	C. Walker	Use Partello Hall			
	Mrs. Wood	" " "			
	H. McConnell	Lead soils discussion	32		
18	George Bugbee	Teaching materials			
	Alton Harris	Soils class			
	Cecil Heisler	Plans for heavy duty tractor-trailer	16		
	L. B. Mott	Soils class			

APPENDIX L (continued)

Date	From Olivet to	Purpose	Miles	Rate	Cost
Jan. 20	C. Bracy	N.W. Walton soils class			
	W. Love	" " " "			
	W. Bradley	" " " " and teacher qualif. and class outlines			
	R. Cronk	Soils class			
	R. McManus	Start farm mach. class			
	Battle Creek				
	Dillon's	Welding gauge			
	Enquirer & News	Get mats and negatives			
	Motor Shop	Electric motor			
	Marshall				
	Chronicle	Deliver mat on mobile	96		
21	Charlotte				
	L. D. Lakin	S.C.S. Soils program			
	Geo. Salsbury	" " "			
	Tribune	Mat on shop			
	Stevenson's	Prints on M. S.			
	Auto Parts	Welding gas and tools			
	Eaton Rapids Journal	Mat on M. S.	74		
22	Marshall				
	A. T. Lawrence	S.C.S. Meeting			
	R. Helm	Bulletins			
	D. Barlond	Soils class			
	H. Bischoff	" "			
	F. Gordon	" "			

APPENDIX L (continued)

Date	From Olivet to	Purpose	Miles	Rate	Cost
Jan. 22	Special teachers meeting	Instruct teachers	61		
23	R. McManus	Visit shop class			
	R. Spotts	Shop class			
	E. Whittum	" "			
	R. Harkness	" "			
	M. Whittum	" "			
	E. Marquardt	" "			
	James Wood	" "			
	V. Hoke	" "			
	Milo Ashton	" "			
	Robert McClure	" "			
	Frank Gordon	Teacher qualif.	79		
24	D. Barlond	Class materials			
	A. Munn	Class on soils			
	F. Tooley	" " "			
	J. Judikee	" " "			
	C. Heisler	" " "			
	S. Treadwell	Deliver welding gas			
	Olivet Grange	Start soils class	42		
25	S. Treadwell	Shop class			
	G. Bugbee	Class material	15		

APPENDIX L (continued)

Date	From Olivet to	Purpose	Miles	Rate	Cost
Jan. 27	K. King	Class material			
	Battle Creek Dillon's	Get welding rod	41		
28	F. Gordon	Class materials			
	H. Bishop	Soils class			
	T. Stults	" "			
	H. McCaffery	" "			
	Bill Gallihugh	" "			
	L. Sours	Farm purchase	38		
29	Olivet Grange	Lead soils discussion			
	S. Treadwell	Progress of F.M. class	12		
	Teachers meeting	Instruct teachers			
30	L. B. Mott	Visit soils class	10		
TOTAL			964		

APPENDIX M

DAILY STATISTICAL AND ACTIVITY REPORT
ADULT EDUCATION PROGRAM
WALTON TOWNSHIP UNIT SCHOOL
OLIVET, MICHIGAN
DATE_____

Local phone calls (in)			
Local phone calls (out)			
Long distance calls (in)			
Long distance calls (out)			
Letters received			
Letters sent			
Bulletins given			
Office callers	Purpose	Assistance given	
Calls in community	Purpose	Assistance given	
Miles driven			
Meetings attended	Place	Purpose	Assistance
Conferences attended out of community			

APPENDIX N

NEWS RELEASE, FEBRUARY 28, 1947

WALTON TOWNSHIP UNIT SCHOOL

Carl Perry of the Eaton County Drain Commissioners office; Raymond Brigts, Calhoun County Drain Commissioner; George Salsbury, Eaton County Soil Conservationist and A. T. Lawrence, Calhoun County Soil Conservationist attended the soils discussion leaders meeting this week to discuss local soil drainage problems. The legal aspects of constructing and maintaining drains, the needs for and locations of drains were discussed. These topics will be discussed in local groups next week.

Don LeCureux, student teacher at Olivet, had charge of the meeting. Mr. LeCureux also presented a demonstration on soils and plant tissue testing. He outlined the need for testing for lime, nitrogen, phosphate and potash. He also told farmers how they could make some of these tests. Considerable interest in plant tissue testing was shown as this is a new method of determining soil nutrient needs.

W. P. Schroeder will demonstrate soil and plant tissue testing for local groups. Both kinds of testing will be done for the farmers by Mr. Schroeder at the school.

APPENDIX N (continued)

The subject for next week will be "Plans for Action." This will involve the summing up of all the previous topics and deciding what should be done to save and improve the soils of the area.

The farm machinery repair class has been extended one week and will operate at the Olivet garage through Friday, March 7.

APPENDIX O

OUTLINE FOR SECOND SOILS DISCUSSION MEETING

The Total Farm Plan for Soil Conservation

1. What is the condition of the soil in our area?

    a. What is the meaning of soil class I, II, III, IV, V, VI, VII, VIII?

    b. What is the meaning of land use capability?

    c. What are the soil hazards in this neighborhood?

    d. What and how many of acres of each soil class exist on my farm?

2. What soil problems can be solved on each farm without affecting neighboring farms?

3. What soils problems affect two or more farms in a neighborhood?

4. What are the general soil problems of the area?

5. How can some of the problems be corrected? (General changes)

APPENDIX O (continued)

6. What is the value of a total farm plan that considers soil, livestock, labor, buildings, etc.?

7. What is the purpose of Soil Conservation Service?

8. How can the S. C. S. assist in solving local soil problems?

9. Conclusions to be reached:

   a. Plan proper use of the soils.

   b. A long time plan should be considered.

   c. All the problems cannot be solved by the farmer for an individual farm.

   d. The Soil Conservation Service will give detailed assistance to farmers requesting the service.

10. Bring an outline map of your farm to the next meeting showing where the different soil classes lie and some of the problems on the farm.

APPENDIX P

SOIL IMPROVEMENT PRACTICES

(This is a copy of the check list developed and used by special instructors in neighborhood classes for local farmers.)

Place an X in the appropriate column at the right after each practice.	Doing Now	Plan to Do	Need More Information
1. Test permanent pasture soil and fertilize or lime as needed			
2. Establish one acre of alfalfa-brome pasture for each milking cow			
3. Test soil for lime and fertilize as needed			
4. Use sudan grass for emergency hay and pasture			
5. Use soy beans for emergency hay			
6. Sow 100# of 0-20-20 or equivalent per acre at seeding time in heavy soils for each year seeding is used			
7. Sow 300# of 3-9-18 or 0-9-27 on light soil at seeding time			
8. Top dress seeding on light soil after first cutting with 200-300# of 0-9-27 or 9-12-12 per acre every other year			
9. When pasturing alfalfa-brome or sweet clover, clip if crop approaches seeding stage			

APPENDIX P (continued)

	Doing Now	Plan to Do	Need More Information
10. Plant rye-grass and sweet clover in last cultivation of corn			
11. Plant cover crops in cultivated crops, especially corn			
12. Seed a legume in every grain crop			
13. Use high percent of legumes as a cover crop			
14. Plow under green crop before seed stage			
15. Always keep a crop on the soil			
16. Apply 6-8 tons barnyard manure per acre before corn			
17. Apply 0-20-0 in soil on which manure has been applied			
18. Top dress wheat with barnyard manure			
19. Watch for hunger signs in crops and fertilize when needed			
20. Test soil and plant tissue for N, P and K and fertilize as needed			
21. Strive to sow an average of 100# of fertilizer per tillable acre per year			

APPENDIX P (continued)

	Doing Now	Plan to Do	Need More Information
22. Develop and use a good cropping program			
23. Develop a cropping program to fit the soil and produce needed crops			
24. Provide adequate drainage			
25. Cooperate with neighbors on drainage problems			

APPENDIX Q

(This is a sample of monthly reports submitted to the Board of Education of the Walton Township Unit School.)

ADULT EDUCATION PROGRAM

MONTHLY REPORT

NOVEMBER 1, 1946 - DECEMBER 1, 1946

Three important parts of the agricultural improvement program were developed in November. One part was in planning and the other two were in action.

In two interviews with men in the sociology and anthropology department of Michigan State College we decided to make several surveys in this area to determine:

1. What all people in the different areas and neighborhoods are thinking about as it applies to this program.
2. What people think should be done to improve the present situation and how the changes should take place.
3. What cleavages exist in the area by using a questionnaire with high school students.

Dr. C. P. Loomis, Dr. Schuler and Dr. Thaden will direct this work. The results will be of importance in giving direction not only to the Adult Program but the

APPENDIX Q (continued)

whole school program from the kindergarten through the twelfth grades.

The milk testing program became a reality when herds of 25 farmers were tested for butterfat by students from the department of vocational agriculture under Mr. Kerrey's supervision. The first meeting was held November 19th with F. F. A. boys and herd owners present to discuss common problems. Monthly meetings will be held in the future to discuss dairy farm problems.

The third activity that is developing is the use of a mobile shop unit in the rural area. A six-ton, surplus (new), four-wheeled, navy mobile shop has been secured by the school for transportation charges. Most of the tools were removed by another school. However, a Barrett brake drum lathe and lining riveter with all the attachments, an air hammer and a portable hydraulic press with attachments are with the unit. A Wyllis motor powered 110 volt generator and air compressor are in a separate unit on the front of the unit. All the equipment works perfectly. A valve refacer is yet to be secured. All tools, not including the motor, generator and air compressor, carry a value of about $1,000.

APPENDIX Q (continued)

Three shops have been located in which to use this unit. One is on the farm of Vern Dowding near Narrow Lake. The second one is on the farm of Robert McManus near the Boody School and the third one is on the farm of L. E. Johnson. Vern Dowding has consented to teach classes in farm shop work in these places using this mobile equipment. Instruction will be given in the areas listed in the general outline of the program. Work will begin about January 1st.

This activity should do these things:

1. Teach farmers how to do the mechanical jobs that they should know how to do.
2. Provide better farm equipment to do a more efficient job of farming.
3. Provide cash, in money saved, to buy much needed home conveniences, more machinery, food, clothing, education and other things to make farm life better.
4. Provide labor-saving devices to make farming easier.

Classes in farm machinery repair will be offered at the Walton Township Unit School about January 6. Soils

APPENDIX Q (continued)

classes are being organized by Mr. Kerrey. Other soils classes to be taught by special teachers will be started about January 6 in outlying areas.

For consideration of the Board of Education:

1. A limited amount of equipment is available at the school to put on the mobile unit. There is a great deficiency of power tools. We are working to get some of these. There is also a shortage of hand carpentry tools and some mechanics tools. Fifty dollars would be a start in securing some of the items. A local hardware store will give the school excellent prices.
2. Some cost will be attached to making the surveys mentioned above.

Should the cost be charged to the funds of this program?

Respectfully submitted,

Walter P. Schroeder

APPENDIX R

(This is the first semi-annual report presented to the Advisory Council)

ADULT EDUCATION PROGRAM

SEMI-ANNUAL REPORT

AUGUST 1, 1946 - FEBRUARY 1, 1947

With the passing of six months several phases of the Adult Education Program have been developed. With the aid of the Olivet Board of Education and the Adult Education Advisory Council three projects in community betterment have been inaugurated. These are:

(1). The Dairy Herd Improvement Program.

(2). The Soils Improvement Program.

(3). The Farm Machinery Repair Program.

The first project to be started was the Dairy Herd Improvement Program. This program is a special service to the farmers of the area who want herds tested at this time when regular D.H.I.A. testers are not available. This is an owner-sampling type of testing with the testing and computing done in the school by the agricultural students under the supervision of Mr. Kerrey. Twenty farmers are receiving this service which was started in October.

APPENDIX R (continued)

The council considered that the soil conditions of the area needed attention. An intensive conservation program was suggested. Through the cooperation of the Extension Service and the Soil Conservation Service in Eaton and Calhoun Counties, the program was started in January. The method of solving local problems through neighborhood discussion groups was put in action.

Eight neighborhood groups with local leaders were started in various parts of the Olivet community area.

The goals for the soils program which were suggested at the last Advisory Council meeting are as follows:

1. Complete soil conservation plans in operation on 20 farms.
2. Ten or more improved practices in effect on 80 farms.
3. Test soil for nutrient deficiencies for all farmers requesting such services.
4. Conduct demonstrations in test strips, fertilizer plots and run-off plots.
5. Improve health through improved fertility of the soil on 50 farms.

APPENDIX R (continued)

Although it is too early to determine the degree of achievement of the goals, there are at present 107 people enrolled in the eight discussion groups. It is considered that farmers in each group will develop plans for action in each locality.

An unlisted goal is also being reached in the neighborhoods of the soils discussion meetings. That is, neighbors are meeting together in homes and incidentally considering other local problems in an informal way. The most successful group has over 20 in attendance at every meeting. Husbands and wives both attend in this group. Definite social benefits are being realized in this group. A sense of community responsibility and solidarity is being achieved in all the groups but more so in this group, which meets in southwest Walton and is lead by George Bugbee.

The third project to be developed was the farm machinery repair classes. Through the use of a mobile shop unit, secured from the war surplus, outlying centers can be serviced by this program. The council felt that this program was definitely needed and would bring very practical results.

APPENDIX R (continued)

The unit, under the supervision of Sterling Treadwell, was operated first at the shop of Robert McManus with moderate success. The summary below shows the results.

At present a farm machinery class is being operated at the Olivet bus garage.

A third center of operation is being planned at the shop of Vern Dowding near Narrow Lake. Relatively few farmers seem to be interested in this program even though expert teaching and good equipment is available for their use.

Below is a brief statistical summary of the Adult Program:

Farmers carrying on dairy herd improvement work	20
Persons enrolled in soils classes.	107
Soil discussion centers	8
Machinery repair centers	2
Men enrolled in machinery repair classes	20
Finish value of machinery repaired in the McManus shop	$4,470

APPENDIX R (continued)

Increase in value as a result of the repair work	$1,020
Farm calls	111
Non-farm calls	67
Conferences attended	5
Meetings conducted	15
Letters received	48
Letters sent	282
Post cards sent	254

Although the above report does not necessarily show changes in farming or community life, it does show a possible beginning of change. In the next six months with personal assistance on farm problems some visible changes should be accomplished.

Thesis